Contract Provisions

For Construction of:

SR 544 MP 7.54 TO MP 7.70

NOOKSACK RIVER OVERFLOW CULVERT ER PERMANENT REPAIR

WHATCOM COUNTY

VOLUME 1 OF 2

F.A.PROJECT NO. 2C01006-4

Washington State Department of Transportation

Washington State
Department of Transportation
Olympia, Washington 98504

SR 544
NOOKSACK RIVER OVERFLOW CULVERT
ER PERMANENT REPAIR
26A012
Whatcom County

Notice to All Planholders

The Engineer assigned to answer questions regarding these bid documents, show this project to prospective bidders, and act as the Contracting Agency's representative who directly supervises the engineering and administration of this project is:

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REGISTERED
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Date: 2026.09.25 12:00:44 -07'00'

Mark Gaines, P.E.
State Design Engineer

As the Engineer in direct responsible charge of developing these contract provisions, I certify these provisions have been developed or incorporated into this project under my supervision or as a result of certified specifications provided by other licensed professionals.

SR 544
NOOKSACK RIVER OVERFLOW CULVERT
ER PERMANENT REPAIR
26A012

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INTRODUCTION

This Contract shall be constructed in accordance with the 2027 Standard Specifications for Road, Bridge, and Municipal Construction.

SPECIAL PROVISIONS

Several types of Special Provisions are included in this contract; General, Region, and Project Specific. Special Provisions types are differentiated as follows:

(date)	General Special Provision
(Region[1] date)	Region Special Provision
(******)	Project Specific Special Provision

General Special Provisions are designated with the date they were last updated and include standardized language that is used on applicable projects within Washington State. The only difference since the specified date from one project to another is the inclusion of variable project data, inserted as a "fill-in".

Region Special Provisions are designated with the Region or Division abbreviation followed by the date they were last updated and include standardized language that is used on applicable projects within the designated Region or Division. The only difference since the date specified from one project to another is the inclusion of variable project data, inserted as a "fill-in". Region and Division designations are as follows:

Region[1]	
ER	Eastern Region
NCR	North Central Region
NWR	Northwest Region
OR	Olympic Region
SCR	South Central Region
SWR	Southwest Region
WSF	Washington State Ferries Division

Project Specific Special Provisions are designated with six asterisks instead of a date. These are provisions that normally appear only in the contract for which they were developed.

Division 1
General Requirements

DESCRIPTION OF WORK

(March 13, 1995)
This Contract provides for the improvement of *** SR 544 in Whatcom County by relocating buried utilities, removing the existing 135-foot long arch culvert No. 544/9c, construct a new bridge south of the existing Nooksack River Bridge No. 544/10, perform partial replacement of the existing Nooksack River Bridge No. 544/10 south approach slab adjacent sidewalk and traffic barrier to accommodate and install a roadway bypass, install new utilities and drainage, construct scour countermeasures, and restore the area with landscaping *** and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

Bid Procedures and Conditions

Examination of Plans, Specifications and Site of Work

General

Section 1-02.4(1) is supplemented with the following:

(September 3, 2019)
The Reference Information for this project is available for review by the bidder at the following location:

*** https://ftp.wsdot.wa.gov/contracts/, organized by Contract Number and Project Title, in the Reference Information subfolder, and is made available for informational purposes only. ***

The Reference Information includes the following:

***

- As Built Plans SR 544 Nooksack River Bridges 544/9 & 10
- Electronic Design Data

***

Preparation of Proposal

Section 1-02.6 is supplemented with the following:

(October 5, 2026)
Bidder Questionnaire
The Bidder shall submit with their Bid a Bidder Questionnaire form (WSDOT Form #272-022). This shall be filled out for each firm who submitted a bid or quote in attempt to participate in the project whether they were successful or not and include the following information:

1. Firm name;

2. Firm address including ZIP code;

3. Firm's status as a DBE or non-DBE;

4. NAICS code applicable to each scope of work the firm sought to perform in its bid;

5. Age of the firm; and

6. The annual gross receipts of the firm. The Bidder may obtain this information by asking each firm to indicate into what gross receipts bracket they fit (less than $1 million; $1-3 million; $3-6 million; $6-10 million; $10-20 million; $20-30.72 million; or greater than $30.72 million) rather than requesting an exact figure from the firm.

This form shall be received at the same location and no later than the time required for the delivery of the Proposal. This form is meant to provide the Contracting Agency with the above information so reasonable care shall be taken to complete the form as accurately as possible, and the questionnaire shall be corrected by the Bidder if requested by the Contracting Agency.

Bid Deposit

The last sentence of the first paragraph of Section 1-02.7 is revised to read:

(October 5, 2026)
The Surety shall: (1) be registered with the Washington State Insurance Commissioner, and (2) be listed as an active company under the "Surety" coverage type within the database published by the Office of the Insurance Commissioner at https://fortress.wa.gov/oic/consumertoolkit/Search.aspx.

Public Opening of Proposals

Section 1-02.12 is supplemented with the following:

(August 3, 2015)
Date of Opening Bids
The bid opening date for this project is *** December 2, 2026 ***. Bids received will be publicly opened and read after 11:00:59 A. M. Pacific Time on this date.

Irregular Proposals

(October 5, 2026)
Item n, under Item 1 in Section 1-02.13, is deleted.

Scope of the Work

Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

Section 1-04.2 is supplemented with the following:

(November 20, 2023)
Document Control
This specification applies to project documentation and correspondence that occurs after execution of the Contract. The Contractor shall submit all project documentation and correspondence for this Contract in electronic format utilizing the WSDOT Unifier system. Documents that are received by means other than the WSDOT Unifier system will be rejected, except as allowed by this special provision or specifically approved by the Engineer.

The Engineer may reject documents that are deemed unsuitable. This includes documents that are illegible, unreadable, locked, etc. Forms that require further information from WSDOT must be unlocked.

The Contractor shall submit to the Contracting Agency a Unifier Access Request Form (WSDOT Form 134-092) to WSDOT e-Construction Support (e-ConstructionSupport@wsdot.wa.gov) designating all individuals requiring access to WSDOT Unifier no later than 5 days following Contract Award. Training for WSDOT Unifier will be provided by WSDOT at no cost to the Contractor. Throughout the life of the Project, all changes to the Contractor's personnel who require access to the WSDOT Unifier system shall be submitted on a Unifier Access Request Form.

All signed documents shall be in PDF format and will require an electronic signature. An electronic signature is defined as a symbol, or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record. All signed documents shall be in PDF format.

WSDOT has provided an application to be used to apply electronic signatures to the following documents:

Change Orders that are not Minor Change Orders
421-009 Release – Retained Percentage (Except Landscaping)
134-146 Final Contract Voucher Certificate

When the Contract specifies that documentation is to be submitted through other web-based systems, such as the Diversity Management and Compliance System, or email addresses, the Contractor shall utilize those systems and email addresses accordingly.

Before a Completion Date will be established by the Contracting Agency, all contractor active tasks in Unifier shall be closed out or acknowledged.

All costs for submitting project documentation electronically shall be included in the Contract prices for the Bid items of Work involved.

Procedure, Protest, and Dispute by the Contractor

Section 1-04.5 is supplemented with the following:

(March 9, 2026)

Project Partnering

The Engineer and the Contractor's Project Manager (PM) will plan and host a Project Partnering workshop as soon as practical after Contract execution. The objective of this Partnering workshop is to promote open lines of communication and teamwork between the Contracting Agency and Contractor staff for the effective completion of the work, and to the standard of quality that will be a source of pride to both the Contracting Agency and the Contractor. Commitments made by both parties shall be memorialized in a Project Partnering Agreement at the conclusion of the Partnering workshop. The Partnering agreement will not affect the terms of the Contract. It is intended only to establish an environment of cooperation and mutual understanding between the parties.

The planning and execution of the Partnering process is intended to be a collaborative effort between the Engineer and the PM. The length of the partnering workshop should be commensurate with the size and complexity of the project, and familiarity of the parties. For simple projects an expanded pre-construction meeting may suffice. The partnering workshop may be facilitated by the Engineer, the Engineer and PM, or a mutually agreeable Partnering Facilitator (PF). Selection of a PF, dates and location of the

workshops, materials needed for the workshop, frequency and location for follow up meetings, and estimated cost associated with this effort should be discussed and agreed to prior to moving forward with the Partnering process.

An initial 1 day (or half day) facilitated Project Partnering workshop is recommended to initiate the partnering agreement.

The cost to retain the services of a Partnering Facilitator (if mutually selected as the PF), locate and rent a neutral location to hold the workshop (if held offsite), and any additional materials needed to host the workshop, will be paid by the Contractor. The Partnering Field Guide is available as a resource to the Engineer and PM to assist in the planning of the Partnering session(s) at the following link:

https://wsdot.wa.gov/publications/fulltext/construction/WSDOTProjects-Partnering-FieldGuide.pdf

The Contracting Agency will reimburse invoice cost for the Contractor provided Partnering Facilitator, facilities and materials at a rate of 50% under the Bid item, “Project Partnering”.

After the initial Partnering workshop, quarterly follow-up meetings on projects with over 120 working days shall be scheduled to evaluate how the Partnering process is working, acknowledge successes and opportunities for improvement.

When the Project Engineer and Contractor’s Project Manager have determined recognition is warranted, the cost for meals and awards for recognition of project partnering success shall be borne by each party. Expenses shall be divided such that each party pays for their pro rata share of the expenses based on the number of people receiving the meal or award. Reimbursement for expenses initially paid by one party will be made to the other party under the Bid item, “Project Partnering”.

Payment

“Project Partnering”, by calculation.

“Project Partnering” will be calculated and paid for as described above.

Control of Work

Conformity with and Deviations from Plans and Stakes

Section 1-05.4 is supplemented with the following:

(September 3, 2024)

Contractor Surveying - Structure

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

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of bridges, noise walls, retaining walls, buried structures, and marine structures. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the plans “DO NOT DISTURB” shall be protected throughout the length of the project or be replaced at the Contractor’s expense.

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

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

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

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

2. Establish, by placing hubs and/or marked stakes, the location with offsets of foundation shafts and piles.

3. Establish offsets to footing centerline of bearing for structure excavation.

4. Establish offsets to footing centerline of bearing for footing forms.

5. Establish wing wall, retaining wall, noise wall, and buried structure horizontal alignment.

6. Establish retaining wall top of wall profile grade.

7. Establish buried structure profile grade.

8. Establish elevation benchmarks for all substructure formwork.

9. Check elevations at top of footing concrete line inside footing formwork immediately prior to concrete placement.

10. Check column location and pier centerline of bearing at top of footing immediately prior to concrete placement.

11. Establish location and plumbness of column forms, and monitor column plumbness during concrete placement.

12. Establish pier cap and crossbeam top and bottom elevations and centerline of bearing.

13. Check pier cap and crossbeam top and bottom elevations and centerline of bearing prior to and during concrete placement.

14. Establish grout pad locations and elevations.

15. Establish structure bearing locations and elevations, including locations of anchor bolt assemblies.

16. Establish box girder bottom slab grades and locations.

17. Establish girder and/or web wall profiles and locations.

18. Establish diaphragm locations and centerline of bearing.

19. Establish roadway slab alignment, grades and provide dimensions from top of girder to top of roadway slab. Set elevations for deck paving machine rails.

20. Establish traffic barrier and curb profile.

21. Profile all girders prior to the placement of any deadload or construction live load that may affect the girder's profile.

22. Establish locations for marine structures including fixed and floating berthing structures, vehicle and pedestrian foundations and spans, and marine-based buildings.

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

The Contractor shall submit the computed elevations at the top of bridge decks as a Type 2 Working Drawing. To compute top of bridge deck elevations, elevations shall be taken at the tenth points along the centerline of each girder web from center-to-center of bearing. For girders exceeding 100 feet in length, the elevations shall be taken at equivalent intervals not to exceed 10 feet.

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

		Vertical	Horizontal
1.	Stationing on structures		±0.02 feet
2.	Alignment on structures		±0.02 feet
3.	Superstructure elevations	±0.01 feet variation from plan elevation	
4.	Substructure	±0.02 feet variation from Plan grades.	

Buried structures shall be within the tolerances described in Section 6-20.3.

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

When staking the following items, the Contractor shall perform independent checks from different secondary control to ensure that the points staked for these items are within the specified survey accuracy tolerances:

Piles
Shafts
Footings
Columns

The Contractor shall calculate coordinates for the points associated with piles, shafts, footings and columns. The Contracting Agency will verify these coordinates prior to issuing approval to the Contractor for commencing with the survey work. The Contracting Agency will require up to seven calendar days from the date the data is received to issuing approval.

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

Payment

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

"Structure Surveying", lump sum.

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

(January 13, 2021)

Contractor Surveying - Roadway

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

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the roadbed, drainage, surfacing, paving, channelization and pavement marking, illumination and signals, guardrails and barriers, and signing. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

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

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

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

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

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

2. Establish, the centerlines of all alignments, by placing hubs, stakes, or marks on centerline or on offsets to centerline at all curve points (PCs, PTs, and PIs) and at points on the alignments spaced no further than 50 feet.

3. Establish clearing limits, placing stakes at all angle points and at intermediate points not more than 50 feet apart. The clearing and grubbing limits shall be 5 feet beyond the toe of a fill and 10 feet beyond the top of a cut unless otherwise shown in the Plans.

4. Establish grading limits, placing slope stakes at centerline increments not more than 50 feet apart. Establish offset reference to all slope stakes. If Global Positioning Satellite (GPS) Machine Controls are used to provide grade control, then slope stakes may be omitted at the discretion of the Contractor

5. Establish the horizontal and vertical location of all drainage features, placing offset stakes to all drainage structures and to pipes at a horizontal interval not greater than 25 feet.

6. Establish roadbed and surfacing elevations by placing stakes at the top of subgrade and at the top of each course of surfacing. Subgrade and surfacing stakes shall be set at horizontal intervals not greater than 50 feet in tangent sections, 25 feet in curve sections with a radius less than 300 feet, and at 10-foot intervals in intersection radii with a radius less than 10 feet. Transversely, stakes shall be placed at all locations where the roadway slope changes and at additional points such that the transverse spacing of stakes is not more than 12 feet. If GPS Machine Controls are used to provide grade control, then roadbed and surfacing stakes may be omitted at the discretion of the Contractor.

7. Establish intermediate elevation benchmarks as needed to check work throughout the project.

8. Provide references for paving pins at 25-foot intervals or provide simultaneous surveying to establish location and elevation of paving pins as they are being placed.

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

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

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

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

	Vertical	Horizontal
Slope stakes	±0.10 feet	±0.10 feet
Subgrade grade stakes set 0.04 feet below grade	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
Stationing on roadway	N/A	±0.1 feet
Alignment on roadway	N/A	±0.04 feet
Surfacing grade stakes	±0.01 feet	±0.5 feet (parallel to alignment) ±0.1 feet (normal to alignment)
Roadway paving pins for surfacing or paving	±0.01 feet	±0.2 feet (parallel to alignment) ±0.1 feet (normal to alignment)

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

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

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

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

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

Payment

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

"Roadway Surveying", lump sum.

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

Final Acceptance

The second paragraph of Section 1-05.12 is revised to read:

(October 5, 2026)

The Contractor agrees that neither Completion nor final acceptance shall relieve the Contractor of the responsibility to indemnify, defend, and protect the Contracting Agency against all claims or losses (i) which may fall within the obligations of Section 1-07.14 herein, or (ii) resulting from the failure of the Contractor or subcontractors to pay all laborers, mechanics, subcontractors, material persons, or others who provides labor, supplies, or provisions for carrying out the Work or for payments required for unemployment compensation under Title 50 RCW or for industrial insurance and medical aid required under Title 51 RCW. To the extent applicable, the Contractor shall also continue to satisfy any and all requirements of Section 1-07.18 which involve obligations beyond final acceptance.

Cooperation with Other Contractors

Section 1-05.14 is supplemented with the following:

(March 13, 1995)

Other Contracts Or Other Work

It is anticipated that the following work adjacent to or within the limits of this project will be performed by others during the course of this project and will require coordination of the work:

*** WSDOT project SR 546 Unnamed Tributary to Fishtrap Creek - Fish Passage
SR 546, MP 1.40 to MP 2.10
Construction Summer 2028
Contact Roger Weiss, P.E. 360-788-7416

WSDOT project SR 546 / SR 539 to Fishtrap Creek - Paving
SR 546, MP 0.03 to MP 2.45
Construction Summer 2028
Contact Roger Weiss, P.E. 360-788-7416
***

(March 20, 2025)

Speed Safety Camera System Vendor

Coordination with a vendor managed by the Contracting Agency to provide portable Speed Safety Camera Systems (SSCS) when workers are present within the work zone

may be required. If a SSCS is used on this Contract, the SSCS vendor's field personnel will need to enter the temporary traffic control zone to place and remove required signage and equipment to implement the automated speed enforcement. The SSCS vendor may document the work zone traffic control setup provided by the Contractor to confirm workers are present prior to commencing operations with the SSCS.

The Engineer will set up a coordination meeting between the Contractor's designated traffic control manager, traffic control supervisor, the Contracting Agency, and the SSCS vendor's field personnel a minimum of 5 working days prior to the first anticipated implementation date of the SSCS. At a minimum, coordination will include the following:

1. The anticipated date and time the SSCS vendor will be on site.

2. The expected work area location and temporary traffic control or staged traffic plan that will be in place when the vendor will be on site, including the location(s) of any Contractor-provided Radar Speed Display Sign (RSDS) if included in the project.

3. Location for the SSCS vendor's enforcement unit, photo enforcement sign, and RSDS (may be vendor-provided if one is not provided by the Contractor).

4. Provide contact information between Contractor's traffic control manager, traffic control supervisor, Contracting Agency staff, and SSCS vendor.

Control of Material

Section 1-06 is supplemented with the following:

Buy America Requirements

(October 5, 2026)

General Requirements

In accordance with Buy America requirements contained in 23 CFR 635.410 and 2 CFR 184, the following materials must be produced in the United States:

1. All Iron or Steel Products used in the project. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. All Manufactured Products used in the project. This means the Manufactured Product meets both the "final assembly requirement" and the "55 percent requirement". To meet the "final assembly requirement" the Manufactured Product must have been manufactured in the United States. To meet the "55 percent requirement" all of the components of the Manufactured Product that are mined, produced, or manufactured in the United States must be greater than 55 percent of the total cost of all components of the Manufactured Product.

3. All Construction Materials used in the project. This means that all manufacturing processes for the Construction Material occurred in the United States.

An article, material, or supply will be classified in one of four categories: 1) Iron or Steel Product, 2) Manufactured Product, 3) Construction Material, or 4) Excluded Material. Only a single category will apply to an item except as follows:

1. With respect to precast concrete products that are classified as Manufactured Products, the components of precast concrete products that consist wholly or predominantly of iron, steel, or combination of both shall meet the requirements for and be tracked as an Iron or Steel Product. The item shall also meet the requirements for and be tracked as a Manufactured Product.

2. With respect to intelligent transportation systems and other electronic hardware systems that are classified as Manufactured Products, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron, steel, or a combination of both, shall meet the requirements for and be tracked as an Iron or Steel Product. The item shall also meet the requirements for and be tracked as a Manufactured Product.

Some Contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a Construction Material, a Manufactured Product, an Iron or Steel Product, or an Excluded Material based on their composition when they arrive at the staging area or work site.

Definitions

1. Construction Material: Defined as any article, material, or supply brought to the construction site for incorporation into the final product. Construction Materials include an article, material, or supply that is or consists primarily of:

   a. Non-ferrous metals including all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly;

   b. Plastic and polymer-based products including all manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form);

   c. Glass including all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting);

   d. Fiber optic cable (includes drop cable) including all manufacturing processes, from initial ribboning (if applicable), through buffering, fiber stranding and jacketing, (fiber optic cable also includes the standards for glass and optical fiber);

   e. Optical fiber including all manufacturing processes, from the initial preform fabrication stage, though the completion of the draw;

   f. Lumber including all manufacturing processes, from initial debarking through treatment and planing;

   g. Drywall including all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels; or

h. Engineered wood including all manufacturing processes from the initial combination of constituent materials until the wood product is in its final form.

If a Construction Material is not manufactured in the United States it shall be considered a Foreign Construction Material.

2. Excluded Material: A material where Buy America requirements do not apply. This includes the following:

   a. Materials excluded by Section 70917(c) of the Buy America, Build America Act with respect to aggregates this includes cement and cementitious materials, aggregates such as stone, sand, or gravel or aggregate binding agents or additives. These materials shall be classified as Excluded Materials based on the composition when brought to the work site. It also includes combinations of these excluded materials when mixtures of Excluded Materials are delivered to the work site without final form for incorporation into the project (i.e. wet concrete and HMA). If they are formed prior to delivery, they are a Manufactured Product and not an Excluded Material.

   b. Temporary materials that are not being permanently incorporated into the project.

   c. Raw or minimal processed materials where the article, material, or supply does not fall into any of the categories, as it is not a Manufactured Product, an Iron or Steel Product, or a Construction Material and when these materials are delivered to the work site without final form for incorporation into the product (i.e. seed mix and topsoil). If they are formed prior to delivery, and are not an Iron or Steel Product or a Construction Material, they are a Manufactured Product and not an Excluded Material.

3. Iron or Steel Product: An article, material, or supply that consist of wholly or predominantly of iron or steel or a combination of both. To be considered predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is based on a good faith estimate of the cost of the iron or steel components.

4. Manufactured Product: A Manufactured Product includes any item produced as a result of the manufacturing process. Items that should be treated as a manufactured product (rather than a Construction Material) are: 1) items that consist of two or more of the listed Construction Materials that have been combined together through a manufacturing process, and 2) items that include at least one of the listed Construction Materials as defined above, combined with a material that is not listed through a manufacturing process.

   If a product is not an Iron or Steel Product, a Construction Material, or an Excluded Material, it is a Manufactured Product.

   If a manufactured material is not manufactured in the United States, it shall be considered a Foreign Manufactured Product.

5. United States: To further define the coverage, a domestic product is a material that was produced in one of the 50 states, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

Iron or Steel Product Requirements

Iron or Steel Products that are permanently incorporated into the project shall consist of American-made materials only. Buy America requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total Contract cost or $2,500.00, whichever is greater. The total Contract cost is the final Contract cost, including any modifications due to change orders, at the end of the project.

American-made material is defined as material having all manufacturing processes occurring domestically.

If domestically produced steel billets or iron ingots are exported outside of the United States, as defined above, for any manufacturing process then the resulting product does not conform to the Buy America requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the Buy America requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.

Manufacturing begins with the initial melting and mixing and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

Due to a nationwide waiver, Buy America requirements do not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron ore processed, pelletized, and reduced iron ore.

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:

    a. Open hearth furnace.

    b. Basic oxygen.

    c. Electric furnace.

    d. Direct reduction.

2. Rolling, heat treating, and any other similar processing.

3. Fabrication of the products:

    a. Spinning wire into cable or strand.

    b. Corrugating and rolling into culverts.

    c. Shop fabrication.

A certification of materials origin will be required for all Iron or Steel Products prior to such items being incorporated into the permanent Work. The Contractor will not receive payment until the certification is received by the Engineer. The certification shall be on WSDOT Form 350-109 provided by the Engineer, or such other form approved by the Contracting Agency, provided it contains the same information as WSDOT Form 350-109.

Manufactured Products and Construction Material Requirements

A Contractor provided certification of materials origin will be required before each progress estimate or payment. The Contractor will not receive payment until the certification is received by the Engineer. The Contractor shall certify that all Manufactured Products and all Construction Materials installed during the current progress estimate period meet the Buy America requirements. The certification shall be on WSDOT Form 350-107 provided by the Engineer, or such other form approved by the Contracting Agency, provided it contains the same information as WSDOT Form 350-107.

Iron or Steel Products in a Manufactured Product

In addition to providing the certification of materials origin for the Manufactured Product, the Iron or Steel Products in a Manufactured Product are subject to the Buy America requirements as follows:

1. When a precast concrete product is classified as a Manufactured Product, the components that are an Iron or Steel Product shall follow the “Iron or Steel Requirements” of this Specification.

2. When an electronic hardware system such as an intelligent transportation system is classified as a Manufactured Product, the cabinets and the other enclosures of such systems that are an Iron or Steel Product shall follow the “Iron or Steel Requirements” of this Specification.

Waiver for De Minimis Costs

Minor amounts of Foreign Construction Materials and Foreign Manufactured Products may be utilized in this project, provided that the total cost of the Foreign Construction Materials and Foreign Manufactured Products does not exceed $1,000,000 and does not exceed 5 percent of the total applicable material costs calculated as follows:

$$\frac{Total\ cost\ of\ Foreign\ Construction\ Materials + Total\ cost\ of\ Foreign\ Manufactured\ Products}{Total\ applicable\ material\ costs} < 0.05$$

The total applicable material costs shall be the sum of the costs of all Construction Materials, all Iron or Steel Products, and all Manufactured Products. Total applicable material costs does not include Excluded Materials.

(October 5, 2022)

The following items of work containing steel, iron or other construction materials are considered to be temporary and are excluded from the Build America/Buy America requirements contained in Public Law 117-58 (Infrastructure Investment and Jobs Act):

***
Shoring or Extra Excavation Class B
(Temporary) Ductile Iron Casing Pipe for Force Main 20 In. Diam.
(94 L.F. per Sheet UT2)
(Temporary) Ductile Iron Casing Pipe for Water Main 20 In. Diam.
(94 L.F. per Sheet UT3)
Temporary Bridge
Temporary Pedestrian Bridge
Shoring or Extra Excavation Cl. A
Erosion Control and Water Pollution Prevention
Temporary Barrier
Project Temporary Traffic Control
Gravity Block Wall
***

Legal Relations and Responsibilities to the Public

Laws to be Observed

Section 1-07.1 is supplemented with the following:

(******)

City of Everson Noise Exemption/Variance Conditions

The jurisdiction(s) listed below has granted a nighttime noise exemption and/or variance to its respective noise control code and WAC 173-60 to allow Contracting Agency representatives to perform nighttime Work under the conditions as listed below.

Jurisdiction	Expiration Date
City of Everson	12/31/2028

This exemption/variance allows the Contractor to exceed the local noise ordinance levels. All nighttime Work activities require approved noise exemptions or variances from the listed jurisdiction(s) including nighttime Work within the Contracting Agency's Right-of-Way.

The Contractor shall perform the following measures to minimize construction noise:

1. All trucks performing export haul shall have well maintained bed liners as inspected and accepted by the Engineer.

2. Truck tailgate banging is prohibited. All truck tailgates shall be secured to prevent excessive noise from banging.

3. A copy of the noise exemption and/or variance shall be kept on the project site at all times.

General

Failure of the Contractor to perform all obligations under this Special Provision will result in the suspension of all night Work until a corrective Work plan is accepted by the Engineer. Working days will continue to accrue during the period of suspension.

The Contractor shall be responsible for obtaining all exemptions or variances to perform nighttime Work outside the project limits such as staging areas. A copy of each exemption or variance obtained by the Contractor shall be provided to the Contracting Agency before proceeding with the nighttime Work.

Other noise mitigation measures may be required, and it is understood that the Contractor is responsible for devising methods that comply with all ordinances. Compliance with the above noise mitigation measures shall not be considered a warranty that the equipment or the activity will comply with all local regulations.

Payment

All costs to comply with the above noise exemption/variance requirements shall be included in the associated items of Work.

(March 9, 2026)
Unmanned Aircraft Systems (UAS)

The procurement and/or use of any drone (UAS) on this Contract shall comply with the following directives:

- National Defense Authorization Act (NDAA) – American Security Drone Act of 2023 (ASDA, Pub. L. No. 118-31).

- Office of Management and Budget Memorandum M-26-02 – Restrictions on using federal funds to purchase or operate prohibited foreign UAS.

Contractors, subcontractors, and lower-tier subcontractors shall not procure, operate, maintain, or process data from prohibited UAS manufactured or assembled by "covered foreign entities" as defined in the Federal Acquisition Security Council (FASC) in the performance of this Contract.

Environmental Regulations

Section 1-07.5 is supplemented with the following:

(September 20, 2010)
Environmental Commitments

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the various documents referenced in the Special Provision **Permits and Licenses**. Throughout the work, the Contractor shall comply with the following requirements:

(April 1, 2019)
The Contractor shall notify the Engineer a minimum of *** 15 *** calendar days prior to commencing any work in sensitive areas, mitigation areas, and wetland buffers. Installation of construction fencing is excluded from this notice requirement.

(April 1, 2019)

No *** equipment staging, fueling or maintenance *** is allowed within *** 200 *** feet of *** wetlands or surface waters ***.

(August 3, 2009)

Payment

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

State Department of Fish And Wildlife

Section 1-07.5(2) is supplemented with the following:

(April 2, 2018)

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the Washington State Department of Fish and Wildlife. Throughout the work, the Contractor shall comply with the following requirements:

(******)

The Contractor may begin Work below the Ordinary High Water Line on July 15 and must complete all the Work by September 30. Work below the Ordinary High Water Line may also begin prior to July 15 if the overflow channel is dry, which has historically occurred by June 1. With permission by the Area Habitat Biologist to ensure conditions are conducive for Work, Work outside the work window, in the overflow channel, may be done during low flow periods as long as the Work is outside the wetted perimeter.

(April 2, 2018)

All costs to comply with this special provision are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the Contract.

State Department of Ecology

Section 1-07.5(3) is supplemented with the following:

(April 2, 2018)

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the Washington State Department of Ecology. Throughout the work, the Contractor shall comply with the following requirements:

(August 3, 2009)

A mixing zone is established within which the turbidity standard is waived during actual in-water work. The mixing zone is established to only temporarily allow exceeding the turbidity criteria (such as a few hours or days) and is not authorization to exceed the turbidity standard for the entire duration of the construction. The mixing zone shall not exceed *** 300 *** feet downstream from the construction area.

(April 2, 2018)

All costs to comply with this special provision are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the Contract.

Air Quality

Asbestos Containing Material

Section 1-07.5(4)C is supplemented with the following:

(October 4, 2021)
Asbestos Good Faith Investigation
An asbestos Good Faith Investigation (GFI) has been conducted for this project and it has been determined to a reasonable certainty that no known Asbestos Containing Material (ACM) will be disturbed by the work on this project. The asbestos GFI has been provided as Appendix *** A ***.

U.S. Army Corps of Engineers

Section 1-07.5(5) is supplemented with the following:

(April 2, 2018)
The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the U.S. Army Corps of Engineers. Throughout the work, the Contractor shall comply with the following requirements:

(February 25, 2013)
Temporary structures and dewatering of areas under the jurisdiction of the U.S. Army Corps of Engineers must maintain normal downstream flows and prevent upstream and downstream flooding to the maximum extent practicable.

(August 3, 2009)
Heavy equipment working in wetlands or mudflats must be placed on mats or other measures taken to minimize soil disturbance as approved by the Engineer.

(April 2, 2018)
All costs to comply with this special provision are incidental to the Contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the Contract.

U.S. Fish and Wildlife Service and National Marine Fisheries Service

Section 1-07.5(6) is supplemented with the following:

(April 2, 2018)
The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the U.S. Fish/Wildlife Services and the National Marine Fisheries Service. Throughout the work, the Contractor shall comply with the following requirements:

(April 2, 2018)

The Contractor shall place temporary storage piles of erosive materials outside the 100-year floodplain during the rainy season (October 1 through June 1). Material that will be used within 12 hours of deposition is exempt from this requirement. The Contractor shall employ best management practices to prevent sediment delivery to waterbodies, wetlands, or conveyances that drain to such features.

(April 2, 2018)
The Contractor shall provide concrete truck chute cleanout areas to contain fresh concrete and wash water. The Contractor shall dispose of the waste material at a facility permitted to take such waste.

(April 2, 2018)
The Contractor shall direct temporary lights for night work away from *** Nooksack River Overflow (when not isolated) and Nooksack River main channel ***.

(September 7, 2021)
Galvanizing and zinc coatings shall not be used below the 100 year mean recurrence interval water surface.

(April 2, 2018)
All costs to comply with this special provision are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

Permits and Licenses

Section 1-07.6 is supplemented with the following:

(January 2, 2018)
The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the permit(s) is attached as an appendix 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.

***

NAME OF DOCUMENT	PERMITTING AGENCY	PERMIT REFERENCE NO.
Hydraulic Project Approval	Department of Fish & Wildlife	2026-4-698+01

Section 402 NPDES	Department of Ecology	WAR316073
Section 401 Water Quality Certification	Department of Ecology	NWS-2022-259-DOT
Department of Army Section 404 Nationwide 14	Corps of Engineers Seattle District	NWS-2022-259-DOT

***

Load Limits

Section 1-07.7 is supplemented with the following:

(March 13, 1995)
If the sources of materials provided by the Contractor necessitates hauling over roads other than State Highways, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

Wages

General

Section 1-07.9(1) is supplemented with the following:

(January 6, 2026)
The Federal wage rates incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA20260001.

The State rates incorporated in this contract are applicable to all construction activities associated with this contract.

Apprentices

Section 1-07.9(3) is supplemented with the following:

(October 5, 2026)
Apprentice Utilization
This Contract includes an Apprentice Utilization Requirement. Fifteen percent or more of project Labor Hours shall be performed by Apprentices. Apprentice Utilization will be determined using the L&I online Prevailing Wage Intent & Affidavit (PWIA) system.

Definitions
For the purposes of this specification the following definitions apply:

1. Apprentice is a person enrolled in a State-approved Apprenticeship Training Program.

2. Apprentice Utilization is the Apprentice labor hours expressed as a percentage of the project Labor Hours based on certified payrolls or the

affidavit of wages paid, whichever is least. The percentage is not rounded up.

3. Apprentice Utilization Requirement is the minimum percentage of apprentice labor hours required by the Contract.

4. Good Faith Efforts (GFE) describes the Contractor's efforts to meet the Apprentice Utilization Requirement including but not limited to the specific steps as described elsewhere in this specification.

5. Labor Hours are the total hours performed by all workers receiving an hourly wage who are subject to prevailing wage requirements for Work performed on the Contract as defined by RCW 39.04.310. Labor Hours are determined based on the scope of work performed by the individuals, rather than the title of their occupations in accordance with WAC 296-127.

6. State-approved Apprenticeship Training Program is an apprenticeship training program approved by the Washington State Apprenticeship and Training Council.

Electronic Reporting

The Contractor shall use the PWIA System to submit the "Apprentice Utilization Plan" and GFE documentation. Reporting instructions are available in the application.

Apprentice Utilization Plan

The Contractor shall submit to the Engineer through PWIA no later than the first working day, in accordance with Section 1-08.5, an "Apprentice Utilization Plan" by filling out the Apprentice Utilization Plan form (WSDOT Form 424-005) demonstrating how and when they intend to achieve the Apprentice Utilization Requirement. The Plan shall be in sufficient detail for the Engineer to track the Contractor's progress in meeting the utilization requirements and be updated and resubmitted as the Work progresses, or when ordered by the Engineer.

If the Contractor is unable to demonstrate ability to meet the Apprentice Utilization Requirement in their Apprentice Utilization Plan, they must use the PWIA system to submit GFE documentation for review and comment with their Apprentice Utilization Plan. The Contractor shall actively seek out opportunities to meet the Apprentice Utilization Requirement during the Work.

Contacts

The Contractor may obtain information on State-approved Apprenticeship Training Programs at:

https://secure.lni.wa.gov/arts-public/#/program-search

Compliance

In the event the Contractor is unable to achieve the Apprentice Utilization Requirement, the Contractor shall use the PWIA system to submit GFE documentation for review and approval. If GFE documentation was previously submitted as part of the Apprentice Utilization Plan, it shall be updated and resubmitted. The GFE documentation for Apprentice Utilization based on certified payrolls shall be submitted after Substantial Completion but no later than 30 days

after Physical Completion. After all affidavits of wages paid have been submitted, if the Apprentice Utilization based on the affidavits of wages paid is less than that of the Apprentice Utilization based on certified payrolls, a GFE shall be submitted based on the lower Apprentice Utilization.

If the Contractor fails to submit GFE documentation or if the Engineer does not approve the GFE, the Contractor will be subject to disciplinary actions as allowed under WAC 468-16-180.

Good Faith Efforts

The GFE shall describe in detail why the Contractor is not or was not able to attain the Apprentice Utilization Requirement. The GFE documentation shall include:

1. Documentation of ongoing correspondence for solicitation of Apprentices from a State-approved Apprenticeship Training Program(s). To be considered ongoing, the correspondence shall be not less than once a quarter, beginning at the start of Work and continuing every three months thereafter. The response from the solicited State-approved Apprenticeship Training Program(s) when there is a lack of availability of Apprentices shall be included in the correspondence.

And one or more of the following:

2. Documentation that shows Contract requirements for TERO, Special Training or Disadvantage Business Enterprise requirements affect the ability to obtain Apprentice Labor Hours on the Contract.

3. Documentation demonstrating what efforts the Contractor has taken to require subcontractors to solicit and employ Apprentices. Documentation could be posters placed on site, emphasis in subcontracts about employing Apprentices, letters, memos or other correspondence from Contractor to subcontractor that put an emphasis on employing Apprentices.

4. Documentation of other obstacles the Contractor faced that may demonstrate or solidify a satisfactory explanation of not meeting the Apprenticeship Utilization Requirement.

If an Apprentice graduates during employment on a Contract, they may be counted towards a GFE credit for up to one year after their graduation or until the end of the project (whichever comes first) if they remain continuously employed by the same Contractor. Determination of whether or not Contract requirements were met in good faith will be made by subtracting the hours from the journeyman total reported hours for the project and adding them to the apprentice hour total. If the new utilization percentage meets the Contract requirement, the Contractor will be reported as meeting the requirement in good faith.

Payment

All costs incurred by the Contractor for complying with this specification shall be included in the Contract prices for the Bid items of Work involved.

Requirements for Nondiscrimination

Section 1-07.11 is supplemented with the following:

(May 5, 2025)

Requirement for Affirmative Action to Ensure Equal Employment Opportunity

In accordance with 41 CFR § 60-4.2, the clauses contained in 1-4 below are required to be included in this Contract. Nothing in this contract alters the Contractor's responsibility to comply with all applicable Federal regulations, including but not limited to 41 CFR part 60 as currently existing or later amended.

1. The Contractor's attention is called to the "Equal Opportunity Clause and the Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation set by the Office of Federal Contract Compliance Programs, expressed in percentage terms for the Contractor's aggregate work force in each construction craft and in each trade on all construction work in the covered area, are as follows:

Women - Statewide

Timetable	Goal
Until further notice	6.9%

Minorities - by Standard Metropolitan Statistical Area (SMSA)

Spokane, WA:
SMSA Counties:
Spokane, WA 2.8
WA Spokane.
Non-SMSA Counties 3.0
WA Adams; WA Asotin; WA Columbia; WA Ferry; WA Garfield; WA Lincoln, WA Pend Oreille; WA Stevens; WA Whitman.

Richland, WA
SMSA Counties:
Richland Kennewick, WA 5.4
WA Benton; WA Franklin.
Non-SMSA Counties 3.6
WA Walla Walla.

Yakima, WA:
SMSA Counties:
Yakima, WA 9.7
WA Yakima.
Non-SMSA Counties 7.2
WA Chelan; WA Douglas; WA Grant; WA Kittitas; WA Okanogan.

Seattle, WA:
SMSA Counties:
Seattle Everett, WA 7.2
WA King; WA Snohomish.
Tacoma, WA 6.2
WA Pierce.
Non-SMSA Counties 6.1
WA Clallam; WA Grays Harbor; WA Island; WA Jefferson; WA Kitsap; WA Lewis; WA Mason; WA Pacific; WA San Juan; WA Skagit; WA Thurston; WA Whatcom.

Portland, OR:
SMSA Counties:
Portland, OR-WA 4.5
WA Clark.
Non-SMSA Counties 3.8
WA Cowlitz; WA Klickitat; WA Skamania; WA Wahkiakum.

These goals are applicable to each nonexempt Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, or federally assisted project, contract, or subcontract until further notice. Compliance with these goals and timetables is enforced by the Office of Federal Contract compliance Programs.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, in each construction craft and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of $10,000 or more that are Federally funded, at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed. The notification shall be sent to:

U.S. Department of Labor
Office of Federal Contract Compliance Programs Pacific Region
Attn: Regional Director
San Francisco Federal Building
90 – 7th Street, Suite 18-300

San Francisco, CA 94103
(415) 625-7800 Phone
(415) 625-7799 Fax

4. As used in this Notice, and in the contract resulting from this solicitation, the Covered Area is as designated herein.

In accordance with 41 CFR § 60-4.3, the clauses contained in 1-15 below are required to be included in this Contract. Nothing in this Contract alters the Contractor's responsibility to comply with all applicable Federal regulations, including but not limited to 41 CFR part 60 as currently existing or later amended.

Standard Federal Equal Employment Opportunity Construction Contract Specifications

1. As used in these specifications:

   a. "Covered Area" means the geographical area described in the solicitation from which this contract resulted;

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

   c. "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;

   d. "Minority" includes:

      (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

      (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central American, South American, or other Spanish culture or origin, regardless of race);

      (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

      (4) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification.)

2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or

through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through 7p of this Special Provision. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

    a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunity and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the U.S. Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the

Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through 7p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of the obligations under 7a through 7p of this Special Provision provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensure that the concrete benefits of the program are

reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrate the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspensions, terminations and cancellations of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of this Special Provision, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the government and to keep records. Records shall at least include, for each employee, their name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, the Contractors will not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application

of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Additional assistance for Federal Construction Contractors on contracts administered by Washington State Department of Transportation or by Local Agencies may be found at:

Washington State Dept. of Transportation
Office of Equity and Civil Rights
PO Box 47314
310 Maple Park Ave. SE
Olympia WA
98504-7314
Ph: 360-705-7090
Fax: 360-705-6801
http://www.wsdot.wa.gov/equalopportunity/default.htm

(October 3, 2022)

Federal Small Business Enterprise Participation

The Federal Small Business Enterprise (FSBE) Program is an element of the Disadvantaged Business Enterprise (DBE) in accordance with the requirements of 49 CFR Part 26.39. Failure to comply with the requirements of this Specification may result in sanctions as provided by the Contract.

FSBE Abbreviations and Definitions

Broker – A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract; or, persons/companies who arrange or expedite transactions.

Certified Business Description – Specific descriptions of work the FSBE is certified to perform, as identified in the Certified Firm Directory, under the Vendor Information page.

Certified Firm Directory – A database of all Minority, Women, and Disadvantaged Business Enterprises, including those identified as a FSBE, currently certified by Washington State. The on-line Directory is available to Bidders for their use in identifying and soliciting interest from FSBE firms. The database is located under the Firm Certification section of the Diversity Management and Compliance System web page at: https://omwbe.diversitycompliance.com.

Firms certified by OMWBE as SBE, DBE can be used to fulfill the FSBE mandatory goal on a project.

Commercially Useful Function (CUF) – 49 CFR 26.55(c)(1) defines commercially useful function as: “A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be

responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors."

FSBE – A firm certified by OMWBE as meeting Federal requirements of a small business enterprise. All firms on the OMWBE Certified Firm Directory with the designation of SBE or DBE are FSBEs.

Good Faith Efforts – Efforts to achieve the FSBE Goal or other requirements of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Manufacturer (FSBE) – A FSBE firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract. A FSBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

Reasonable Fee (FSBE) – For purposes of Brokers or service providers a reasonable fee shall not exceed 5% of the total cost of the goods or services brokered.

Regular Dealer (FSBE) – A FSBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a Regular Dealer, the FSBE firm must be an established regular business that engages in as its principal business and in its own name the purchase and sale of the products in question. A Regular Dealer in such items as steel, cement, gravel, stone, and petroleum products need not own, operate or maintain a place of business if it both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by long-term formal lease agreements and not on an ad-hoc basis. Brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions shall not be regarded as Regular Dealers within the meaning of this definition.

FSBE Goal

The Contracting Agency has established a FSBE Goal for this Contract in the amount of: *** Eighteen percent (18%) of the Contract total for FSBE goals. ***

Crediting FSBE Participation

All FSBE subcontractors shall be certified before the subcontract on which they are participating is executed.

FSBE participation is only credited upon payment to the FSBE.

The following are some definitions of what may be counted as FSBE participation.

FSBE Prime Contractor
Only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the FSBE Prime Contractor performs with its own forces and is certified to perform.

FSBE Subcontractor
Only take credit for that portion of the total dollar value of the subcontract that is equal to the distinct, clearly defined portion of the Work that the FSBE performs with its own forces and is certified to perform. The value of work performed by the FSBE includes the cost of supplies and materials purchased by the FSBE and equipment leased by the FSBE, for its work on the contract. Supplies, materials or equipment obtained by a FSBE that are not utilized or incorporated in the contract work by the FSBE will not be eligible for FSBE credit.

The supplies, materials, and equipment purchased or leased from the Contractor or its affiliate, including any Contractor's resources available to FSBE subcontractors at no cost, shall not be credited.

FSBE credit will not be given in instances where the equipment lease includes the operator. The FSBE is expected to operate the equipment used in the performance of its work under the contract with its own forces. Situations where equipment is leased and used by the FSBE, but payment is deducted from the Contractor's payment to the FSBE is not allowed.

When the subcontractor is a FSBE, the following apply:

1. If a FSBE subcontracts a portion of the Work of its contract to another firm, the value of the subcontracted Work may be counted toward the FSBE Goal only if the lower-tier subcontractor is also a FSBE.

2. Work subcontracted to a non-FSBE does not count towards the FSBE Goal nor FSBE participation.

FSBE Subcontract and Lower Tier Subcontract Documents
There must be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the FSBE.

FSBE Service Provider
The value of fees or commissions charged by a FSBE firm behaving in a manner of a Broker, or another service provider for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance specifically required for the performance of the contract will only be credited as FSBE participation, if the fee/commission is determined by the Contracting Agency to be reasonable and the firm has performed a CUF.

Temporary Traffic Control
If the FSBE firm is being utilized in the capacity of only "Flagging", the FSBE firm must provide a Traffic Control Supervisor (TCS) and flagger, which are under

the direct control of the FSBE. The FSBE firm shall also provide all flagging equipment (e.g. paddles, hard hats, and vests).

If the FSBE firm is being utilized in the capacity of "Traffic Control Services", the FSBE firm must provide a TCS, flaggers, and traffic control items (e.g., cones, barrels, signs, etc.) and be in total control of all items in implementing the traffic control for the project.

Trucking

FSBE trucking firm participation may only be credited as FSBE participation for the value of the hauling services, not for the materials being hauled unless the trucking firm is also certified as a supplier of those materials. In situations where the FSBE's work is priced per ton, the value of the hauling service must be calculated separately from the value of the materials in order to determine FSBE credit for hauling

The FSBE trucking firm must own and operate at least one licensed, insured and operational truck on the contract. The truck must be of the type that is necessary to perform the hauling duties required under the contract. The FSBE receives credit for the value of the transportation services it provides on the Contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

The FSBE may lease additional trucks from another FSBE firm. The FSBE who leases additional trucks from another FSBE firm receives credit for the value of the transportation services the lessee FSBE provides on the Contract.

The trucking Work subcontracted to any non-FSBE trucking firm will not receive credit for Work done on the project.

The FSBE may lease trucks from a truck leasing company (recognized truck rental center), but can only receive credit towards FSBE participation if the FSBE uses its own employees as drivers.

FSBE Manufacturer and FSBE Regular Dealer

One hundred percent (100%) of the cost of the manufactured product obtained from a FSBE manufacturer can count as FSBE participation. If the manufacturer is a FSBE, participation may count towards the FSBE Goal.

Sixty percent (60%) of the cost of materials or supplies purchased from a FSBE Regular Dealer may be credited as FSBE Participation. If the role of the FSBE Regular Dealer is determined to be that of a Broker, then FSBE credit shall be limited to the fee or commission it receives for its services. Regular Dealer status and the amount of credit is determined on a Contract-by-Contract basis. If the regular dealer is a FSBE, participation may count towards the FSBE Goal.

FSBE firms proposed to be used as a Regular Dealer must be approved before being used on a project. The WSDOT Approved Regular Dealer list published on WSDOT's Office of Equal Opportunity (OEO) web site must include the specific project for which approval is being requested. For purposes of FSBE Goal participation, the Regular Dealer must submit the Regular Dealer Status

Request form and receive approval prior to providing any equipment or materials or the signing of a purchase order, invoice, or subcontract.

Purchase of materials or supplies from a FSBE which is neither a manufacturer nor a regular dealer, (i.e. Broker) only the fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, can count as FSBE participation provided the fees are not excessive as compared with fees customarily allowed for similar services. Documentation will be required to support the fee/commission charged by the FSBE. The cost of the materials and supplies themselves cannot be counted toward as FSBE participation.

Good Faith Effort Documentation

GFE is evaluated prior to Physical Completion when determining whether the Contractor has satisfied its FSBE Goal.

The Contracting Agency will measure GFE using the guidance in 49 CFR Part 26, Appendix A. The following is a list of the types of actions which may be considered as part of the Contractor's GFE to achieve FSBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

1. Solicited through all reasonable and available means the interest of all certified FSBEs who had the capability to perform the Work of the Contract. The Contractor must have solicited this interest within sufficient time to allow the FSBEs to respond to the solicitation. The Contractor must have determined with certainty that the FSBEs were interested by taking appropriate steps to follow up initial solicitations with potential FSBEs.

2. Selected portions of the Work to be performed by FSBEs in order to increase the likelihood that the FSBE Goal would be achieved. This includes, where appropriate, breaking out contract Work items into economically feasible units to facilitate FSBE participation, even when the Contractor might otherwise prefer to perform these Work items with its own forces.

3. Provided interested FSBEs with adequate information about the Plans, Specifications, and requirements of the Contract in a timely manner to assist them in responding to a solicitation.

    a. Negotiated in good faith with interested FSBEs. It is the Contractor's responsibility to make a portion of the Work available to FSBE subcontractors and suppliers and to select those portions of the Work or material needs consistent with the available FSBE subcontractors and suppliers, so as to facilitate FSBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of FSBEs that were contacted; a description of the information provided regarding the Plans and Specifications for the Work selected for subcontracting; and evidence as to why additional agreements could not be reached for FSBEs to perform the Work.

b. A Contractor using good business judgment would consider a number of factors in negotiating with subcontractors, including FSBE subcontractors, and would take a firm's price and capabilities as well as the FSBE Goal into consideration. The fact that there may be some additional costs involved in finding and using FSBEs is not in itself sufficient reason for a Bidder's failure to meet the FSBE Goal, as long as such costs are reasonable. Also, the ability or desire of a Contractor to perform the Work of a Contract with its own organization does not relieve the Contractor of the responsibility to make Good Faith Efforts. Contractors are not, however, required to accept higher quotes from FSBEs if the price difference was excessive or unreasonable.

4. Not rejecting FSBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The Contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the Contractor's efforts to meet the FSBE Goal.

5. Made efforts to assist interested FSBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

6. Made efforts to assist interested FSBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

7. Effectively used the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of FSBEs.

8. Documentation of GFE must include copies of each FSBE and non-FSBE subcontractor quotes submitted to the Bidder when a non-FSBE subcontractor is selected over a FSBE for Work on the Contract.

Procedures after Execution

Commercially Useful Function (CUF)

The Contractor may only take credit for the payments made for Work performed by a FSBE that is determined to be performing a CUF. Payment must be commensurate with the work actually performed by the FSBE. This applies to all FSBEs performing Work on a project, if the Contractor wants to receive credit for their participation. The Engineer will conduct CUF reviews to ascertain whether FSBEs are performing a CUF. A FSBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The FSBE must be responsible for negotiating price; determining quality and quantity; ordering the material, installing (where applicable); and paying for the material itself. If a FSBE does not perform "all" of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward FSBE Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Contractor is not allowed. Lease

agreements shall be provided prior to the Subcontractor beginning Work. Any use of the Contractor's equipment by a FSBE may not be credited as countable participation.

The FSBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of FSBE participation.

In order for a FSBE traffic control company to be considered to be performing a CUF, the FSBE must be in control of its work inclusive of supervision. The FSBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

The following are some of the factors that the Engineer will use in determining whether a FSBE trucking company is performing a CUF:

- The FSBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on the contract. The owner demonstrates business related knowledge, shows up on site and is determined to be actively running the business.

- The FSBE itself shall own and operate at least one fully licensed, insured, and operational truck used on the Contract. The drivers of the trucks owned and leased by the FSBE must be exclusively employed by the FSBE and reflected on the FSBE's payroll.

- Lease agreements for trucks shall indicate that the FSBE has exclusive use of and control over the truck(s). This does not preclude the leased truck from working for others provided it is with the consent of the FSBE and the lease provides the FSBE absolute priority for use of the leased truck.

- Leased trucks shall display the name and identification number of the FSBE.

Truck Unit Listing Log

In addition to the subcontracting requirements of Section 1-08.1, each FSBE trucking firm shall submit supplemental information consisting of a completed Primary UDBE/DBE/FSBE Truck Unit Listing Log (WSDOT Form 350-077) and all Rental/Lease agreements (if applicable). The supplemental information shall be submitted in an electronic format to the Engineer prior to any trucking services being performed for FSBE credit. Incomplete or incorrect supplemental information will be returned for correction. The corrected Primary Truck Unit Listing Log and any Updated Primary Truck Unit Listing Logs shall be submitted and accepted by the Engineer no later than ten calendar days of utilizing applicable trucks. Failure to submit or update the DBE Truck Unit Listing Log may result in trucks not being credited as FSBE participation.

Each FSBE trucking firm shall complete a Daily Truck Unit Listing Log for each day that the FSBE performs trucking services for FSBE credit. The Daily Truck Unit Listing Log forms shall be submitted by Friday of the week after the Work

was performed by email to the following email address for the region administering the Contract:

Eastern Region - ERRegionOEO@wsdot.wa.gov
North Central Region - NCRegionOEO@wsdot.wa.gov
Northwest Region - NWRegionOEO@wsdot.wa.gov
Olympic Region - ORegionOEO@wsdot.wa.gov
South Central Region - SCRegionOEO@wsdot.wa.gov
Southwest Region - SWRegionOEO@wsdot.wa.gov
Washington State Ferries - FerriesOEO@wsdot.wa.gov

Joint Checking

A joint check is a check between a subcontractor and the Contractor to the supplier of materials/supplies. The check is issued by the Contractor as payer to the subcontractor and the material supplier jointly for items to be incorporated into the project. The FSBE must release the check to the supplier, while the Contractor acts solely as the guarantor.

A joint check agreement must be approved by the Engineer and requested by the FSBE involved using the DBE Joint Check Request Form (WSDOT Form #272-053) prior to its use. The form must accompany the FSBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by the Engineer. To receive FSBE credit for performing a CUF with respect to obtaining materials and supplies, a FSBE must “be responsible for negotiating price, determining quality and quantity, ordering the material, installing and paying for the material itself.” The Contractor shall submit DBE Joint Check Request Form for the Engineer approval prior to using a joint check.

Material costs paid by the Contractor directly to the material supplier are not allowed. If proper procedures are not followed or the Engineer determines that the arrangement results in lack of independence for the FSBE involved, no FSBE credit will be given for the FSBE’s participation as it relates to the material cost.

Prompt Payment

Prompt payment to all subcontractors shall be in accordance with Section 1-08.1. Prompt payment requirements apply to progress payments as well as return of retainage.

Subcontracts

Prior to a FSBE performing Work on the Contract, an executed subcontract between the FSBE and the Contractor shall be submitted to the Engineer. The executed subcontracts shall be submitted by email to the following email address for the region administering the Contract:

Eastern Region – ERRegionOEO@wsdot.wa.gov
North Central Region – NCRegionOEO@wsdot.wa.gov
Northwest Region – NWRegionOEO@wsdot.wa.gov
Olympic Region – ORegionOEO@wsdot.wa.gov

South Central Region – SCRegionOEO@wsdot.wa.gov
Southwest Region – SWRegionOEO@wsdot.wa.gov
Washington State Ferries – FerriesOEO@wsdot.wa.gov

Reporting
The Contractor and all subcontractors/suppliers/service providers that utilize FSBEs to perform work on the project, shall maintain appropriate records that will enable the Engineer to verify FSBE participation throughout the life of the project.

Refer to Section 1-08.1 for additional reporting requirements associated with this contract.

Decertification
When a FSBE is "decertified" from the FSBE program during the course of the Contract, the participation of that FSBE shall continue to count as FSBE participation as long as the subcontract with the FSBE was executed prior to the decertification notice. The Contractor is obligated to substitute when a FSBE does not have an executed subcontract agreement at the time of decertification.

Sanctions
If it is determined that the Contractor's failure to meet all or part of the FSBE Goal is due to the Contractor's inadequate good faith efforts throughout the life of the Contract, including failure to submit timely, required Good Faith Efforts information and documentation, the Contractor may be required to pay FSBE penalty equal to the amount of the unmet Goal, in addition to the sanctions outlined in Section 1-07.11(5).

Payment
Compensation for all costs involved with complying with the conditions of this Specification and any other associated FSBE requirements is included in payment for the associated Contract items of Work, except otherwise provided in the Specifications.

Federal Agency Inspection

Section 1-07.12 is supplemented with the following:

(September 23, 2026)
Required Federal Aid Provisions
The Contract Provisions for Federal Aid Construction Contracts (FHWA 1273) and the amendments thereto supersede any conflicting provisions of the Standard Specifications and are made a part of this Contract; provided, however, that if any of the provisions of FHWA 1273, as amended, are less restrictive than Washington State Law, then the Washington State Law shall prevail.

The Contractor shall insert the FHWA 1273 and amendments in each subcontract, together with the wage rates which are part of the FHWA 1273, as amended. Also, a clause shall be included in each subcontract requiring the subcontractors to insert the FHWA 1273 and amendments thereto in any lower tier subcontracts, together with the wage rates. The Contractor shall also ensure that this section, REQUIRED FEDERAL AID PROVISIONS, is inserted in each subcontract for subcontractors and lower tier

subcontractors. For this purpose, upon request to the Engineer, the Contractor will be provided with extra copies of the FHWA 1273, the amendments thereto, the applicable wage rates, and this Special Provision.

Protection and Restoration of Property

Vegetation Protection and Restoration

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

(August 2, 2010)
Vegetation and soil protection zones for trees shall extend out from the trunk to a distance of 1 foot radius for each inch of trunk diameter at breast height.

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

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

Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

(October 3, 2022)
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:

***
Cascade Natural Gas will install a new gas line prior to construction and abandon their existing gas line within the roadway.

Astound, Comcast, PSE, and Ziply will relocate utilities prior to construction.

The Contractor will temporarily relocate city of Everson water and sewer facilities prior to the bridge construction and install new water and sewer facilities in accordance with the Contract. Construction shall be done in coordination with city of Everson.
***

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 adjusting, relocating, replacing or constructing utilities within the project limits are supplied for the Contractor's use:

***

Astound
Michael Robles
360-393-6969
Michael.Robles@astound.com

Cascade Natural Gas
Chris Bolton
360-607-4172
Chris.Bolton@cngc.com

City of Everson
Dave Schnoover
360-325-2964
Dschoonover@ci.everson.wa.us

Comcast
Alvin Kuntz
425-293-1009
Alvin_Kuntz@comcast.com

Puget Sound Energy
Jane Major
360-791-2748
Jane.Major@pse.com

Ziply Fiber
Barb Robinson
360-770-6594
Barbara.Robinson@ziply.com
***

Prosecution and Progress

Subcontracting

Section 1-08.1 is supplemented with the following:

(September 2, 2025)
Prior to any subcontractor or lower-tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision **Federal Agency Inspection**.

A subcontractor or lower-tier subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet in accordance with Section 1-08.1(3)), and
2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (WSDOT Form 420-004).

The Contractor shall submit a completed Monthly Retainage Report (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress payment until every subcontractor and lower tier subcontractor's retainage has been released. This form shall be submitted to the Engineer by email to the following email address for the region administering the Contract:

Eastern Region – ERRegionOEO@wsdot.wa.gov
North Central Region – NCRegionOEO@wsdot.wa.gov
Northwest Region – NWRegionOEO@wsdot.wa.gov
Olympic Region – ORegionOEO@wsdot.wa.gov
South Central Region – SCRegionOEO@wsdot.wa.gov
Southwest Region – SWRegionOEO@wsdot.wa.gov
Washington State Ferries – FerriesOEO@wsdot.wa.gov

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all subcontractors and lower-tier subcontractors shall be available and open to similar inspection or audit for the same time period.

Subcontractor Approval

The second sentence in the first paragraph of Section 1-08.1(3) is revised to read:

(November 4, 2024)
Each request to subcontract shall be submitted through Unifier, Request to Sublet.

Submittal of Executed Subcontracts

The last sentence of Section 1-08.1(9) is revised to read:

(May 5, 2025)
The executed subcontracts shall be submitted with the Request to Sublet, through Unifier.

Progress Schedule

General Requirements

Type B Progress Schedules

Section 1-08.3(2)B is supplemented with the following:

(November 20, 2023)
In addition to information required in Items 1 through 13, the Progress Schedule shall include the following milestones and/or activities:

*** Girder Fabrication
90-day settlement period ***

Time for Completion

Section 1-08.5 is supplemented with the following:

(March 13, 1995)
This project shall be physically completed within *** 300 *** working days.

Liquidated Damages

Section 1-08.9 is supplemented with the following:

(September 8, 2020)
Liquidated damages in the amount of *** $3,150 *** per working day will be assessed for failure to physically complete the Contract within the physical completion time specified.

(******)
The closure of multiple lanes and a continuous 15-day single lane closure of SR 544 will result in substantial traffic impacts. These closures will cause delays to the traveling public, increase fuel consumption, vehicle operating cost, pollution, and other inconveniences and harm.

Accordingly, the Contractor agrees:

1. To pay $300 liquidated damages for each 15-minute period, prorated to the nearest 5 minutes, that all lanes of SR 544 (MP 7.54 to MP 7.70) in both directions of mile posting are not open by 6:00 AM following an alternating one-way closure with flagging operation.

2. To pay $2,000 liquidated damages for each 15-minute period, prorated to the nearest 5 minutes, that all lanes of SR 544 (MP 7.54 to MP 7.70) in both directions of mile posting are not open by 2:00 PM following an alternating one-way closure with flagging operation.

3. $3,500 liquidated damages for each 15-minute period, prorated to the nearest 5 minutes, that SR 544 (MP 7.54 to MP 7.70) is reduced to one-lane alternating traffic beyond the number of days permitted in the Contract.

4. $8,000 liquidated damages for each additional full roadway closure (24-hour closure) for trucks of SR 544 (MP 7.54 to MP 7.70) in both directions of mile posting beyond the number permitted in the Contract.

5. To authorize the Engineer to deduct these liquidated damages from any money due or coming due the Contractor.

Measurement and Payment

Weighing Equipment

General Requirements for Weighing Equipment

Electronic Delivery Management System (E-Ticketing)

Section 1-09.2(1)A is revised to read as follows:

(January 24, 2024)
An E-Ticketing System (ETS) shall be used for submitting all tickets on this Contract. Tickets shall include the Certification of Compliance for concrete in accordance with Section 6-02.3(5)B.

The Engineer may request paper tickets at any time due to system failures, bad cell service, or lack of reliability due to inaccuracy or inconsistency of the data provided.

The WSDOT Portal shall be used for submitting all HMA tickets on this Contract. For all other tickets, the use of the WSDOT Portal is optional. Information on the WSDOT Portal can be found here:

https://www.haulhub.com/washington-statedot/

WSDOT Portal Requirements
For suppliers with existing systems, the WSDOT Portal provides an Application Programming Interface (API), and HaulHub will assist in setting up this connection. For suppliers without a provider, HaulHub can also provide a no-cost solution to ensure that tickets are sent to the WSDOT Portal.

The Contractor shall conduct a test of each supplier's integration with the WSDOT Portal at least fourteen calendar days prior to shipping material unless otherwise approved by the Engineer. The test must involve at least two calibration e-Tickets from each supplier for each material approved for use on the project. The calibration e-Tickets must accurately reflect that all requirements for the ticket are met. After the Engineer confirms that the calibration e-Tickets have been entered into the WSDOT Portal, void the e-Tickets with the reason "Calibration Testing."

As e-Tickets are generated, they shall be submitted to the WSDOT Portal.

The Contractor shall update the load read-out weighing system and work with HaulHub to update the API as necessary to maintain connection to the WSDOT Portal.

Other e-Ticket System Requirements
When the WSDOT Portal is not used for submitting e-Tickets, no fewer than 30 calendar days prior to delivery or placement activities, the Contractor shall submit a Type 2 Working Drawing to the Engineer detailing all E-Ticketing Systems (ETS) used to provide the required information. It is recognized that multiple systems may be used to accommodate individual Contractors and

Material supplier capabilities. The Working Drawings shall explain how partial loads will be tracked and include contingency plans for lost internet connectivity and/or phone reception.

The Contractor shall provide on-site technical assistance and training during the initial setup to all parties requiring access to the e-ticket information. The Contractor shall provide ETS support as necessary during the Work to ensure effective ongoing utilization.

Payment

Section 1-09.2(6) is supplemented with the following:

(January 24, 2024)
All HMA loads will be rejected that do not have a corresponding e-Ticket on the WSDOT Portal at the time of delivery. No payment will be made for rejected materials.

Scope of Payment

Section 1-09.3 is supplemented with the following:

(August 7, 2017)
Fuel Cost Adjustment

General

The Contracting Agency will make a fuel cost adjustment, either a credit or a payment, for qualifying changes in the index price of on-highway diesel fuel. The adjustment will be applied to partial payments made according to Section 1-09.9.

The adjustment is not a guarantee of full compensation for fuel price changes. Any adjustment provided by this provision shall not obligate the Contracting Agency for any costs due solely to changes in fuel costs beyond the amount adjusted by this provision. The Contracting Agency does not guarantee that fuel will be available at the base fuel cost or monthly fuel cost. No additional adjustment will be made for rates of fuel consumption or actual fuel types that differ from those specified for the purpose of determining the adjustment.

For the purpose of calculating the adjustment, the Base Fuel Cost shall be the *Weekly* fuel price from the ***U.S. Energy Information Administration*** website. The website location and directions are as follows:

- http://www.eia.gov/petroleum/gasdiesel/
- On the web page, click on the ***West Coast less California***, listed under the heading ***U.S On-Highway Diesel Fuel Prices*(dollar per gallon)*** at the lower end of the web page***.***
- In the pull down box labeled ***Period*** pull down ***Weekly.***
- Click on the fuel price history found under the column heading ***View History*** for the line ***Diesel (On-Highway*) *– All Types***.
- On this web page obtain the nearest weekly fuel cost for the Monday occurring three weeks prior to the date that bids are opened. This weekly fuel cost becomes the Base Fuel Cost and is fixed for the duration of the Contract and will be used in calculating all adjustments.

The Monthly Fuel Cost shall be the most recent ***Monthly*** fuel price from the U.S. Energy Information Administration website. The website location and directions are as follows:

- http://www.eia.gov/petroleum/gasdiesel/
- On the web page, click on the ***West Coast less California***, listed under the heading ***U.S On-Highway Diesel Fuel Prices*(dollar per gallon)*** at the lower end of the web page.
- In the pull down box labeled ***Period*** pull down ***Monthly.***
- Click on the fuel price history found under the column heading ***View History*** for the line ***Diesel (On-Highway*) *– All Types***.
- On this web page obtain the most current monthly fuel price.

If the specified index ceases to be available for any reason, the Contracting Agency at its discretion will select and begin using a substitute price source or index to establish the Monthly Fuel Cost.

Measurement

No adjustment will be made if the Monthly Fuel Cost is within 10 percent of the Base Fuel Cost. No adjustment will be made for work performed after the authorized Time for Completion.

If the Monthly Fuel Cost is greater than or equal to 110% of the Base Fuel Cost, then:

Adjustment = (Monthly Fuel Cost – (1.10 x Base Fuel Cost)) x Q

If the Monthly Fuel Cost is less than or equal to 90% of the Base Fuel Cost, then:

Adjustment = (Monthly Fuel Cost – (0.90 x Base Fuel Cost)) x Q

Where Q = Σ ((Fuel Usage Factor for each Eligible Bid Item) x (Quantity paid in the current months progress estimate for each Eligible Bid Item)) for all Eligible Bid Items listed below:

Eligible Bid Item	Fuel Usage Factor
***	
Roadway Excavation Incl. Haul, per cubic yard	0.70 gal/cy
Gravel Borrow Incl. Haul, per ton	0.45 gal/cy
Structure Excavation Class A Incl. Haul, per cubic yard	0.70 gal/cy
Structure Excavation Class B Incl. Haul, per cubic yard	0.70 gal/cy
Channel Excavation Incl. Haul, per cubic yard	0.70 gal/cy
Crushed Surfacing Base Course, per ton	0.70 gal/ton
Planing Bituminous Pavement, per square yard	0.09 gal/sy
HMA Cl. ½ In. PG 58H-22, per ton	0.90 gal/ton
Concrete Class 4000, per cubic yard	1.2 gal/cy
Superstructure ____, lump sum	0.005 gal/dollar
St. Reinf. Bar, per pound	0.004 gal/Lb
***	

Payment

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

"Fuel Cost Adjustment", by calculation.

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.

(April 9, 2026)

Steel Cost Adjustment

The Contractor may elect to participate in the steel cost adjustments for work permanently incorporated into this Contract. Steel cost adjustment is not a guarantee of full compensation for changes to the cost of steel items; not eligible for all items with steel; and any adjustment provided by this provision will not obligate the Contracting Agency for any costs beyond the amount adjusted by this provision.

This Special Provision provides the option to opt-in to steel cost adjustments for eligible Bid items. The Contractor is provided one opportunity to opt-in and there are no future opt-out provisions. The steel cost adjustment requirements of this Special Provision apply for the duration of the Contract.

General

The Contractor may select Bid items from the list below to be included in the steel cost adjustment. The Contractor is not obligated to select any Bid items or to participate in the steel cost adjustment program. The steel cost adjustment will apply only to the Bid items selected by the Contractor.

Prior to Contract execution the Contractor shall submit the Steel Cost Adjustment Opt-In Bid Item List, WSDOT Form 410-031, to the WSDOT Contract Ad and Award Office. The form is to be received at the WSDOT Bid Room, located at the Washington State Department of Transportation, Room A101, 1655 2nd Ave SW, Tumwater WA 98512 or may be submitted by facsimile to the following FAX number, (360) 705-6966. The Steel Cost Adjustment Opt-In Bid Item List shall be signed by an authorized representative of the Contractor. Should the Contractor fail to return this document as required no Bid items will be eligible for steel cost adjustment.

Steel Index Values

The Contracting Agency will use the Bureau of Labor Statistics (BLS) producer price index (PPI) series Id: WPUSISTEEL1 index value for steel cost adjustments.

The Base Steel Materials Index Value (BV) will be the most recent value published on the BLS website on the day of bid opening. This value will be fixed on the day of bid opening even if the BLS lists this as a preliminary value. The Monthly Steel Materials Index Value (MV) will be the final index value published on the BLS website for any month during the Contract.

Measurement

The Contracting Agency has determined the initial cost basis (ICB) of steel to be *** $0.40 ***. This cost basis is reflected in the steel cost adjustment calculations below, is non-negotiable and will be taken as a fixed value for the duration of the Contract.

For each month that steel material is incorporated into the permanent Work of the Contract or paid for as Materials on Hand and the MV is more than 110 percent or less than 90 percent of the BV the Contractor shall provide the Engineer with the following for each eligible Bid item by the end of the following month:

1. The weight of steel material for the month, and

2. Documentation of the weight and shipment to the Contractor of the steel material by bills of lading, invoices, or purchase orders.

Should the Contractor not provide the required documentation as specified the following shall apply:

1. Steel material that has an MV that is more than 110 percent of the BV will not be eligible for a steel cost adjustment.

2. The steel cost adjustment for a Bid item with an MV that is less than 90 percent of the BV will be calculated using a weight of steel determined by the Engineer.

Steel materials will not be eligible for cost adjustments until all requirements of the Contract have been met. Steel added to a Contract as part of a Value Engineering Change Proposal will not be eligible for steel cost adjustment. Steel cost adjustments made in accordance with this Special Provision will not be reflected on payments made to the Contractor until after the index value required for the calculation becomes final. Preliminary index values may be used to establish the BV, but will not be used to establish the MV in calculations.

For each Bid Item selected by the Contractor on the Steel Cost Adjustment Opt-In Bid Item List form a cost adjustment evaluation will be made. A cost adjustment will only be made if the MV for the month the Work associated with the Bid Item is performed differs by more than ten-percent from the BV.

The steel cost adjustment will be determined as follows:

1. If the MV is within ten-percent of the BV, there will be no adjustment.

2. If the MV is more than 110-percent of the BV, then

$$CA = (((MV - BV) \div BV) - 0.10) \times (ICB \times WS)$$

3. If the MV is less than 90-percent of the BV, then

$$CA = (((MV - BV) \div BV) + 0.10) \times (ICB \times WS)$$

Where:

CA = Cost Adjustment, dollars
MV = Monthly Steel Materials Index Value from BLS for the month determined above
BV = Base Steel Materials Index Value taken as the most recent value published on the BLS website on the day of bid opening.
ICB = Initial Cost Basis of steel per pound
WS = Weight of steel (in pounds) eligible for cost adjustment

The following Bid Items are eligible for the steel cost adjustment program for this Project:

***
St. Reinf. Bar for Bridge
St. Reinf. Bar For Scour Cm Sheet Pile Wall Coping
Epoxy-Coated St. Reinf. Bar (Superstructure)
***

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

"Steel Cost Adjustment", by calculation.

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.

Payment For Material On Hand

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

(August 3, 2009)
The Contracting Agency will not pay for material on hand when the invoice cost is less than $2,000. As materials are used in the work, credits equaling the partial payments for them will be taken on future estimates. Each month, no later than the estimate due date, the Contractor shall submit a letter to the Engineer that clearly states: 1) the amount originally paid on the invoice (or other record of production cost) for the items on hand, 2) the dollar amount of the material incorporated into each of the various work items for the month, and 3) the amount that should be retained in material on hand items. If work is performed on the items and the Contractor does not submit a letter, all of the previous material on hand payment will be deducted on the estimate. Partial payment for materials on hand shall not constitute acceptance. Any material will be rejected if found to be faulty even if partial payment for it has been made.

Payments

Retainage

Section 1-09.9(1) content and title is deleted and replaced with the following:

(June 27, 2011)
Vacant

Division 2
Temporary Features

Public Convenience and Safety

Construction Requirements

Construction Under Traffic

Section 2-03.3(1) is supplemented with the following:

(September 14, 2026)
Lane, ramp, shoulder, and roadway closures are only permitted as follows:

***

Shoulder, Lane, Ramp, and Roadway Closures
Shoulder, Lane, Ramp, and Roadway closures are prohibited at all times except as provided in these Special Provisions.

Lane Closures
Unless specified elsewhere in these Special Provisions, lane closures will be permitted as follows:

Daytime/Nightime SR-544 MP (7.54-7.70) Single Lane Closure Alternating Two-Way Traffic
Sunday 7:00 p.m. to Monday 5:00 a.m.
Monday 9:30 a.m. to 2:00 p.m. **OR** 7:00 p.m. to Tuesday 5:00 a.m.
Tuesday 9:30 a.m. to 2:00 p.m. **OR** 7:00 p.m. to Wednesday 5:00 a.m.
Wednesday 9:30 a.m. to 2:00 p.m. **OR** 7:00 p.m. to Thursday 5:00 a.m.
Thursday 9:30 a.m. to 2:00 p.m. **OR** 7:00 p.m. to Friday 5:00 a.m.
Friday 9:30 a.m. to 2:00 p.m.

Two-Continuous 15-Day Single Lane Closures Alternating Two-Way Traffic on SR-544 MP (7.60-7.64) (Closures Shall not be Implemented Consecutively)
***

If the Engineer determines the permitted closure hours adversely affect traffic, the Engineer may adjust the hours accordingly. The Engineer will notify the Contractor in writing of any change in the closure hours. Exceptions to these restrictions are listed below and when applicable take precedence over closures listed above. The Engineer may also consider on a case-by-case basis additional exceptions following a written request by the Contractor.

Lane, ramp, shoulder, and roadway closures are not allowed on any of the following:

1. A holiday,

2. A holiday weekend; holidays that occur on Friday, Saturday, Sunday or Monday are considered a holiday weekend. A holiday weekend includes Saturday, Sunday, and the holiday.

3. After *** 12:00 p.m. *** on the day prior to a holiday or holiday weekend, and

4. Before *** 12:00 p.m. *** on the day after the holiday or holiday weekend.

5. The two-hour period prior to and the two-hour period after the following special events:

*** Ski to Sea (May)
Everson Summer Festival (July) ***

It shall be the Contractor's responsibility to obtain the dates and times of all events.

Traffic Delays

When Automated Flagger Assistance Devices (AFADs) or flaggers are used to control traffic, traffic shall not be stopped for more than *** five *** minutes at any time. All traffic congestion shall be allowed to clear before traffic is delayed again.

If the delay becomes greater than *** fifteen *** minutes, the Contractor shall immediately begin to take action to cease the operations that are causing the delays. If the *** fifteen *** minute delay limit has been exceeded, as determined by the Engineer, the Contractor shall provide to the Engineer, a written proposal to revise their work operations to meet the *** fifteen *** minute limit. This proposal shall be accepted by the Engineer prior to resuming any work requiring traffic control.

There shall be no delay to medical, fire, or other emergency vehicles. The Contractor shall alert all flaggers and personnel of this requirement.

General Restrictions

Construction vehicles using a closed traffic lane shall travel only in the normal direction of traffic flow unless expressly allowed in an accepted traffic control plan. Construction vehicles shall be equipped with flashing or rotating amber lights.

No two consecutive on-ramps, off-ramps, or intersections shall be closed at the same time and only one ramp at an interchange shall be closed, unless specifically shown in the Plans.

Roads or ramps that are designated as part of a detour shall not be closed or restricted during the implementation of that detour, unless specifically shown in the Plans.

Controlled Access

No special access or egress shall be allowed by the Contractor other than normal legal movements or as shown in the Plans.

Contractor's vehicles of 10,000 GVW or greater shall not exit or enter a lane open to public traffic except as follows:

Egress and ingress shall only occur during the hours of allowable lane closures, and:

1. For exiting an open lane of traffic, by decelerating in a lane that is closed during the allowable hours for lane closures.

2. For entering an open lane of traffic, by accelerating in a closed lane during the allowable hours for lane closures.

Traffic control vehicles are excluded from the gross vehicle weight requirement. If placing construction signs will restrict traveled lanes, then the work will be permitted during the hours of allowable lane closures.

(******)

Advance Notification

The Contractor shall notify the Engineer in writing of any traffic impacts related to lane closure, shoulder closure, sidewalk closure, or any combination, five working days in advance of the stated impacts.

The Contractor shall notify the Engineer in writing ten working days in advance of any traffic impacts related to full roadway closure, ramp closure, or both.

The Contractor shall notify the Engineer in writing of any changes to the stated traffic impacts a minimum of 48 hours prior to the traffic impacts.

These notifications do not imply that the closure will be approved.

The Contractor shall submit a detailed schedule which includes all dates and times for traffic control needs for each Roadway, ramp, lane, Shoulder, or sidewalk closure associated with approved Traffic Control Plans to the Engineer for review and approval by 12:00 p.m. (noon) of the Monday three weeks prior to implementing the traffic control Plan. The schedule shall include dates, times, and identification of critical path Work activities that require traffic control. Due to other Work in the area, submittal of the detailed traffic control schedule does not ensure approval of the dates and times of the proposed traffic control schedule. Within 14 calendar days of the submittal, the Engineer will notify the Contractor of approval of all or portions of the traffic control schedule. Any change to the schedule shall be resubmitted to the Engineer and shall restart the review and approval process.

(October 3, 2022)

Public Notification

The Contractor shall furnish and install information signs that provide advance notification of a ramp closure, roadway closure, or both, a minimum of *** five *** working days prior to the closure. Sign locations, messages, letter sizes, and sign sizes are shown in the Plans.

The Contractor shall notify *** Washington State Patrol; local fire, police, emergency services, and the city engineering departments; Whatcom Transit Authority when applicable; other transit companies; and affected school district(s) ***, in writing, a minimum of *** five *** working days prior to each closure. The Contractor shall furnish copies of these notifications to the Engineer.

(September 3, 2024)

If July 4 occurs on a Tuesday, the prior Monday is considered to be part of a holiday weekend. If July 4 occurs on a Thursday, the following Friday is considered to be part of a holiday weekend.

Temporary Traffic Control

(******)

Description

Section 2-04.1 is supplemented with the following:

Pedestrian Shuttle Service

During the construction of the temporary bypasses and new bridge, when both directions are completely closed to pedestrians and bicyclists, the Contractor shall provide shuttle service including vehicle(s), driver(s), insurance, and fuel for transporting pedestrians and bicyclists around the construction site. The Contractor shall also provide signage guiding pedestrians and bicyclists to the shuttle locations.

Construction Requirements

(******)

Pedestrian Shuttle Service

The shuttle shall be an Americans with Disabilities Act (ADA) accessible vehicle capable of simultaneously transporting a minimum of four passengers and two bicycles. Pedestrians and bicyclists shall not be delayed by more than thirty minutes.

The Contractor shall submit Type 1 Working Drawings detailing the pedestrian traffic control and shall include, at a minimum, the following:

1. Locations of pedestrian and bicycle shuttle pickup and drop-off.

2. Signage informing pedestrians and bicyclists of the sidewalk closures on the SR 544 Bridge and directing them towards the shuttle locations.

Traffic Control Management

Section 2-04.3(1) is supplemented with the following:

(September 2, 2025)
Work Zone Safety Contingency
Enhancements to improve the effectiveness of the accepted traffic control plans to increase the safety of the work zones shall be discussed on a weekly basis between the Contractor and the Contracting Agency. Enhancements shall be mutually agreed upon by the Contractor and Engineer prior to performing any Work to implement the enhancement.

Enhancements do not include the use of Uniformed Police Officers or WSP, address changes to the allowed work hour restrictions, or changes to the staging plans in the Contract (if applicable). If allowed by the Engineer, these items will be addressed in accordance with Section 1-04.4.

The Contractor shall be solely responsible for submitting any traffic control plan revision to implement the enhancement in accordance with Section 2-04.3(2).

(March 9, 2026)
The Traffic Control Supervisor shall be certified by one of the following:

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

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

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

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

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

Trafficorp
5077 N Bldg Center Drive
Coeur d'Alene, ID 83815
(208) 665-4683
https://trafficorp.com/contact-us/

US Safety Alliance
(904) 705-5660
https://www.ussafetyalliance.com

Traffic Safety Drums

Section 2-04.3(6)E is revised to read:

(NWR December 31, 2019)
Where shown on an approved Traffic Control Plan, or where ordered by the Engineer, the Contractor shall provide, install, and maintain traffic safety drums.

The Contractor shall provide traffic safety drums with either wide angle prismatic retroreflective sheeting as specified in this Special Provision or with

Type C steady-burning lights and Type III or Type IV reflective sheeting as described in Section 9-28.12. All traffic safety drums provided by the Contractor shall be of the same configuration and shall be in accordance with Section 9-35.7.

Used drums may be utilized, provided all drums used on the project are of the same configuration and the devices conform to Section 2-04.3(3).

The drums shall be designed to resist overturning by means of a weighted lower unit that shall separate from the drum when impacted by a vehicle.

Drums shall be regularly maintained to ensure that they are clean and that the drum and reflective material are in good condition. If the Engineer determines that a drum has been damaged beyond usefulness, or provides inadequate reflectivity, a replacement drum shall be furnished by the Contractor at no cost to the Contracting Agency.

When the Engineer determines that the drums are no longer required, they shall be removed from the project and shall remain the property of the Contractor.

Wide Angle Prismatic Retroreflective Sheeting

Traffic safety drums with prismatic retroreflective sheeting shall be orange traffic safety drums with two white and two fluorescent orange 6-inch wide bands of wide angle prismatic retroreflective sheeting as specified below.

The reflective sheeting shall have a smooth surface with a distinctive interlocking diamond seal pattern visible from the face. The sheeting shall be pre-coated with a pressure sensitive adhesive backing protected by a removable liner.

Test Methods

Conditions: All test panels shall be maintained at 73 degrees Fahrenheit (plus or minus 3 degrees F) and 50 percent relative humidity (plus or minus 5 percent) for 24 hours prior to initial or subsequent testing.

Test Panels: When tests are to be performed using test panels, the retroreflective material shall be applied on smooth aluminum cut from ASTM B209 Alloy 5052-H36.

Physical Requirements

The wide angle prismatic retroreflective sheeting shall meet the following physical requirements:

Color

The color shall be in conformance to color requirements of Table I.

Table I - Color specification limits for new sheeting (daytime)

Color	Chromaticity Coordinate 1		Chromaticity Coordinate 2		Chromaticity Coordinate 3		Chromaticity Coordinate 4		Total Luminance Factor Limit, YT	
	x	y	x	y	x	y	x	y	min.	max.

White	.305	.305	.355	.355	.335	.375	.285	.325	40	-
Fluorescent Orange	.506	.404	.562	.350	.645	.355	.507	.429	30	-

Fluorescence

The fluorescence shall be in conformance to fluorescence luminance factor requirements of Table II.

Table II – Fluorescence Luminance Factor Limit

Sheeting Type	Fluorescence Luminance Factor Limit, YF Min.
Fluorescent Orange	15

Conformance to color and fluorescence requirements of Table I and II shall be determined instrumentally on sheeting applied to aluminum test panels, using a 2-monochromator spectrophotometer employing annular 45/0 (or equivalent 0/45) illuminating and viewing geometry. The total chromaticity coordinates and total luminance factor shall be calculated from the total spectral radiance factors computed for CIE Standard Illuminant D65 in accordance with ASTM E308 for the CIE 1931 2 degree Standard Colorimetric Observer. The measurement shall be made on a Labsphere BFC-450 Bispectral Fluorescence Colorimeter or equivalent.

Coefficient of Retroreflection, R_A

The coefficients of retroreflection shall not be less than the minimum values specified in Table III according to the sheeting type. Testing shall be in accordance with ASTM E810. The coefficients of retroreflection shall be specified in average candelas per foot-candle, per square foot of material.

Table III – Minimum Coefficient of Retroreflection RA (Candelas per foot-candle per square foot)

Observation Angles (degrees)	Entrance Angles (degrees)		
	-4	30	45
	White		
0.10	93	56	17
0.20	51	28	12
0.50	19	9	5
1.00	1	1	1
	Fluorescent Orange		
0.10	35	19	5
0.20	19	11	4
0.50	7	5	3
1.00	1	1	1

Gloss

The retroreflective sheeting shall have an 85-degree specular gloss of not less than 50 when tested in accordance with ASTM D523.

Flexibility

The retroreflective sheeting with the liner removed and conditioned as in the test method described below shall be sufficiently flexible to show no

cracking when slowly bent, in one second's time, around a 1/8-inch mandrel, with the adhesive contacting the mandrel, at test conditions. Talcum powder shall be spread on the adhesive to prevent sticking to the mandrel.

Adhesive

Protective liner attached to the adhesive shall be removable by peeling without soaking in water or other solutions and without breaking, tearing, or removing any adhesive from the backing. Protective liner shall be easily removed following accelerated storage for 4 hours at 158 degrees Fahrenheit under a weight of 2.5 pounds per square inch. The adhesive backing of the retroreflective sheeting shall produce a bond to support at 1.75-pound weight for 5 minutes without the bond peeling for a distance of more than 2 inches when applied to a test panel prepared in accordance with this Special Provision. Apply 4 inches of a 1-inch by 6-inch specimen to a test panel. Condition and then position the panel face-down horizontally, suspend the weight from the free end of the sample, and allow it to hang free an angle of 90 degrees to the panel surface for 5 minutes.

Impact Resistance

Retroreflective sheeting shall be applied to a test panel of aluminum alloy 6061-T6, 0.04 inch by 3 inches by 5 inches according to the sheeting manufacturer's recommendations. The face of the test panel shall be subjected to an impact of 100 inch-pounds using a weight with a 5/8 inch diameter rounded tip dropped from a height necessary to generate an impact of 100 inch-pounds, at test temperatures of both 32 degrees Fahrenheit and 72 degrees Fahrenheit. The test panel shall show no cracking outside the impact area post testing.

Resistance to Accelerated Outdoor Weathering

The retroreflective surface of the sheeting shall undergo 1 year of unprotected outdoor exposure while facing the equator and inclined 45 degrees from the vertical. Following exposure, the sheeting shall be washed in a 5 percent HCL solution for 45 seconds, rinsed thoroughly with clean water, and blotted with a soft clean cloth. After cleaning, the coefficient of retroflection shall not be less than 50 percent of the values in Table III when measured according to ASTM E810. The color shall conform to the chromaticity coordinates of Table I, and the minimum fluorescence luminance factor Y_F shall not be less than 10. The sample shall:

- Show no appreciable evidence of cracking, scaling, pitting, blistering, edge lifting or curling, or more than 1/32-inch shrinkage or expansion.
- When more than one panel of a color is measured, the coefficient of retroreflection shall be the average of all determinations.

Optical Stability

Three pieces of new retroreflective sheeting applied to test panels shall each first have their photometric properties characterized by measuring the coefficients of retroreflection at all test geometries shown in Table III.

These panels shall then be exposed in an air circulating oven at 160 degrees Fahrenheit (plus or minus 5 degrees) for a period of 24 hours. These panels will again be characterized for photometric properties by measuring the coefficients of retroreflection according to the requirements of this Special Provision at all test geometries measured before exposure. The coefficients of retroreflection measured after exposure shall be between 80 percent and 120 percent of the values shown in Table III.

Resistance to Corrosion
The retroreflective sheeting applied to a test panel shall show no loss of adhesion, appreciable discoloration or corrosion, and after cleaning shall retain a minimum of 80 percent of the specification minimum when measured at 0.2 degrees observation, -4 degrees entrance angle after 1,000 hours exposure to a 5 percent concentration sat spray at 35 degrees when tested in accordance with ASTM B117.

Payment

(******)
Section 2-04.5 is supplemented with the following:

"Pedestrian Shuttle Service", lump sum.
The lump sum contract price for Pedestrian Shuttle Service shall be full payment for performing all work as specified, including submitting Type 1 Working Drawings, providing and maintaining the shuttle vehicle(s), operating the shuttle vehicle(s) (labor included), insurance, fuel, and signage associated with the Pedestrian Shuttle Service. The lump sum is based upon the estimation that the pedestrian route closure(s) have a total duration of thirteen (13) weeks.

Reinstating Unit Items With Lump Sum Traffic Control

Section 2-04.5(3) is supplemented with the following:

(November 2, 2022)
"Work Zone Safety Contingency", by force account.

All costs as authorized by the Engineer will be paid for by force account as specified in Section 1-09.6.

For purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount for the item "Work Zone Safety Contingency" in the Proposal to become a part of the Contractor's total bid.

The Engineer may choose to use existing bid items for the implementation of the agreed upon enhancement.

Division 3
Earthwork

Clearing, Grubbing, and Roadside Cleanup

Construction Requirements

Section 3-01.3 is supplemented with the following:

(NWR September 12, 2019)
The Contractor shall protect the root systems of the existing vegetation designated to be saved during clearing and grubbing activities. The Contractor shall conduct operations so vehicles and equipment do not operate, haul, park, or perform other activity within the drip line of vegetation designated to be saved.

Clearing

Item number 1 of Section 3-01.3(1) is revised to read:

(April 2, 2018)
1. Trees identified for removal shall be felled into the Contracting Agency right of way or areas that will be cleared of vegetation.

Payment

Section 3-01.5 is supplemented with the following:

(NWR September 12, 2019)
"Force Account Roadside Restoration", by force account as provided in Section 1-09.6.

To provide a common Proposal for Bidders, the Contracting Agency has entered an amount for the item "Force Account Roadside Restoration" to become a part of the total Bid by the Contractor.

Removal of Structures and Obstructions

Description

Section 3-02.1 is supplemented with the following:

(NWR December 31, 2019)
The Contractor shall remove the following as part of the lump sum item "Removal of Structures and Obstructions":

***

Removing Conc. Inlet:

Stationing:	Quantity:
E 401+00.0 (13.0' LT)	1 EA.
E 404+57.2 (13.1' LT)	1 EA.
E 404+58.6 (25.6' RT)	1 EA.

Removing Conc. Barrier

Stationing:	Quantity:
E 401+75.2 (19.3' RT) TO E 404+89.9 (14.9' RT)	316 L.F.
E 402+40.4 (32.1' LT) TO E 404+89.3 (20.9' RT)	250 L.F.

Removing Chain Link Fence

Stationing:	Quantity:
E 402+17.7 (36.0' RT) TO E 404+90.8 (25.7' LT)	314 L.F.

Removing Chain Link Fence Gate

Stationing:	Quantity:
E 402+17.7 (36.0' RT)	1 EA.

Removing 18" Conc. Pipe

Stationing:	Quantity:
E 403+01.9 (69.8' LT)	21 L.F.

Removing Conc. Bollards

Stationing:	Quantity:
E 402+18.1 (94.0' LT)	3 EA.

Removing Wooden Fence

Stationing:	Quantity:
E 402+51.8 (143.4' LT)	12 L.F.

Removing Traffic Sign and Post

Stationing:	Quantity:
E 398+66.0 (24.9’ RT)	1 EA.
E 399+38.5 (24.5' LT)	1 EA.
E 403+63.3 (6.5’ RT)	1 EA.
E 404+67.8 (22.0’ LT)	1 EA.

***

Construction Requirements

Section 3-02.3 is supplemented with the following:

(NWR December 31, 2019)

***

Removing Conc. Inlet

The Contractor shall remove concrete inlets designated in the Plans for removal. All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

Removing Conc. Barrier

The Contractor shall carefully remove concrete barrier designated in the Plans for removal. The removed concrete barrier may be reused for temporary maintenance of traffic if it meets the type as identified in the Plans. All materials permanently removed after use shall become the property of the Contractor and shall be disposed of outside the project limits.

Removing Chain Link Fence

The Contractor shall remove chain link fence and posts designated in the Plans for removal entirely. No breaking or cutting of the posts at the ground surface will be permitted.

The Contractor shall backfill the voids created by post removal with the same type of material surrounding the void. Backfilling and compaction shall be in accordance with

Section 2-09.3(1)E. All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

Removing Chain Link Fence Gate

The Contractor shall remove chain link fence gate and posts designated in the Plans for removal entirely. No breaking or cutting of the posts at the ground surface will be permitted.

The Contractor shall backfill the voids created by post removal with the same type of material surrounding the void. Backfilling and compaction shall be in accordance with Section 2-09.3(1)E. All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

Removing 18" Conc. Pipe

The Contractor shall remove concrete pipe designated in the Plans for removal. All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

Removing Conc. Bollards

The Contractor shall carefully remove concrete bollards designated in the Plans as needed for construction. No breaking or cutting of the posts at the ground surface will be permitted.

The Contractor shall reinstall the concrete bollards at its original location or replace it, if damaged, at the Contractor expense.

Removing Wooden Fence

The Contractor shall carefully remove wooden fence and posts designated in the Plans as needed for construction. No breaking or cutting of the posts at the ground surface will be permitted.

The Contractor shall reinstall the wooden fence at its original location or replace it, if damaged, at the Contractor expense.

Removing Traffic Sign and Post

The Contractor shall remove traffic sign and posts at the locations shown in the Plans or at other locations as determined by the Engineer. All traffic signs and posts to be removed shall be completely removed and disposed of outside the project limits. No close cutting of posts will be permitted. Any voids created by the traffic sign post removal shall be backfilled with a granular material and compacted.

***

(October 4, 2021)

Removal and Disposal of Asbestos Material

In the event suspected Asbestos Containing Material (ACM) is encountered, the Contractor shall immediately notify the Engineer and the provisions of Section 1-04.7 shall apply. Prior to commencing asbestos related work, the Contractor shall obtain all permits from and provide notification to, the Washington State Department of Labor and Industries, the Washington State Department of Ecology, the local clean air agency, and other permitting and regulatory agencies with jurisdiction over the work involving asbestos as the laws, rules, and regulations require.

The ACM shall only be disturbed under the supervision of a Washington State Certified Asbestos Supervisor (CAS). The CAS shall be certified in accordance with WAC 295-65-012.

The CAS shall supervise the asbestos removal and ensure that the handling and removal of asbestos is accomplished by certified asbestos workers and in accordance with Washington State Department of Labor and Industries standards. The Contractor shall ensure that the removal and disposal of asbestos meets the requirements of EPA regulation 40 CFR Part 61, local health department regulations, and all other applicable regulations.

No asbestos is expected to be encountered. However, if the Contractor believes they have encountered asbestos, they shall immediately notify the Engineer in accordance with Section 1-04.7.

Removal of Bridges, Box Culverts, and Other Drainage Structures

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

(June 26, 2000)
The Contractor shall remove the following portions of Bridge *** 544/10 ***, as shown in the Plans:

***
At the south end of Bridge No. 544/10, within the limits shown on the Plans:

Portion of the existing bridge sidewalk (96 S.F.)
Portion of the existing bridge approach slab sidewalk (150 S.F.)
Bridge BP rail (16 L.F.)
Associated pedestrian barrier on the bridge and bridge approach slab (41 L.F.)
Existing bridge approach slab (976 S.F.)

The removed BP rail and street sign shall be salvaged, handled, and stored in a manner acceptable to the Engineer during the period between removal and reinstallation.
***

(January 2, 2018)
Requirements for Closing Bridge to Traffic Prior to Beginning Removal
The Contractor shall not close the existing bridge to traffic, and shall not begin bridge removal operations, until the following conditions are met:

1. The Contractor’s bridge demolition plan Working Drawing submittal has been processed and all comments from the Engineer have been addressed.

2. The Contractor has received the Engineer's acceptance of all shop drawings and materials submittals for materials required for the work to be executed during the closure.

3. The Contractor has submitted a Type 1 Working Drawing consisting of a report on the status of material delivery. The report shall specify the materials already available at the site, the materials yet to arrive at the site, and the scheduled delivery dates of the materials yet to arrive at the site, with written verification from the supplier or copies of confirmed purchase orders indicating the delivery dates of the materials yet to arrive at the site.

4. The Contractor shall provide an updated progress schedule in accordance with Section 1-08.3 confirming that the scheduled delivery of materials will meet the schedule to complete the work within the allowed time. The Contractor shall supplement the progress schedule with a written narrative describing the assumed production rates and planned resource allocations that support the bridge construction activity durations provided in the progress schedule.

5. The Contractor has received the Engineer's concurrence to proceed.

(******)

Equipment for Removing Portions of Existing Bridge Sidewalk

Care shall be taken to limit damage to existing concrete and Structure to remain. Prior to removal of concrete identified for demolition or removal, a saw cut shall be made into the surface of the concrete at the perimeter of the removal limits. The Contractor shall remove the portions of existing bridge sidewalk and associated traffic barrier specified for removal using the following power-driven tools:

1. Jack hammers, restricted to 30-pound class and below.

2. Chipping hammers, restricted to 15-pound class and below.

3. Saw cutting equipment.

No other power driven equipment shall be used to remove the portions of existing concrete specified for removal where existing steel reinforcement is specified to be saved. The power driven tools shall be operated at angles less than 45 degrees as measured from the surface of the concrete to the tool.

(******)

Removing Existing Bridge Approach Slab Bridge No. 544/10

The Contractor shall remove the existing bridge approach slabs, associated bridge approach slab sidewalk and expansion joint gland at the south end of Bridge No. 544/10. The Contractor shall remove existing subgrade as necessary to accommodate new bridge approach slab and pavement seat construction.

The Contractor's removal operation shall not damage the existing pavement seats specified to remain (other than any concrete edge corner grinding necessary to leave a 1-inch chamfer. All damage to the structure elements specified to remain due to the Contractor's operations shall be repaired in accordance with Section 1-07.13. Pre-existing pavement seat spalls shall be repaired to provide a plane bearing surface with an epoxy grout/mortar/concrete conforming to Section 9-26.3.

Demolished reinforced concrete, subgrade, and other debris removed from the bridge approach slab location shall be contained, collected, and disposed of in accordance with Sections 3-02.3 and 3-03.3(7).

(******)
Removing Portion of Existing Steel Arch Culvert
The Contractor shall remove portions of the existing Steel Arch Culvert structure to accommodate construction of the temporary bypass, while keeping the Roadway open to traffic.

Temporary shoring shall be used, as needed, to maintain the Roadway prior to removal.

Any removed material shall remain the property of the Contractor.

(******)
Removing Existing Steel Arch Culvert
The Contractor shall remove the existing Steel Arch Culvert structure in its entirety after the temporary bypass is constructed and operational to traffic.

Any removed material will become the property of the Contractor and shall be removed from the project.

Bridge and Structure Removal

Bridge Demolition Plan Submittal

Section 3-02.3(2)A1 is supplemented with the following:

(******)
The demolition plan shall show how the bridge deck surface underneath the demolition area will be preserved from damage during operations.

A repair procedure shall be submitted as a Type 2 Working Drawing.

The demolition plan shall show how live traffic will be protected from debris throughout all Contractor's operations.

Removal of Pavement, Sidewalks, Curbs, and Gutters

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

(September 8, 1997)
The approximate thickness of the *** sidewalk *** pavement is *** 6.75 in ***.

Vacant

Section 3-02.4 is re-titled to **Measurement** and supplemented with the following:

(December 4, 2006)
Hazardous material excavation including haul will be measured by the cubic yard. All excavated material will be measured in the position it occupied before the excavation was

performed. An original ground measurement will be taken using cross-section or digital terrain modeling survey techniques. The original ground will be compared with a survey of the excavation area taken after the work is completed.

(October 25, 1999)
Sidewalk removal will be measured by the square yard.

Payment

Section 3-02.5 is revised to read:

(August 7, 2017)
Payment will be made for the following bid item when it is included in the proposal.

All costs for the removal of structures and obstructions shall be included in *** Removing Cement Conc. Sidewalk for the sidewalk on grade located south of the bridge approach slab at Pier 1 ***.

(November 3, 1999)
"Removing *** Cement Conc. *** Sidewalk", per square yard.

(******)
All costs in connection with the removal and disposal of the existing bridge sidewalk, associated traffic barrier and the removal, handling and storage of the BP rail at the south end of Bridge No. 544/10 shall be included in the lump sum Contract price for "Removing Portion of Existing Bridge No. 544/10".

(******)
"Removing Portion of Existing Structure Steel Arch Culvert", lump sum.

All costs in connection with removal and disposal of portions of the existing Steel Arch Culvert structure to accommodate construction of the temporary bypass, including temporary shoring, shall be included in the lump sum Contract price for "Removing Portion of Existing Structure Steel Arch Culvert".

(******)
"Removing Existing Structure Steel Arch Culvert", lump sum.

All costs in connection with removal and disposal of the existing Steel Arch Culvert structure after the temporary bypass is constructed and operational to traffic shall be included in the lump sum Contract price for "Removing Existing Structure Steel Arch Culvert".

Section 3-02.5 is supplemented with the following:

(NWR December 31, 2019)
The lump sum Contract price for "Removal of Structures and Obstructions" shall be full payment for performing the Work as specified, including furnishing the backfill material, backfilling, and compacting the voids created from culvert, pipe, drainage structure, fence, and monument cover and riser section removals; transporting to and stacking the concrete barrier and connecting pins, impact attenuator, and guardrail items at the

Maintenance Facilities; removing/relocating the mailbox; and all other removals, as specified.

(December 4, 2006)
"Hazardous Material Handling And Disposal", by force account as provided in Section 1-09.6.

All costs associated with storing stockpiled hazardous waste and contaminated soils, collecting, handling and storing contaminated water, loading the stockpiled material into the hauling conveyance for transport to the disposal site, and transporting and disposing of hazardous or contaminated materials at an approved facility will be paid by force account under the item "Hazardous Material Handling And Disposal".

To provide a common basis for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the Contractor's total bid.

"Hazardous Material Excavation Incl. Haul", per cubic yard.
The unit contract price for "Hazardous Material Excavation Incl. Haul" shall be full pay for all costs associated with excavating the material designated to be removed, hauling it to the stockpile location, and stockpiling the excavated material.

Roadway Excavation and Embankment

Construction Requirements

(******)
Earthwork

Description

This Work includes earthwork associated with constructing roadways, temporary roadways, embankment fill, embankment compaction, excavation for scour protection, backfilling for scour protection, channel grading, and reconstructing the SR 544 mainline roadway to the top of the subgrade.

This Work also includes removing and disposing of material used to construct temporary roadways, the existing drainage structure, pumping or draining excavated areas, protecting excavated slopes and materials from erosion, furnishing, placing and compacting backfill.

Materials

Materials shall meet the following requirements:

Gravel Backfill for Pipe Zone Bedding	9-03.12(3)
Gravel Borrow Incl. Haul	9-03.14(1)
Common Borrow Incl. Haul	9-03.14(3)

Construction Requirements

Earthwork construction includes the excavation for Roadways, excavation for bridge structure, construction of embankments, construction and removal of temporary bypass roadways, excavation for scour protection, backfilling for scour protection, channel grading, utility and storm drainage excavation and backfilling. Earthwork shall meet the construction requirements

for Roadway Excavation, Channel Excavation, Ditch Excavation, Embankment Compaction, and Borrow as specified in Section 3-03.

Earthwork shall also meet the construction requirements for Structure Excavation Class A and B, Shoring or Extra Excavation Class B, and backfilling of Structures as specified in Section 3-07 and backfilling for pipes as specified in Section 7-08.3.

Summary of Quantities

The lump sum item "Earthwork" contains the following approximate quantities of materials and work:

SR 544 Mainline (Sta. E 397+96.52 to Sta. E 408+00.00)

E-Line (Mainline)	Quantity	Sheet Ref.
Roadway Excavation Incl. Haul	536 C.Y.	(RP1)
Structure Excavation Class A Incl. Haul	759 C.Y.	(Bridge Plans)
Gravel Borrow Incl. Haul	32 Ton	(RP1)
Embankment Compaction	20 C.Y.	(RP1)
Structure Excavation Class B Incl. Haul	98 C.Y.	(DP2)
Structure Excavation Class B Incl. Haul	254 C.Y.	(Water & Sewer)
Shoring or Extra Excavation Class B	236 S.F.	(Sewer)
Gravel Backfill for Pipe Zone Bedding	67 C.Y.	(DP2)
Gravel Backfill for Pipe Zone Bedding	49 C.Y.	(Water & Sewer)

Temporary Bypass (Sta. TB 100+00.00 to Sta. TB 108+73.64)

TB-Line (Temporary Bypass)	Quantity	Sheet Ref.
Roadway Excavation Incl. Haul	176 C.Y.	(TBP1)
Gravel Borrow Incl. Haul	1,514 Ton	(TBP1)
Embankment Compaction	945 C.Y.	(TBP1)
Structure Excavation Class B Incl. Haul	17 C.Y.	(DP1)
Shoring or Extra Excavation Class B	733 S.F.	(Water & Sewer)
Gravel Backfill for Pipe Zone Bedding	35 C.Y.	(DP1)
Gravel Backfill for Pipe Zone Bedding	214 C.Y.	(Water & Sewer)
Roadway Excavation Incl. Haul (Removal)	945 C.Y.	(TBP1)
Gravel Borrow Incl. Haul (Removal)	284 Ton	(TBP1)
Embankment Compaction (Removal)	176 C.Y.	(TBP1)

Temporary Pedestrian Bypass (Sta. PB 0+52.90 to Sta. PB 2+70.40)

PB-Line (Temporary Pedestrian Bypass)	Quantity	Sheet Ref.
Roadway Excavation Incl. Haul	5 C.Y.	(TPBP1)
Gravel Borrow Incl. Haul	120 Ton	(TPBP1)
Embankment Compaction	74 C.Y.	(TPBP1)
Roadway Excavation Incl. Haul (Removal)	74 C.Y.	(TPBP1)
Gravel Borrow Incl. Haul (Removal)	10 Ton	(TPBP1)
Embankment Compaction (Removal)	5 C.Y.	(TPBP1)

Overflow Channel (Sta. O 97+89.71 to Sta. O 101+20.00)

O-Line (Overflow Channel)	Quantity	Sheet Ref.
Channel Excavation Incl. Haul	7,090 C.Y.	(OCP1; OCWP)

Common Borrow	53 C.Y.	(SPP1, LD4)
Embankment Compaction	440 C.Y.	(OC2)
Structure Excavation Class B Incl. Haul	16 C.Y.	(DP3)
Gravel Backfill for Pipe Zone Bedding	8 C.Y.	(DP3)

The quantities listed are only for the convenience of the Contractor in determining the volume of Work involved and are not guaranteed to be accurate. Quantities may vary depending on the Contractor's Work methods, order of Work, suitability of excavated materials, and structure type and dimensions. The prospective bidders shall verify these quantities before submitting a bid. No adjustments other than for approved changes will be made in the lump sum Contract price for "Earthwork" even though the actual quantities required may deviate from those listed.

Payment

Payment will be made in accordance with Section 1-04.1 for the following Bid items when included in the Proposal:

"Earthwork" lump sum.

The lump sum Contract price for "Earthwork" shall be full payment to perform the Work as specified.

Structure Excavation

Construction Requirements

Construction Requirements, Structure Excavation, Class A

Excavation Using Open Pits – Extra Excavation

Section 3-07.3(3)B is supplemented with the following:

(September 2, 2025)
Extra excavation and open pit excavation, as defined in this section, will not be allowed at the following location(s):

*** Areas that would result in work beyond the Clearing and Grubbing limits as shown in the Plans. ***

Shoring for the excavation sites specified above shall be Structural Shoring in accordance with Section 3-07.3(3)D. The Contractor shall submit Type 2E Working Drawings consisting of shoring plans in accordance with Section 3-07.3(3)D.

Shoring and Cofferdams

Section 3-07.3(3)D is supplemented with the following:

(March 13, 1995)

The Contractor shall protect the existing pavement from damage due to the Contractor's operations and shall shore all excavation adjacent to the existing pavement.

(******)
The scour countermeasure sheet pile wall shall be constructed in accordance with this section, these Special Provisions, and the Contract Plans.

The scour countermeasure sheet pile wall shall be a permanent watertight enclosure and sealed at the bottom in accordance with the Contract Plans. Walers shall remain in place and shall be considered permanent to the scour countermeasure sheet pile wall system and shall not be removed.

The scour countermeasure sheet piles shall be ASTM A572 grade 60. Each sheet pile shall be designed for 0.04 inches total section loss in 75 years.

The Contractor shall submit Type 3E Working Drawings for the scour countermeasure sheet pile wall, waler beams and braces. The design calculations shall demonstrate that braces and waler beams provide the required stability to the sheet piles during construction and in the permanent final condition.

Pre-drilling or other methods may be necessary to install sheet piles due to isolated subsurface obstructions. See the Geotechnical Report for additional information on obstructions. If the Contractor determines that pre-drilling or other methods is necessary, the Contractor shall submit in writing the additional means and methods. If the Engineer determines that additional means and methods are necessary beyond the Work bid, the Contractor shall proceed based on force account.

Measurement

The subsection **Lower Limits** of Section 3-07.4 is supplemented with the following:

(January 4, 2010)
Under girders, at end pier embankments, the lower limit will follow a line parallel to the bottom of the girders and three feet below them.

(******)
The scour countermeasure sheet pile wall contains the following approximate quantities of materials and work:

Scour Countermeasure Sheet Pile Wall	30,148	SF.

The quantities are provided for information only, with no assurances of accuracy provided, Contractor shall verify prior to bid. No adjustments will be made in the lump sum contract price, unless approved in advance by Engineer.

Payment

Section 3-07.5 is supplemented with the following:

(******)
“Scour Countermeasure Sheet Pile Wall”, lump sum

The lump sum contract price for the "Scour Countermeasure Sheet Pile Wall" shall include all Work in association with furnishing and installing sheet pile, waler system, plywood, etc.

"Force Account Sheet Pile Pre-Drilling", force account.

Payment for "Force Account Sheet Pile Pre-Drilling" will be by force account in accordance with Section 1-09.6. For the purposes of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount for the item "Force Account Sheet Pile Pre-Drilling" in the Bid Proposal to become a part of the total Bid by the Contractor.

Division 5
Surface Treatments and Pavements

Hot Mix Asphalt

Materials

Mix Design – Obtaining Project Approval

Section 5-04.2(2) is supplemented with the following:

(January 3, 2011)
ESAL's
The number of ESAL's for the design and acceptance of the HMA shall be ***
2.9 *** million.

HMA Tolerances, Specification Limits and Adjustments

The second paragraph of item number 1 of Section 9-03.8(7) is revised to read:

(September 8, 2020)
These tolerance and specification limits constitute the allowable limits as described in Section 1-06.2. The tolerance limit for aggregate shall not exceed the limits of the control points, except the No. 8 tolerance is ± 4% from the JMF, the No. 200 tolerance is ± 2.0% from the JMF with a minimum of 2% and a maximum of 8.0% passing the No. 200 sieve, other tolerance limits for sieves designated as 100 percent passing will be 99-100.

Equipment

Material Transfer Device or Material Transfer Vehicle

(April 4, 2016)
Section 5-04.3(3)D is deleted in its entirety.

HMA Compaction Acceptance

The column in Table 14 of Section 5-04.3(10), titled "Statistical Evaluation of HMA Compaction is Required for", is supplemented with the following:

(April 3, 2017)

- Any HMA for which the specified course thickness is greater than 0.10 feet and the HMA is placed in the shoulder.

Payment

Section 5-04.5 is supplemented with the following:

(January 13, 2021)

Asphalt Cost Price Adjustment

The Contracting Agency will make an Asphalt Cost Price Adjustment, either a credit or a payment, for qualifying changes in the reference cost of asphalt binder. The adjustment will be applied to partial payments made according to Section 1-09.9 for the following bid items when they are included in the proposal:

"HMA Cl. ___ PG ___"
"HMA for Approach Cl. ___ PG ___"
"HMA for Preleveling Cl. ___ PG ___"
"HMA for Pavement Repair Cl. ___ PG ___"
"Commercial HMA"

The adjustment is not a guarantee of full compensation for changes in the cost of asphalt binder. The Contracting Agency does not guarantee that asphalt binder will be available at the reference cost.

The Contracting Agency will establish asphalt binder reference costs twice each month and post the information on the Agency website at: https://wsdot.wa.gov/business-wsdot/contracts/about-public-works-contracts/payments-reporting/asphalt-binder-reference-cost. The reference cost will be determined using posted prices furnished by Poten & Partners, Inc. If the selected price source ceases to be available for any reason, then the Contracting Agency will select a substitute price source to establish the reference cost.

Price adjustments will be calculated one time per month. No price adjustment will be made if the Current Reference Cost is within +/-5% of the Base Cost. Reference costs for projects located in Eastern versus Western Washington shall be selected from the column in the WSDOT website table labeled "Eastern", or "Western", accordingly. The adjustment will be calculated as follows:

If the reference cost is greater than or equal to 105% of the base cost, then
Asphalt Cost Price Adjustment = (Current Reference Cost – (1.05 x Base Cost)) x (Q x 0.056).

If the reference cost is less than or equal to 95% of the base cost, then
Asphalt Cost Price Adjustment = (Current Reference Cost – (0.95 x Base Cost)) x (Q x 0.056).

Where: **Current Reference Cost** is selected from the website table based on the "Date Effective" that immediately precedes the current month's progress estimate end date. For work completed after all authorized

working days are used, the adjustment will be based on the posted reference cost during which contract time was exhausted.

Base Cost is selected from the website table based on the "Date Effective" that immediately precedes the contract bid opening date, and shall be a constant for all monthly adjustments.

Q = total tons of all classes of HMA paid in the current month's progress payment.

"Asphalt Cost Price Adjustment", by calculation.
"Asphalt Cost Price Adjustment" will be calculated and paid for as described in this section. For the purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount in the proposal to become a part of the total bid by the Contractor.

Division 6
Structures

General Requirements for Structures

Work Access and Temporary Structures

Section 6-01.5 is re-titled and revised to read:

(******)

Temporary Bridge

The Contractor shall design, furnish, erect, maintain, and remove a temporary bridge, including substructure, in accordance with this Special Provision and the details shown in the Plans unless otherwise accepted by the Engineer.

Geometric Requirements

The temporary bridge shall conform to the following geometric requirements:

1. The temporary bridge shall be an overall minimum unsupported length of 95 feet.

2. The minimum width on the temporary bridge between barriers or railings shall be 28 feet.

Design Requirements

The temporary bridge shall conform to the following design requirements:

1. The temporary bridge, including the barriers or railings, shall be designed in accordance with the latest edition of the AASHTO LRFD Bridge Design Specifications. Barriers or railings shall be designed to TL-2, minimum, with a minimum height of 32-inches, except where the Plans require a higher test level and railing height. Seismic design shall conform to AASHTO LRFD Seismic Guide Specification Section 3.6.

2. The minimum vehicular live load used for design shall be 75 percent of HL-93, unless otherwise specified in the Contract Plans.

3. The driving surface of the temporary bridge shall be durable, skid resistant deck, with an initial skid number of at least 35 and maintaining a skid number of 26 minimum, in accordance with AASHTO T 242.

4 The design of the temporary bridge including substructure shall be completed and stamped by an engineer licensed in structural or civil engineering in the State of Washington. The licensed engineer will be the Engineer of Record for this Work. The Contractor shall submit the engineer's qualifications for approval before the engineer begins the design calculations and drawings.

5. Notwithstanding the requirements of Section 1-06.1, the materials used by the Contractor to compose the temporary bridge may be salvaged steel, provided that the use of such salvaged steel shall be subject to inspection and approval by the Contractor's engineer of record and acceptance by the Engineer. For salvaged steel materials where the grade of steel cannot be positively identified, the design stresses for the steel shall conform to Section 6-02.3(17)B3.

6. In addition to the criteria specified in Item 1, the temporary bridge substructure shall be designed in accordance with the WSDOT Geotechnical Design Manual (M46-03). The substructures shall be determined by the final Geotechnical recommendations provided by the Contractor's licensed Geotechnical Engineer prior to submitting the Type 3E Working Drawings for the temporary bridge.

Submittals

The Contractor shall submit Type 3E Working Drawings of the temporary bridge including an erection plan and procedure conforming to Section 6-03.3(7)A.

If the temporary bridge is to be in place for more than 90 calendar days, the Contractor shall submit a Type 2E Working Drawing consisting of a load rating report prepared in accordance with the AASHTO *Manual for Bridge Evaluation* and WSDOT *Bridge Design Manual LRFD* M23-50 Chapter 13.

Construction and Removal

The Contractor shall construct the temporary bridge in accordance with the working drawings and erection plan as accepted by the Engineer, environmental permit conditions specified in Section 1-07.5 as supplemented in these Special Provisions and as shown in the Plans, and in accordance with the details shown in the Plans. The Contractor shall maintain the temporary bridge, including the driving surface, for the life of the temporary bridge in this project.

All welding, repair welding, and welding inspection, of steel components of the temporary bridge shall conform to the Section 6-03.3(25) and 6-03.3(25)A requirements specified for steel bridges.

After the temporary bridge is no longer needed the Contractor shall remove the temporary bridge.

Payment

Payment will be made in accordance with Section 1-09.3 for the following bid item:

"Temporary Bridge___", lump sum.

(******)

Temporary Bridge PB Line

The Contractor shall design, furnish, erect, maintain, and remove a temporary pedestrian bridge, including substructure, in accordance with this Special Provision and the details shown in the Plans unless otherwise accepted by the Engineer.

Geometric Requirements

The temporary bridge shall conform to the following geometric requirements:

1. The temporary bridge shall have an overall minimum length of 118 feet.

2. The minimum width on the temporary bridge between barriers or railings shall be 5 feet.

Design Requirements

The temporary pedestrian bridge shall conform to the following design requirements:

1. The temporary pedestrian bridge, including the barriers or railings, shall be designed in accordance with the latest edition of the AASHTO LRFD Bridge Design Specifications and AASHTO Guide Specifications for the Design of Pedestrian Bridges.

2. Barriers or railings shall be designed with a minimum height of 54-inches for bikes.

3. The walking surface of the temporary pedestrian bridge shall be durable, skid resistant deck, with an initial skid number of at least 35 and maintaining a skid number of 26 minimum, in accordance with AASHTO T 242.

4. The design of the temporary pedestrian bridge(s) including substructure(s) shall be completed and stamped by an engineer licensed in structural or civil engineering in the State of Washington. The licensed engineer(s) will be the Engineer of Record for this Work. The Contractor shall submit the engineer's qualifications for approval before the engineer begins the design calculations and drawings.

5. Notwithstanding the requirements of Section 1-06.1, the materials used by the Contractor to compose the temporary pedestrian bridge may be salvaged steel, provided that the use of such salvaged steel shall be subject to inspection and approval by the Contractor's engineer of record and acceptance by the Engineer. For salvaged steel materials where the grade of steel cannot be positively identified, the design stresses for the steel shall conform to Section 6-02.3(17)B3.

6. In addition to the criteria specified in Item 1, the temporary pedestrian bridge substructure shall be designed in accordance with the WSDOT Geotechnical Design Manual (M46-03). The substructures shall be

determined by the final Geotechnical recommendations provided by the Contractor's licensed Geotechnical Engineer prior to submitting Type 3E Working Drawings for the temporary pedestrian bridge.

Submittals

The Contractor shall submit Type 3E Working Drawings of the temporary pedestrian bridge including an erection plan and procedure conforming to Section 6-03.3(7)A.

If the temporary pedestrian bridge is to be in place for more than 90 calendar days, the Contractor shall submit a Type 2E Working Drawing consisting of a load rating report prepared in accordance with the AASHTO *Manual for Bridge Evaluation* and WSDOT *Bridge Design Manual LRFD* M23-50 Chapter 13.

Construction and Removal

The Contractor shall construct the temporary pedestrian bridge in accordance with the working drawings and erection plan as accepted by the Engineer, environmental permit conditions specified in Section 1-07.5 as supplemented in these Special Provisions and as shown in the Plans, and in accordance with the details shown in the Plans. The Contractor shall maintain the temporary pedestrian bridge, including the walking surface, for the life of the temporary pedestrian bridge in this project.

All welding, repair welding, and welding inspection, of steel components of the temporary pedestrian bridge shall conform to the Section 6-03.3(25) and 6-03.3(25)A requirements specified for steel bridges.

After the temporary pedestrian bridge is no longer needed the Contractor shall remove the temporary pedestrian bridge.

Payment

Payment will be made in accordance with Section 1-09.3 for the following bid item:

"Temporary Bridge PB Line", lump sum.

The lump sum Contract price for "Temporary Pedestrian Bridge" shall be full pay for all costs in connection with furnishing and installing the "Temporary Pedestrian Bridge" including substructure structural components.

Concrete Structures

Materials

Section 6-02.2 is supplemented with the following:

(September 8, 2020)

Epoxy Bonding Agent For Surfaces And For Steel Reinforcing Bar Dowels

Epoxy bonding agent for surfaces shall be Type II, as specified in Section 9-26.1. Epoxy bonding agent for steel reinforcing bar dowels shall be either Type I or Type IV, as specified in Section 9-26.1. The grade and class of epoxy bonding agent shall be as recommended by the resin manufacturer.

Bridge Supported Utilities

(June 26, 2000)
Inserts shall be of the type and model specified in the Plans. Inserts shall be galvanized in accordance with AASHTO M 111.

(September 3, 2019)
Hanger rods, and associated nuts and washers, shall conform to Section 9-06.5(1), and shall be galvanized in accordance with ASTM F2329.

Steel bars and plates shall conform to ASTM A 36 and shall be galvanized in accordance with AASHTO M 111.

(September 3, 2019)
Horizontal strut bolts or threaded rods, and associated nuts and washers, shall conform to Section 9-06.5(1), and shall be galvanized in accordance with ASTM F2329.

Pre-formed fabric pads shall be composed of multiple layers of duck, impregnated and bound with high quality oil resistant synthetic rubber, compressed into resilient pads. The pre-formed fabric pads shall conform to latest edition of MIL C 882 and the following requirements. The number of plies shall be as required to produce the specified thickness, after compression and vulcanizing.

Pre-formed fabric pads shall have a shore A hardness of 90±5 in accordance with ASTM D 2240.

Pre-formed fabric pads for bridge utility supports will be accepted based on the Manufacturer's Certificate of Compliance that the material furnished conforms to these specifications.

(June 26, 2000)
Pipe rolls or pipe saddles shall be of the type and model specified in the Plans.

(******)

Miscellaneous Bridge Approach Slab Materials

Premolded joint filler shall conform to Section 9-04.1(2).

Expanded polystyrene shall conform to Section 9-04.6.

(******)

Cellular Concrete

Welded wire fabric for welded wire mats, welded wire form facing units, and backing mats shall conform to Section 9-07.9, and shall be fabricated from smooth wire fabric conforming to Section 9-07.7.

Welded wire fabric for welded wire mats, welded wire form facing units, and backing mats shall be galvanized after fabrication in accordance with either ASTM A 641, Class 5 Coating (two ounces minimum per square foot) or AASHTO M 111, Coating Grade 85 (two ounces minimum per square foot). All damage to the galvanizing shall be repaired with one coat of paint conforming to Section 9-08.1(2)B.

Materials shall meet the following requirements:

Portland Cement	9-01
Aggregate	9-03
Admixtures	9-23
Fly Ash	9-23.9
Ground Granulated Blast Furnace Slag	9-23.10
Microsilica Fume	9-23.11
Metakaolin	9-23.12
Blended Supplementary Cementitious Material	9-23.13
Water	9-25
Light Weight Aggregate	ASTM C 332 Group I
Preformed Foam	ASTM C 869
Fiber Reinforcement	ASTM C 1116 Type II or III

Construction Requirements

Section 6-02.3 is supplemented with the following:

Bridge Supported Utilities

(August 3, 2015)
The Contractor shall furnish and install inserts for the bridge utility supports as shown in the Plans. The Contractor shall verify that the hanger rods freely hang plumb in their inserts, and shall make adjustments to the inserts as necessary and as accepted by the Engineer prior to utility installation.

(June 26, 2000)
The Contractor shall furnish and install the bridge utility supports, and the utility pipe or conduit pipe, as shown in the Plans.

(******)

Cellular Concrete

Cellular concrete's performance properties shall conform to the following:

		Cellular Concrete Class					
Cellular Concrete Property	**ASTM and AASHTO Test Method**	**II**		**III**		**IV**	
		Min	Max	Min	Max	Min	Max
Density, lb/ft^3	C 796, C 495, & T 121	21	30	21	36	21	42
Compressive Strength, psi	C 796 & C 495	40	--	80	--	120	--

Mix Design

Cellular concrete shall contain Portland cement, water, and preformed foam to form a hardened material that satisfies the cast density and compressive strength for the classes specified in the plans. Cellular concrete may include aggregate, light weight aggregate, and other components including but not limited to fly ash, fiber reinforcement, and chemical admixtures. The cellular concrete supplier shall determine the material components of the cellular concrete.

Cellular concrete mix design shall be developed by the cellular concrete supplier with supporting test data performed on the material to be used in accordance with ASTM C 796 and C 495, except oven dry density is not required.

The cellular concrete design density (unit weight) shall be determined in accordance with AASHTO T 121 with the following modifications:

Subsection 4.2 is deleted.

Subsection 4.3 is deleted.

Subsection 7.1 Fill the base completely. The base may be filled using multiple scoops or by pouring from a bucket or similar container until the bucket is just overfull.

Subsection 7.2 The cellular concrete shall not be consolidated by rodding, vibration, or tamping. When base is filled, lightly tap around exterior of the base with a rubber mallet to allow trapped air to escape.

Subsection 7.3 is deleted.

Material Submittal Requirements

The Contractor shall provide a Type 3 Working Drawing to the Engineer of the material components of the cellular concrete mix design documents. The documents shall include but are not limited to Qualified Products List, contractor product information sheets, manufacturer's data sheets, manufacturer's certificate of compliance with supporting tests in accordance with Section 1-06.3, catalog cuts, and Aggregate Source Approval report if aggregate materials are used.

The Contractor shall provide a Type 2 Working Drawings to the Engineer identifying the equipment used to batch, mix, and place the cellular concrete.

Acceptance

Cellular concrete will be accepted based on density (unit weight) in accordance with AASHTO T 121 and compressive strength in accordance with ASTM C 495.

AASHTO T 121 has the following modifications;

Subsection 4.2 is deleted.

Subsection 4.3 is deleted.

Subsection 7.1 Fill the base completely. The base may be filled using multiple scoops or by pouring from a bucket or similar container until the bucket is just overfull.

Subsection 7.2. The cellular concrete shall not be consolidated by rodding, vibration, or tamping. When base is filled, lightly tap around exterior of the base with a rubber mallet to allow trapped air to escape.

Subsection 7.3 is deleted.

Cellular concrete specimens (cylinders) for compressive strength shall be made and cured in accordance with ASTM C 495. ASTM C 495 is revised to report the compressive strength to the nearest 1 psi.

During the installation of the cellular concrete a sample will be taken a minimum of once per lift by the Engineer in accordance with WAQTC TM 2 except the sample will not be remixed and shall be sampled from the point of placement. The sample will be taken after the first 10 cubic yards of placement. If both classes of cellular concrete are used in a lift then one sample of each class will be required. The cellular concrete supplier shall provide a Certificate of Compliance for each truckload of cellular concrete in accordance with Section 6-02.3(5)B.

Final acceptance of the cellular concrete shall be based on both the density (lb/ft^3), at the time of placement, and the 28 day compressive strength (psi).

Test Slab Using Cellular Concrete

After the Contractor receives the Engineer's approval for the cellular concrete mix designs, the Contractor shall construct a test slab using Cellular Concrete Class 2, Class 3 and Class 4. The test slab shall be constructed a minimum of 14 calendar days prior to the first production placement of cellular concrete. Based on successful construction of the test slab, the Engineer can allow the Contractor to proceed with production cellular concrete work within the 14 day period.

The Contractor shall submit three 3"x6" cylindrical samples of each class of cellular concrete to the Engineer for informational review. Cylinders shall be prepared in accordance with ASTM C 495.

The test slab may be constructed on grade. The test slab shall have a minimum thickness of 4 feet, shall have minimum plan dimensions of 8-feet by 8-feet, and shall be square or rectangular. The sample panel constructed per the Contract plans. The bottom lift shall be Cellular Concrete Class 2 and the top lift shall be Cellular Concrete Class 4.

During construction of the test slab, the Contractor shall demonstrate, in two placement lifts, the concrete sampling and testing, concrete placement system, and the concrete finishing operation.

After the construction of the test slab and the demonstration of cellular concrete fill construction operations is complete, the Contractor shall remove and dispose of the test slab in accordance with Sections 2-02.3 and 2-03.3(7)C.

Construction of the Cellular Concrete Fill

The Contractor shall submit the Manufactures cure time recommendations for allowing the Contractor's personnel and equipment to proceed with the next lift The Contractor shall conform to the Manufacturer's recommendations regarding maximum lift thickness and time period between lifts.

The minimum horizontal reinforcement ratio shall be in accordance with the Contract Plans.

The Contractors use of construction equipment and construction operations shall not damage the cellular concrete. Unacceptable levels of damage include, but are not limited to:

- Rutting of the cellular concrete to a depth of 0.75-inches or greater.
- Cracks in the cellular concrete greater than two feet in length or with an opening of 0.5-inches or greater or that exposes the reinforcement or that have visibly propagated down the face of the cellular concrete.
- Crushed sections that are greater than 3 feet in diameter or have a depth of 6-inches or greater or expose the reinforcement.
- Faulted sections in which broken sections of cellular concrete have vertical offsets of 0.5-inches or greater or expose the reinforcement.

The Contractor shall submit a work plan identifying the proposed equipment to be used on the cellular concrete, the anticipated loads from the equipment and estimated strength of the cellular concrete based on the uniaxial compressive strength of tested samples or a typical strength gain curve with respect to time. The Contractor shall demonstrate that the cellular concrete has developed adequate strength to support these loads with an acceptable factor of safety.

The cellular concrete shall not be placed when moderate rain, 0.11 inch per hour, or greater is expected using NOAA forecast,

http://forecast.weather.gov/MapClick.php?lat=48.804&lon=-122.363&unit=0&lg=english&FcstType=graphical

or as directed by the Project Engineer. The Contractor shall protect the cellular concrete from weather related damage using tarps, plastic, or other methods approved by the Project Engineer until the cellular concrete has achieved an appropriate cure as recommended by the Manufacturer.

Section 6-02.3(6)A1 and 6-02.3(6)A2 of the 2027 Standard Specification shall apply.

The Contractor shall wait until the Cellular Concrete Class 4 under the bridge abutment has achieved an 80 psi compressive strength prior to placing the bridge girders.

The Contractor shall submit to the Engineer, for review and approval, equipment loading information for the girder placement.

The Contractor shall only use static rollers to place the CSBC and HMA. Vibrator methods of compaction will not be allowed.

Proportioning Materials

Section 6-02.3(2) is supplemented with the following:

(******)
Bridge Approach Slab at Bridge No. 544/10
Approach slab concrete, Class 4000A, shall have a minimum compressive strength of 2500 psi at 24-hours prior to introduction of traffic loading, and 4000 psi at 28-days.

Type III cement conforming to Section 9-01.2(1) may be used.

Bridge Decks and Bridge Approach Slabs

Section 6-02.3(10) is supplemented with the following:

(******)
Bridge Approach Slab Bridge No. 544/10
After removing the existing bridge approach slab and associated subgrade to the level required for bridge approach slab reconstruction, the subgrade shall be prepared in accordance with Section 6-02.3(10)D.

The ends of the bridge approach slab anchors shall be encapsulated with expanded polystyrene as shown in the plans.

The bridge approach slab shall be cast and cured in accordance with Sections 6-02.3(2)A and 6-02.3(11), respectively, as supplemented in these Special Provisions. The joint between the bridge and bridge approach slab shall be filled with expanded polystyrene as shown in the Plans.

(******)
Force Account Pavement Seat Repair Bridge No. 544/10
The Contractor shall submit a Type 2 Working Drawing consisting of the concrete pavement seat repair procedure.

After each stage of removal of the south end bridge approach slabs of Bridge No. 544/10, the Contractor shall inspect the condition of the vertical and horizontal surfaces (as shown in the plans) of the existing reinforced concrete pavement seat with the Engineer.

If the Engineer determines that repair of the pavement seat is necessary, the Contractor shall remove the existing reinforced concrete pavement seat to the limits specified by the Engineer. The removed materials shall be contained, collected, and disposed of in accordance with Section 3-02.3(2)A2.

The Contractor shall form, cast, and cure the repaired reinforced concrete pavement seat to match the existing cross section shape and dimensions. If the repair is extensive enough to require replacement of steel reinforcing bars, two steel reinforcing bars shall be placed along the top face of the pavement seat as

appropriate, with the remaining four steel reinforcing bars spaced equally along the vertical and inclined face as appropriate. The existing steel reinforcing bars extending from the end diaphragm shall be retained.

Prior to beginning each stage's Work period, the Contractor shall have the following stockpile of materials available on-site:

1. Patching mortar with aggregate conforming to Section 9-20.1(2) and water conforming to Section 9-25.1 sufficient to mix 5-cubic feet of repair concrete.

2. Six straight bars of #4 steel reinforcing bar conforming to Section 9-07.2. Each bar shall be 15'-0" long.

Patching mortar with aggregate and steel reinforcing bar remaining after completion of the final stage of bridge approach slab reconstruction and any associated concrete pavement seat repair will become the property of the Contracting Agency.

Bridge Approach Slab Orientation and Anchors

Section 6-02.3(10)F is supplemented with the following:

(******)
The pavement end of the bridge approach slab shall be constructed parallel to the pavement seat of the new bridge 544/9. The pavement end of the bridge approach slab shall be constructed perpendicular to the roadway center line of the new bridge 544/9.

Curing Concrete

Section 6-02.3(11) is supplemented with the following:

(******)
The bridge approach slabs shall be finished with 2 coats of curing compound with continuous wet cure for minimum 24 hours using heavy quilted burlap blankets.

Finishing Concrete Surfaces

Pigmented Sealer for Concrete Surfaces

Section 6-02.3(14)C is supplemented with the following:

(April 6, 2009)
The color of the pigmented sealer shall be Washington Gray.

Concrete Surfaces Finishes Produced by Form Liners

Section 6-02.3(14)D is supplemented with the following:

(******)
Architectural Finish for Traffic Barrier on Bridge 544/10

Form liners shall be placed with fins and joints normal to grade for traffic barrier applications. The Contractor shall order form liners for traffic barrier exterior face treatment to match exiting architectural finish.

Bridge Bearings

Section 6-02.3(19) is supplemented with the following:

(******)
The Contractor shall adhere the elastomeric bearing pads to the concrete surface using the Manufacture's recommended adhesive product.

Reinforcement

Placing and Fastening

Section 6-02.3(24)C is supplemented with the following:

(September 8, 2020)
Drilling Holes for, and Setting, Steel Reinforcing Bar Dowels
Where called for in the Plans, holes shall be drilled into existing concrete to the size and dimension shown in the Plans. The Contractor may use any method for drilling the holes provided the method selected does not damage the concrete and the steel reinforcing bar that is to remain. Core drilling will be required when specifically noted in the Plans.

The Contractor shall exercise care in locating and drilling the holes to avoid damage to existing steel reinforcing bars and concrete. Location of the holes may be shifted slightly with the acceptance of the Engineer in order to avoid damaging the existing steel reinforcing bars. All damage caused by the Contractor's operations shall be repaired by the Contractor in accordance with Section 1-07.13.

Steel reinforcing bars shall be set into the holes noted in the Plans with epoxy resin. The holes shall be cleaned before placing the resin.

The Contractor shall demonstrate, to the satisfaction of the Engineer, that the method used for setting the steel reinforcing bars completely fills the void between the steel reinforcing bar and the concrete with epoxy resin. Dams shall be placed at the front of the holes to confine the epoxy and shall not be removed until the epoxy has cured in the hole.

Measurement

Section 6-02.4 is supplemented with the following:

(September 8, 2020)
*** Superstructure – Bridge No. 544/9, and Superstructure – Bridge No. 544/10 *** contains the following approximate quantities of materials and work:

***
<u>Superstructure – Bridge No. 544/9</u>

Bridge Deck Test Slab	100	S.F.
Epoxy-Coated St. Reinf. Bar	66,775	LB.
St. Reinf. Bar	12,000	LB.
Conc. Class 4000D	267	C.Y.
Conc. Class 4000	48	C.Y.
Conc. Class 4000 for Sidewalk	22	C.Y.
Elastomeric Bearing Pads	12	EACH
Elastomeric Girder Stop Pads	24	EACH
Utility Hanger Insert	575	LB.

Superstructure – Bridge No. 544/10

St. Reinf. Bar	333	LB.
Conc. Class 4000 for Sidewalk	2	C.Y.
Reinstall Salvaged BP Rail	70	L.F.

***

The quantities are listed only for the convenience of the Contractor in determining the volume of work involved and are not guaranteed to be accurate. The prospective bidders shall verify these quantities before submitting a bid. No adjustments other than for accepted changes will be made in the lump sum Contract price for *** Superstructure – Bridge No. 544/9, and Superstructure – Bridge No. 544/10 *** even though the actual quantities required may deviate from those listed.

(******)

Cellular Concrete

Cellular concrete will be measured by the cubic yard.

Welded wire for cellular conc. fill will be measured by the pound.

Payment

Section 6-02.5 is supplemented with the following:

(June 26, 2000)

Bridge and Structures Minor Items

For the purpose of payment, such bridge and structures items as *** adhesive, butyl rubber sheeting and assembly, concrete nails, concrete inserts, epoxy bonding agent, grout, mortar, premolded joint filler, resin bonded anchors, anchor bolts, anvil insert, polystyrene foam *** etc., for which there is no pay item included in the proposal, are considered as bridge and structures minor items. All costs in connection with furnishing and installing these bridge and structures minor items as shown and noted in the Plans and as outlined in these specifications and in the Standard Specifications shall be included in the *** applicable associated item of Work. ***

(June 26, 2000)

Bridge Supported Utilities

All costs in connection with placing *** the 10 inch diameter sewer line and the 12 inch diameter water line with 20 in diameter steel pipe liner, beneath the bridge approach slabs of, and *** through the superstructure of *** Bridge No. 544/9 *** as shown in the Plans, including all *** conduit pipe and sleeves, threaded rods, bars and plates, pipe rolls and

braces, but excluding all concrete inserts into the bridge deck ***, shall be included in the *** unit contract price for the associated items of work. ***

(June 26, 2000)
No additional compensation will be made by reason of any delay or other expense to the Contractor caused by coordination with the utility company or by installing utility company furnished items. However, any unavoidable delays to the Contractor caused by coordination with the utility company or resulting from installing utility company furnished items will be adjusted in accordance with Section 1-08.8.

(******)
"Force Account Pavement Seat Repair Br. No. 544/10", force account.
Payment for "Force Account Pavement Seat Repair Br. No. 544/10" will be by force account in accordance with Section 1-09.6. For the purposes of providing a common Proposal for all Bidders, the Contracting Agency has entered an amount for the item "Force Account Pavement Seat Repair Br. No. 544/10" in the Bid Proposal to become a part of the total Bid by the Contractor.

(******)
Cellular Concrete

Cellular Conc. Class ____, per cubic yard.

All cost in association in furnishing, installing, and removing the test slab shall be included in the unit Contract price for "Cellular Conc. Class ____".

Welded Wire for Cellular Conc. Fill, per pound.

Bridge Railings

Materials

Section 6-06.2 is supplemented with the following:

(April 6, 2015)
Tamper Proof Nuts for steel Bridge Railing Type BP
Tamper proof nuts for steel Bridge Railing Type BP shall be one of the following products from one of the following manufacturers:

Vandlgard-Nut VCN151-6 (zinc)

Manufactured by	Local Supplier
Simi Fastening Systems	Northwest Fasteners Inc.
4615 Industrial St. Bldg. No. 1-P	15127 Washington Avenue SW
Simi Valley, CA 93063	Lakewood, WA 98498
(800) 959-8256	(253) 582-1671
FAX (805) 581-9162	FAX (253) 581-3131
www.simifast.com	

Trigroove Nut ZTRN37C (Zamak 5 zinc alloy AC41A)
Breakaway Nut ZNB37C (Zamak 5 zinc alloy AC41A)

Manufactured by	Local Supplier
Screw & Supply Inc.	Tacoma Screw Products Inc.

1712 Church Street
Holbrook, NY 11741
(800) 223-1316
FAX (631) 567-3057
www.screwsupply.com

2001 Center Street
Tacoma, WA 98409
(800) 562-8192
FAX (253) 272-2719

Spanner Nut 1N.386 (zinc alloy)
Manufactured by
TamperProof Screw Company Inc.
30 Laurel Street
Hicksville, NY 11801
(516) 931-1616
FAX (516) 931-1654
www.tamperproof.com

Trident Tamper Resistant Nut 37CNTNZ (Zamak 5 zinc alloy AC41A)
Breakaway Nut 37CNBAWZ (Zamak 5 zinc alloy AC41A)
Breakaway Nut 37CNBAWS (stainless steel alloy 304)
Manufactured by
Tanner Bolt & Nut Company
4302 Glenwood Road
Brooklyn, NY 11210
(800) 456-2658
FAX (888) 434-3215
www.tannerbolt.com

Concrete Barrier

Construction Requirements

Temporary Barrier

The first paragraph of Section 6-10.3(5) is revised to read:

(February 3, 2020)
For temporary barrier, the Contractor shall use precast concrete barrier type F. Temporary concrete barrier type F shall comply with Standard Plan requirements and cross-sectional dimensions, except that: (1) it may be made in other lengths than those shown in the Standard Plan, and (2) it may have permanent lifting holes no larger than 4 inches in diameter or lifting loops.

Payment

Section 6-10.5 is supplemented with the following:

(August 1, 2016)
The following paragraph is added immediately following the bid item, “Temporary Barrier”:

The unit contract price per linear foot for "Temporary Barrier" shall include all costs for furnishing, placing, maintaining, replacing, and cleaning barrier delineation.

(******)

All costs in connection with the architectural finish to be applied to the reconstruction of the traffic barrier of bridge No. 544/10 shall be included in the Contract price for "Traffic Barrier Bridge No. 544/10".

Shafts

Materials

Access Tubes and Caps

The first paragraph of Section 9-36.4 is revised to read:

(October 3, 2022)
Access tubes for CSL or TIP testing shall be steel pipe of 0.145 inches minimum wall thickness and at least 1½ inch inside diameter, or shall be Sonitec V2 CSL Tubes manufactured in America by Dextra. Dextra CSL tubes shall use Dextra caps and connectors.

Construction Requirements

Section 6-19.3 is supplemented with the following:

(******)

Pre-Loading Shafts

After the installation of the Sand Drains, Shafts, and the Shaft Cap at Pier 1, the Contractor shall pre-load the Pier 1 foundation to achieve settlement as described below and as shown in the Plans.

The Contractor shall submit a Type 2 Working Drawing with details and dimensions of the proposed Pre-Loading System and Settlement Monitoring Plan a minimum of 20 days prior to installation of instrumentation.

The Contractor shall not begin pre-loading of the Shaft Cap at Pier 1 until the concrete strength has reached 3,500 psi.

The Contractor shall protect the Shaft Cap at Pier 1 from damage during the installation, monitoring and removal of the Pre-Loading System.

The Contractor shall apply a uniform total load of 2,500 kips across the Shaft Cap at Pier 1. The Contractor may use ecology blocks (2x2x6) or another suitable loading system to achieve the required load. The Contractor shall apply the load evenly across the surface to avoid any damage or uneven settlement.

The Contractor shall maintain the Pre-Loading System in place until settlement has stabilized and confirmation has been received from the Engineer to remove the Pre-Loading System.

It is anticipated that the settlement will be between 4 to 6 inches and will occur within 90 days.

Shaft Settlement Monitoring

The Contractor shall monitor the settlement of the Shaft Cap at Pier 1 during shaft pre-loading activities by installing settlement monitoring points. This work shall be performed in accordance with Special Provision Contractor Surveying - Structure of these Special Provisions.

The Contractor shall include the following in the Settlement Monitoring Plan submittal:

1. Schedule and outline of procedures for survey points installation and monitoring.

2. Detailed plan of survey points and vertical control points locations for review and comment.

3. Detailed plan of settlement monitoring, reporting methods, and data handoff to the Engineer.

Prior to beginning pre-loading activities, the Contractor shall establish a minimum of four settlement monitoring points on the top of the Shaft Cap at Pier 1. Locate one settlement monitoring point within 1 foot of each corner of the Shaft Cap. Establish one or more optically monitored vertical control points at a location that remains stable and is capable of being optically monitored throughout the pre-loading activities. The Contractor shall include the proposed locations of the settlement monitoring points and vertical control points and the proposed method of monitoring in the Settlement Monitoring Plan.

The Contractor shall optically monitor the settlement of each monitoring point on the Shaft Cap at Pier 1 and provide a copy of each day's settlement monitoring record to the Engineer by the end of shift. Data collection shall begin immediately after each survey point is installed and continue until directed by the Engineer.

Quality Assurance

Shaft Construction Tolerances

Section 6-19.3(1)A is supplemented with the following:

(******)
Shaft Construction Tolerances
Shafts shall be constructed so that the center at the top of the shaft is within the following tolerance:

Shaft Diameter (feet)	Tolerance (inches)
3.5	4

Shafts shall be within 1.5 percent of plumb. For rock excavation, allowable tolerance can be increased to 2 percent maximum.

During drilling or excavation of the shaft, the Contractor shall make frequent checks on the plumbness, alignment, and dimensions of the shaft. Any deviation exceeding the allowable tolerances shall be corrected with a procedure approved by the Engineer.

Shafts steel reinforcing bar placement tolerances shall conform to Section 6-02.3(24)C. The elevation of the top of the reinforcing cage for drilled shafts shall be within +6 inches and -3 inches from the elevation shown in the Plans.

Shaft Excavation

Temporary and Permanent Shaft Casing

Section 6-19.3(3)B is supplemented with the following:

(January 2, 2012)
Shaft casing shall be equipped with cutting teeth or a cutting shoe, and installed by either rotating or oscillating the casting. Installing the casing by vibratory means will not be allowed.

Required Use of Slurry in Shaft Excavation

Section 6-19.3(3)I is supplemented with the following:

(August 3, 2015)
If the Contractor is utilizing casing that is adequately sealed into competent soils such that the water cannot enter the excavation, the Contractor may, with the Engineer's permission, continue excavation in wet soils without slurry provided the water level within the casing does not rise or exhibit flow.

Contractor Furnished Accessories for Nondestructive QA Testing

Thermal Wire and Thermal Access Points (TAPs)

Section 6-19.3(6)E is supplemented with the following:

(January 2, 2018)
The thermal wire and associated couplers shall be obtained from the following source:

Pile Dynamics, Inc.
30724 Aurora Road
Cleveland, OH 44139
(216) 831-6131
FAX: (216) 831-0916
www.pile.com

Measurement

Section 6-19.4 is supplemented with the following:

(******)
"Constructing 3.5 Ft. Diam Shaft" will be measured by the linear foot.

(******)

The bid item "Pre-Loading Shafts" contains the following approximate quantities of materials and work:

Pre-Loading Shafts

Shaft Cap Protection	1250	S.F.
Ecology Blocks (2x2x6)	715	Each
Shaft Settlement Monitoring System	90	Days

The quantities are provided for information only, with no assurances of accuracy provided, Contractor shall verify prior to bid. No adjustments will be made in the lump sum Contract price for Pre-Loading Shafts, unless approved in advance by Engineer.

Payment

Section 6-19.5 is supplemented with the following:

(******)
"Constructing 3.5 Ft. Diam Shaft", per linear foot.

(******)
"Pre-Loading Shafts", lump sum

The lump sum contract price for the "Pre-Loading Shafts" shall include all Work associated with protecting the shaft cap, furnishing, installing and removing the Pre-Loading System, monitoring foundation settlement and all incidental Work necessary to complete the pre-loading and settlement monitoring activities.

(******)

Sand Drains

Description

This item of work shall consist of furnishing all materials, labor, tools, equipment, services, and incidentals necessary to install sand drains as shown in the plans.

Materials

Materials shall meet the requirements of the following sections:

Backfill for Sand Drains	9-03.13

Construction Requirements

Submittals

The Contractor shall submit the following items to the Engineer a minimum of 15 days prior to installation of instrumentation.

1. An overall construction operation sequence and the sequence of drain construction.

2. Details of drain excavation methods including proposed drilling methods, methods for cleanout of the drains, disposal plan for excavated material and drilling slurry (if applicable), and a review of method suitability to the anticipated site and subsurface conditions.

3. Details of the method(s) to be used to ensure drain shaft stability during excavation and sand placement (e.g., using temporary casing or other means to prevent caving or bottom heave). This shall include a review of method suitability to the anticipated site and subsurface conditions. If temporary casings are proposed, casing dimensions and detailed procedures for casing installation and removal shall be provided.

4. Details of sand placement including proposed operational procedures.

5. Details of the device used to prevent unauthorized entry into a drain excavation.

Drain Excavation

Sand Drains shall be excavated to the required depth and diameter as shown in the Plans. The Sand Drains shall have a minimum diameter of 8 inches and a maximum diameter of 15 inches. The excavation shall be completed in a continuous operation using equipment capable of excavating through the type of material expected to be encountered.

Sand Drains shall be constructed so that the center at the top of the shaft is within a 6-inch horizonal tolerance.

The Contractor may use temporary telescoping casing to construct the drains.

If the drain excavation is stopped the drain shaft shall be secured by installation of a safety cover. It shall be the Contractor's responsibility to ensure the safety of the drain and surrounding soil and the stability of the sidewalls. A temporary casing or other methods specified in the drain installation plan shall be used if necessary to ensure such safety and stability.

Where caving conditions are encountered, no further excavation will be allowed until the Contractor has implemented the method to prevent ground caving as submitted in accordance with item 3 of the Drain Shaft Installation Plan.

No more than 12 inches of loose or disturbed material shall be present at the bottom of the drain just prior to beginning sand backfill placement.

The excavated drain shaft shall be inspected and receive acceptance by the Engineer prior to proceeding with construction.

When obstructions are encountered, the Contractor shall notify the Engineer promptly. An obstruction is defined as a specific object (including, but not limited to, boulders, logs, and previously fabricated objects) encountered during the drain excavation operation that prevents or hinders the advancement of the drain excavation. When efforts to advance past the obstruction to the design drain tip elevation result in the rate of advance of the drain drilling equipment being significantly reduced relative to the rate of advance for the

rest of the drain excavation, then the Contractor shall remove the obstruction under the provisions of Section 6-16.5. The method of removal of such obstructions, and the continuation of excavation shall be as proposed by the Contractor and approved by the Engineer.

The temporary casings for the drains shall be removed. A minimum 5-foot head of sand shall be maintained to balance the soil and water pressure at the bottom of the casing. The casing shall be smooth.

Backfilling Drains

The excavated drain shall be backfilled as shown in the Plans with Backfill for Sand Drains.

Placement of the sand drain backfill shall commence immediately after completing the drain excavation and receiving the Engineer's approval of the excavation. Vibration of drain backfill is not permitted. If water is not present, the drain backfill shall be deposited by a method that prevents segregation of aggregates. The drain backfill shall be placed such that the free-fall is vertical down the drain shaft without hitting the sides of excavated drain. The Contractor's method for depositing the drain backfill shall have approval of the Engineer prior to the placement of the drain backfill.

Payment

Payment will be made in accordance with Section 1-04.1 for the following Bid items when included in the Proposal:

"Sand Drains", lump sum.

The lump sum Contract price for "Sand Drains" shall be full payment to perform the Work as specified, including but not limited to, drain excavation, temporary casing if used, sand backfill for sand drains, and sand drainage blanket.

Division 7
Drainage Structures, Storm Sewers, Sanitary Sewers, Water Mains, and Conduits

Storm Sewers

Description

Section 7-04.1 is supplemented with the following.

(******)

This work shall consist of installing duckbill check valves as shown in the Plans.

Materials

Section 7-04.2 is supplemented with the following:

(******)

Duckbill Check Valve

Duckbill Check Valve 18 In. Diam. shall meet the requirements of fitting a Schedule A

Storm Sewer Pipe 18 In. Diam. with a flow rate of 8.55 cubic feet/second.

Construction Requirements

Section 7-04.3 is supplemented with the following:

(******)
All duckbill check valves shall be inspected upon delivery in the field to ensure proper working order before installation. All duckbill check valves shall be installed and tested per manufacturer's written instructions.

Measurement

Section 7-04.4 is supplemented with the following:

(******)
Duckbill Check Valve 18 In. Diam. will be measured per each.

Payment

Section 7-04.5 is supplemented with the following:

(******)
"Duckbill Check Valve 18 In. Diam.", per each.
The unit contract price for "Duckbill Check Valve 18 In. Diam." shall be full pay for furnishing all material, labor and equipment associated with the installation of the "Duckbill Check Valve 18 In. Diam."

Water Mains

Materials

Section 7-09.2 is supplemented with the following:

(******)
All bolts used in buried flanges shall be ASTM A307 Grade B unfinished with nuts to ASTM A563 Grade A and washers to ASTM F8444, or ASTM A325 Type 3 (corten steel) unfinished, with nuts to ASTM A563C3 or A563DH3 and washers to ASTM F436-1. All bolts, nuts and washers used in exposed or above ground locations shall be ASTM A307 Grade B unfinished or hot-dip galvanized.

The #10 solid copper wire with blue insulation with visual acceptance by the Engineer.

Construction Requirements

Section 7-09.3 is supplemented with the following:

(******)
All tie-ins, shutdown, flushing, and health samples shall be coordinated with the city of Everson (CoE). The Contractor shall not operate any valves. All excavation, backfill, dewatering, compaction, shoring, and restoration necessary for the CoE tie in shall be performed by the Contractor.

All Ductile Iron water pipe and fittings shall be completely wrapped with a minimum of eight-mil polyethylene pipe encasement and installed in accordance with AWWA C105 and Specifications 7-09.3(17).

Use dichlorination equipment when flushing or, with permission of the appropriate sewer utility, flush into sanitary sewer manholes. The Contractor shall not flush into or allow chlorinated water to drain into any creek, wetland, or catch basin. The Contractor shall submit a Pressure Testing, Disinfection, and Flushing plan to the CoE 10 working days prior to construction.

The utility locations are approximate. The Contractor is to verify actual location and depth prior to construction.

Before final connection to the existing CoE system, all new water pipelines and repaired portions of/or extension to existing pipelines shall be adequately disinfected and a satisfactory bacteriological report obtained.

CoE inspectors shall have access to all Work during installation of water main.

Payment

Section 7-09.5 is supplemented with the following:

(******)
All costs associated with maintaining flow of the 12-inch diameter water main system shall be included in the Bid Item cost of “PVC Pipe for Water Main 12 In. Diam.”.

Sanitary Sewers

Description

Section 7-17.1 is supplemented with the following:

(******)
The Work consists of installing a fully restrained high-density polyethylene sanitary sewer force main.

Materials

Section 7-17.2 is supplemented with the following:

(******)

HDPE Pipe for Sewer Force main

HDPE pipe shall conform to Section 9-05.23 and shall be pressure rating DR 9 minimum with butt fusion joints.

Fittings

All fittings for HDPE forcemain pipe shall have a Novalac Epoxy lining per Section 9-05.13. All fittings for HDPE forcemain shall be restrained.

Joint Restraint Systems

All fittings for the HDPE forcemain shall be restrained. The restrained fittings shall conform to Section 9-30.2(6) and shall be designed for full restraint up to the hydrostatic test pressure.

Measurement

Section 7-17.4 is supplemented with the following:

(******)

The length of HDPE sewer force main pipe will be measured per linear foot installed along the invert and will include the length through elbows, and fittings.

Payment

Section 7-17.5 is supplemented with the following:

(******)

All costs associated with maintaining flow of the 10-inch diameter sanitary sewer force main system, including pumping shall be included in the Bid Item cost of “High-Density Polyethylene Pipe for Force Main 10 In. Diam.”.

“High-Density Polyethylene Pipe for Force Main 10 In. Diam.”, per linear foot.

The unit contract price for “High-Density Polyethylene Pipe for Force Main 10 In. Diam.” shall be full payment for furnishing, hauling, and assembling in place the completed installation, including but not limited to, all required pipe, fittings, transition couplings, and restraint systems, thrust blocks, polyethylene encasement of fittings, tracer wire, maintaining flow in existing sewers, and cleaning.

(******)

Division 7 is supplemented with the following:

Ductile Iron Casing Pipe

Description

This Work consists of constructing 20” ductile iron casing pipe in coordination with the water main and force main installations. The casing pipe shall be installed by open cut methods in accordance with the Plans and these specifications.

Materials

Ductile Iron Casing

Ductile iron pipe shall conform to the requirements of ANSI/AWWA C151/A21.51 and shall be 20-inch nominal diameter unless otherwise shown on the plans. Pipe shall be cement-mortar lined in accordance with ANSI/AWWA C104/A21.4 and shall have an asphaltic exterior coating or approved corrosion protection system. Joints shall conform to ANSI/AWWA C111/A21.11 and shall be push-on, mechanical, or restrained type as specified. All pipe, fittings, and appurtenances shall be furnished and installed in accordance with the manufacturer's recommendations and applicable ANSI/AWWA standards.

Casing Spacers

Casing spacer shall be a two-piece shell and made from T304 stainless steel of a minimum 14-gauge thickness. Stainless steel shell shall be 8-inch minimum width. Each shell section shall be lined with a 0.09-inch thick, ribbed PVC extrusion with a retaining section that overlaps the edges of the shell and prevents slippage. PVC liner shall have a minimum durometer hardness of 80. Bearing surfaces (runners) shall be ultra-high molecular weight polyethylene (UHMW) or glass filled polymer plastic. The runners shall be attached to support structures (risers) at appropriate positions to properly support the carrier pipe(s) within the casing pipe and to ease installation. The runners shall be mechanically bolted to the spacer. Risers shall be MIG welded to the shell, where applicable. Bottom risers 6” and over in height shall be reinforced. All reinforcing plates shall be 10-gauge T304 stainless steel and shall be MIG welded to mating parts. Casing spacers shall be designed to center and restrain the carrier pipe within the casing pipe, with a top runner clearance of 0.75-inch minimum. All weldments shall be fully chemically passivated in accordance with ASTM A380.

Casing End Seals

Casing end seals shall be centered, seamless, pull-on type, made of 1/8-inch thick synthetic rubber. End seals and hardware shall be installed in accordance with the manufacturer's recommendations and shall provide a durable, watertight closure at each end of the casing.

Construction Requirements

Carrier pipes shall be installed with spacers. The casing pipe ends shall be sealed. Details shown on Utility Detail Sheets.

Measurement

Measurement of casing pipe will be measured by the linear foot of pipe installed.

Payment

Payment will be made in accordance with Section 1-04.1, for each of the following Bid items when included in the Proposal:

“Ductile Iron Casing Pipe for Force Main 20 In. Diam.”, per linear foot.

“Ductile Iron Casing Pipe for Water Main 20 In. Diam.”, per linear foot.

The unit Contract price for “Ductile Iron Casing for Force Main 20 In. Diam.” and “Ductile Iron Casing for Water Main 20 In. Diam.” shall be full payment for all Work required to furnish and install casing pipe, including but not limited to, trench excavation, bedding, laying pipe, welding, fittings, casing spacers, end seals, granular backfill, pipe zone bedding, compaction of backfill, and cleanup.

(******)

Division 7 is supplemented with the following:

Fuel Tank Relocation

Description

This Work consists of removing the existing fuel tank for the city of Everson sanitary sewer pump station and relocating to an adjacent location to avoid construction activities and remain operational throughout construction, in coordination with the city of Everson.

Construction Requirements

Relocation of the existing fuel tank includes removal and relocation of the tank to solid, level base surface along with disconnecting and reconnecting fuel lines.

The solid, level surface shall consist of a concrete pad and anchoring, or equivalent as approved by the Engineer, that meets the load requirements for the weight of a full tank and keeps the tank upright and level throughout the duration of construction.

The relocated tank shall be located a minimum 10 feet from the existing pump station generator and electrical equipment. The Contractor shall furnish a new fuel line to connect the fuel tank to the generator if the existing line does not reach.

Work includes all excavation, backfilling, form work, connection and disconnections, labor and materials necessary for operation.

Submittals

Prior to the start of the fuel tank relocation, the Contractor shall submit Type 3 Working Drawings, in accordance with Section 1-05.3, including site plan for location of fuel tank and base surface material.

Payment

Payment will be made in accordance with Section 1-04.1 for the following Bid items when included in the Proposal:

"Fuel Tank Relocation" lump sum.

The lump sum Contract price for "Fuel Tank Relocation" shall be full payment to perform the Work as specified.

Division 8
Miscellaneous Construction

Roadside Restoration

Materials

Erosion Control and Roadside Planting

Topsoil

Topsoil Type A

Section 9-14.2(1) is supplemented with the following:

(NWR September 12, 2019)

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 (NH_4OAC)	meq/100g	***
Magnesium (Mg)	S-5.10 (NH_4OAC) 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 (SO_4-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 Percentage (ESP)	ESP	%	10 Max.
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, 3rd 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.

Seed

Section 9-14.3 is supplemented with the following:

(******)
(NWR February 8, 2022)
Pollinator Seed Mix

Seed of the following composition, proportion, and quality shall be applied at a rate of **55** pounds per acre on areas requiring seeding, fertilizing, and mulching.

Seed Choice Chart:

Group	Types of Seed in Mixture	Common Name	# Pounds of PLS/acre
Group 1	*Agrostis exarata**	Spike bentgrass	2.0
	Koeleria cristata	Prairie junegrass	
	Deschampsia cespitosa	Tufted hairgrass	

Group 2	*Festuca rubra** (commutata*) spp. rubra*	'Chewing's' fescue	17.0
	Festuca roemeri	'Roemer's' fescue	
	Festuca rubra 'Molate'	'Molate' creeping red fescue	
Group 3	*Lupinus bicolor**	Miniature lupine	5.0
	Lupinus sericeous	Silky lupine	
Group 4	*Anaphalis margaritacea**	Pearly everlasting	0.50
	Eriogon speciosus	Showy fleabane	
Group 5	*Achillea millefolium*	Common yarrow	0.50
Group 6	*Trifolium incarnatum*	Crimson clover	2.0
Group 7	*Eschscholzia californica*	California poppy	5.5
Group 8	*Gaillardia aristata*	Blanket flower	6.0
	Hordeum brachyantherum	Meadow barley	
Group 9	*Linum Lewisii**	Lewis flax	9.5
	*Eriogonum heracleoides**	Parsnipflower	
	Gilia capitata	Bluehead gilia	
	Eriogonium umbellatum	Sulphur flower	
Group 10	*Penstemon erianthurus**	Fuzzytongue penstemon	7.0
	*Prunella vulgaris L. ssp. Lanceolata**	Selfheal	
	Penstemon strictus	Rocky Mountain penstemon	
	Penstemon venustus	Venus penstemon	
	TOTAL		**55**

Instructions for using the seed choice chart:
The contractor shall choose a minimum of one seed type from each seed group 1 through 10 to meet the required pounds of pure live seed (PLS) for that group. The contractor may choose more than one seed type from each group to meet the total pounds of pure live seed. The seed type with an asterisk (*) represents the preferred seed choice for that group.

The contractor shall furnish a type 1 working drawing per WSDOT standard specification 1-05.3 for informational purposes showing the seed types with number of pounds of PLS/acre.

Construction Requirements

Section 8-02.3 is supplemented with the following:

(******)
Extension of Planting Period
For planting areas where soil is saturated during the Contract planting period or where bioengineering must be installed outside the planting period, the Contractor may request an extension of the planting period until a time when the conditions have improved. The Contractor must submit a written request to the Engineer a minimum of 10 working days prior to the end of the Contract planting period. The request must indicate the following:

1. Planting areas included in proposal
2. Method of storage for plant material and cuttings

3. Time for planting
4. Supplementary measures to ensure plant survival

The Engineer will only approve the extension for planting areas where saturated soil prevents planting during the Contract planting period or where bioengineering must be installed for slope stabilization and erosion control outside of the planting period. Only additional costs for storage of plant material and remobilization are included in this item.

An extension of planting period waives only the planting timing for the selected planting areas. All other Provisions shall continue to apply.

The contractor shall install a temporary irrigation system if plant materials are planted outside of the planting window.

Weed and Pest Control

Roadside Seeding, Planting and Lawn Area Weed Control

Section 8-02.3(3)B is supplemented with the following:

(NWR September 12, 2019)
The Contracting Agency has estimated the planting areas to be approximately 1.4 acres.

This quantity is listed only for the convenience of the Contractor in determining the extent of the Work involved.

Topsoil

Section 8-02.3(4) is supplemented with the following:

(NWR September 12, 2019)
The Contractor shall notify the Engineer a minimum of 14 calendar days prior to topsoil placement.

Approval and Acceptance
The Contractor shall submit a sample of the topsoil and the proposed method of incorporation to the Engineer for approval a minimum of 14 calendar days prior to beginning placement. Acceptance samples shall be obtained at the point of delivery.

The Contractor shall place topsoil to a reasonable, even, grade without localized low areas which will hold water.

Roadside Seeding, Lawn and Planting Area Preparation

Section 8-02.3(5) is supplemented with the following:

(NWR June 23, 2021)
Soil Decompaction

For the locations designated in the Plans, the Contractor shall uniformly decompact the soil to a depth of 18 inches such that a soil penetrometer can be inserted to a minimum depth of 12 inches with no more than 200 PSI of pressure using a 1/2 inch tip. Soil decompaction operations shall be scheduled between April 1 and September 30.

The Contractor shall notify the Engineer a minimum of five working days prior to the start of soil decompaction work.

The Contractor shall select a soil decompaction method that has the ability to fracture and shatter compacted soil to the specified depth with uniformity and without negative consequences to the soil structure in three or fewer passes.

The soil decompaction will be accepted by the Engineer based on a field inspection of soil penetration measurements within the designated soil decompaction area. The Engineer will select random locations to measure soil decompaction using a soil penetrometer. Acceptance is based upon at least 75% of the soil decompaction readings meeting the PSI requirements.

Following soil decompaction operations, the area shall be graded smooth and protected from construction activities except for those requiring planting, seeding or sodding.

Soil amendment, compost and topsoil placement shall not proceed until the Engineer has accepted the soil decompaction.

Planting

Section 8-02.3(8) is supplemented with the following:

(February 25, 2013)
When work requiring disturbance within planting area(s) *** of the Project *** is complete, the Contractor shall perform planting work within the next available planting window.

Mulch

Section 8-02.3(11) is supplemented with the following:

(April 2, 2012)
Bark mulch or wood chip mulch shall be placed to a uniform non-compacted depth of 3” over all planting areas.

Bark or wood chip mulch shall not be placed in areas of standing or flowing water.

Bioengineering

Brush Mattress

(******)
Section 8-02.3(15)B is supplemented with the following:

Description
Sediment Filled Coir Bags shall be used to reinforce the soil lift transition brush mattress.

Construction Requirements
Sediment Filled Coir Bags shall be filled with Streambed Sediment to approximately 80% full. Bags shall be installed in a single row at the toe of slope below the soil lift transition brush mattress. Bags shall overlap approximately 6 inches for stability. It is estimated that 4 Sediment Filled Coir Bags shall be required.

Materials
Materials for Sediment Filled Coir Bags shall meet the following requirements:

Coir Bags
Coir bags shall be of an organic material made of natural plant fibers and of sufficient strength to contain streambed sediment without failure or leakage.

Streambed Sediment
Streambed sediment shall meet the requirements of Section 9-03.11(1).

Payment
Payment will be made in accordance with Section 1-04.1 for the following:

"Sediment Filled Coir Bags", Lump Sum.

The lump sum contract price for "Sediment Filled Coir Bags" shall be full pay for the Work as specified and shown in the plans, including materials, tools, and labor used to fill and install the Sediment Filled Coir Bags.

(******)

Compost Seeding

The Compost Seeding shall meet the following requirements:

Seeding

Wet Native Seed
All wet native seed shall be "non-endophyte enhanced." Seed of the following composition and proportion shall be applied at a rate of 20 pounds per acre on all areas requiring wet native seeding within the project:

Kind and Variety of Seed in Mixture	Pounds of Pure Live Seed Per Acre
Western manna grass (Glyceria occidentalis)	12.0
Rice cutgrass (Leersia oryzoides)	2.0
Canada reed (Calamagrostis canadensis)	2.0

Spike bentgrass (Agrostis exarata)	3.0
Wool-grass (Scirpus cyperinus)	1.0
TOTAL	20.0

All seed shall be certified in accordance with WAC 16-302 and meet the following requirements:

Prohibited Weed 0% max.
Noxious Weed 0% max.
Other Weed 0.20% max.
Other Crop 0.40% max.

Mulch

Mulch for Compost Seeding shall be Fine Compost in accordance with Section 9-14.4(8).

Construction Requirement

For seeding applied by compost seeding, the Contractor shall use equipment equipped with a computer-calibrated seed injection system to apply a mixture of seed and compost. The device shall have an operating and feed capacity sufficient to uniformly mix and apply the specified compost and seed.

Prior to application of the compost and seed, the Contractor shall ensure that the equipment has been properly calibrated to apply the specified amount of seed. Seeded Compost shall be placed in one application to the depth shown in the plans.

This Work consists of installation and establishment of compost seeding applied by pneumatic blower.

Measurement

Compost Seeding will be measured per square yard along the ground slope line of surface area.

Payment

"Compost Seeding", per square yard.

The unit Contract price per acre for "Compost Seeding" shall be full pay for all costs for the specified Work.

COIR WRAPPED SOIL LIFTS

(******)

Description

This work consists of constructing coir wrapped soil lifts for the SR 544 Nooksack River Overflow Emergency Repair project.

Materials

Materials for soil lifts shall meet the following requirements:

Components of Coir Wrapped Soil Lifts

Inner Fabric for Coir Wrapped Soil Lifts

Inner fabric for coir wrapped soil lifts shall be Rolanka BioD-OCF 30, North American Green C125BN or an approved equal made from 100 percent biodegradable coconut fiber (coir) stitched between two biodegradeable jute nets. The minimum weight of the inner fabric shall be 8 ounces per square yard as determined by ASTM D6475, D6566, D3776 or D3776M. The inner fabric shall be a minimum of 0.25 inches thick as determined by ASTM D6525, D6525M or D1777 and the tensile strength shall be a minimum of 125 lbs./ft. as determined by ASTM D6818.

Outer Fabric for Coir Wrapped Soil Lifts

Outer fabric for coir wrapped soil lifts shall be Rolanka BioD-Mat 90, Belton Geocoir 900 or an approved equal made from 100 percent biodegradable coconut fiber strands (coir) uniformly twisted and woven into a flexible fabric. The minimum weight of the outer fabric shall be 20 ounces per square yard as determined by ASTM D6475 or D3776. The outer fabric shall be a minimum of 0.30 inches thick as determined by ASTM D6525 or D1777 and the wet tensile strength shall be a minimum of 1200 lbs./ft. in the machine direction and 450 lb/ft in the cross (transverse) direction as determined by ASTM D6818.

Topsoil Type A

Topsoil for coir wrapped soil lifts shall meet the requirements of Section 9-14.2(1) Topsoil Type A**.**

Borrow

Borrow shall meet the requirements of Section 3-03.3(13).

Coir Wrapped Soil Lift Plant Material

Coir wrapped soil lift plant material shall meet the requirements of Section 9-14.7.

Coir wrapped soil lift plant material species and percentages:

Species:	Live Stake/No. 1 Cont.	Percentages:
Cornus sericea	Live Stake	15%
Salix sitchensis	Live Stake	15%
Physocarpus capitatus	Live Stake	25%
Lonicera involucrata	Live Stake	25%
Carex obnupta	No. 1 Cont. or Bareroot	10%
Juncus effusus	No. 1 Cont. or Bareroot	10%

Sand Bags

Sand

Sand for sand bags shall conform to the requirements of Section 9-03.13 Backfill for Sand Drains.

Prefabricated Sandbags
Sandbags shall be of an organic material made of natural plant fibers and of sufficient strength to contain the sand without failure or leakage.

Wood Stakes
Wood stakes shall be a minimum dimension of 2 inches x 2 inches, in sound condition, with no evidence of rot, checking, or other damage which may reduce the strength or durability of the wood stake. They shall have wedge-shaped points on the end to allow them to be driven into the soil to a minimum depth of 12 inches.

Source of Material
The Contractor shall submit the source of materials for coir wrapped soil lift items to the Engineer for acceptance at least 10 working days prior to use.

Construction Requirements

Rock Foundation for Coir Wrapped Soil Lifts
The Contractor shall prepare the ground surface and construct the foundation for the coir wrapped soil lifts using a combination of Streambed Cobble 8 In. and Streambed Sediment as shown in the Plans. When installing the Cobble and Sediment combination, the Contractor shall ensure that the top surface of the foundation is sufficiently smooth and even to allow placement of the coir fabric without damage to the fabric or excessive stretching of the fabric.

Soil Lifts
The Contractor shall prepare the ground and install the components of the coir wrapped soil lifts as described below and as shown in the Plans.

1. For each coir wrapped soil lift, the Contractor shall place a continuous section of the outer layer of coir fabric with an inner layer of coir fabric on top. Seams between the inner layer of coir fabric pieces shall be located midway between the outer layer of coir fabric seams. Within each section, the overlap shall be oriented to face downstream. Secure each overlapped section with wood stakes a maximum of 3 feet on-center spacing per section.
2. The Contractor shall place sand bags at the face of the coir wrapped soil lift, backfill with Topsoil Type A in 6 inch lifts to the depths shown in the Plans and lightly water the soil layer. The Contractor shall compact the soil layer to eliminate voids.
3. The Contractor shall wrap the soil lift fabrics over the sandbag/topsoil layer to enclose the topsoil. The rear edge of the fabrics shall be folded back a minimum of 18-inches and anchored with wood stakes at a maximum of 3 feet on-center stake spacing.
4. The Contractor shall start and end coir wrapped soil lifts with a transition into the stream bank, as shown in the Plans. Coir wrapped soil lifts shall meet and match the grade and slope of adjacent areas with topsoil type A, and shall be tapered to provide a smooth transition between soil lift areas without abrupt changes in grade. All ends of coir wrapped soil lifts shall have the coir material folded and tucked as shown in the Soil Lift End Transition Detail.
5. Following compaction and anchoring of each wrapped soil lift, for the area between each coir wrapped soil lift, the Contractor shall place a 4” layer of

Topsoil Type A, install container plant material, bareroot and/or live stake cuttings, and place a second layer of Topsoil type A as shown in the Plans, and lightly tamp. The Contractor shall install cuttings so that ¾ of the length of each cutting is fully covered with Topsoil Type A.

6. After completion of each lift the Contractor shall apply water at a rate sufficient to saturate the entire depth of each coir wrapped soil lift without running off the surface.
7. Following installation, the Contractor shall provide and apply water to establish the plantings.
8. Plant replacement for the coir wrapped soil lifts will be required for each section void of live shoots for a continuous distance of 5 feet or more. Replacement will occur 3 months after soil lift completion and prior to the end of the plant establishment period. Weed control will be required on the soil lifts for the duration of the plant establishment period per section 8.02.3(13).

Measurement

Coir wrapped soil lifts will be measured per linear foot along the groundline of the completed installation.

Payment

Payment will be made in accordance with Section 1-04.1 for the following:

"Coir Wrapped Soil Lifts", per linear foot.

The unit contract price per linear foot for "Coir Wrapped Soil Lifts" shall be full pay for all labor, tools and materials specified to construct the Coir Wrapped Soil Lift Bank Protection.

Measurement

Section 8-02.4 is supplemented with the following:

(NWR June 23, 2021)

Soil decompaction will be measured by the square yard along the ground slope line of surface area decompacted and accepted.

Payment

Section 8-02.5 is supplemented with the following:

(NWR September 12, 2019)

"Topsoil Type A", per square yard.

The unit Contract price for "Topsoil Type A", per square yard shall be full payment for all costs for the specified Work.

(******)

"Soil Decompaction", per square yard.

The unit Contract price for "Soil Decompaction" per square yard shall be full payment for performing the Work as specified.

Chain Link, Wire, and Cable Fence

Materials

Section 8-12.2 is supplemented with the following:

(September 8, 2020)
Coated Chain Link Fence
Chain link fence fabric shall be hot-dip galvanized with a minimum of 0.8 ounce per square foot of surface area.

Fencing materials shall be coated with an ultraviolet-insensitive plastic or other inert material at least 2 mils in thickness. Any pretreatment or coating shall be applied in accordance with the manufacturer's written instructions. The Contractor shall provide the Engineer with the manufacturer's written specifications detailing the product and method of fabrication. The color shall match SAE AMS Standard 595 color number *** 17038 ***.

Samples of the coated fencing materials shall have received the Engineer's acceptance prior to installation on the project.

The Contractor shall supply the Engineer with 10 aerosol spray cans containing a minimum of 14 ounces each of paint of the color specified above. The touch-up paint shall be compatible with the coating system used.

Payment

Section 8-12.5 is supplemented with the following:

(September 2, 2025)
"Coated Chain Link Fence Type ___", per linear foot.
Payment for clearing of fence line for "Coated Chain Link Fence Type ___" shall be in accordance with Section 3-01.5.
"Coated End, Gate, Corner, Pull Post for Chain Link Fence", per each.
"Double 14 Ft. Coated Chain Link Gate", per each.
"Double 20 Ft. Coated Chain Link Gate", per each.
"Single 6 Ft. Coated Chain Link Gate", per each.

Permanent Signing

Materials

Roadside Sign Structures
Section 9-06.16 is supplemented with the following:

(January 3, 2011)
Perforated Steel Square Sign Post System
Where noted in the Plans, steel sign post systems shall be square, pre-punched galvanized steel tubing, that are NCHRP 350 Test Level 3 Certified and FHWA approved. The steel sign post system shall include all anchor sleeves, and other hardware required for a complete sign installation.

System Acceptance
Systems listed in the current QPL will be accepted per the QPL approval code. Systems not listed in the QPL will be accepted based on a Supplier's Certificate of Compliance. The Supplier's Certificate of Compliance will be a contract specific letter from the supplier stating the system is NCHRP 350 Test Level 3 compliant.

Sign Support Structures

Section 9-28.14 is supplemented with the following:

(September 8, 2020)
Manufacturers for Steel Roadside Sign Supports
The Standard Plans lists several steel sign support types. These supports are patented devices and many are sole-source. All of the sign support types listed below are acceptable when shown in the Plans.

Steel Sign Support Type	Manufacturer
Type TP-A & TP-B	Transpo Industries, Inc.
Type PL, PL-T & PL-U	Northwest Pipe Co.
Type AS	Transpo Industries, Inc.
Type AP	Transpo Industries, Inc.
Type ST 1, ST 2, ST 3, & ST 4	Ultimate Highway Solutions, Inc., Allied Tube & Conduit Corp. (Mechanical Division), Trinity Highway Products, LLC.
Type SB-1, SB-2, & SB-3	Ultimate Highway Solutions, Inc., Xcessories Squared Development and Manufacturing Incorporated, Trinity Highway Products, LLC.

Rock and Gravity Block Wall and Gabion Cribbing

Materials

Section 8-24.2 is supplemented with the following:

(November 2, 2022)
Gravity Block Wall
Gravity block wall blocks shall be rectangular prisms with dimensions 2'-5 ½" by 2'-5 ½" by 4'-11", except for special blocks which shall be as dimensioned in the Plans. All dimensions shall be ± ½ ".

Except as otherwise specified, gravity block wall blocks will be accepted by the Engineer based on visual inspection only, with no minimum compressive strength and no air content requirements for the concrete used in the block.

Gravity block wall blocks for permanent walls of heights greater than six feet and less than 15 feet shall be cast with Class 3000 concrete, conforming to the air content requirements of Section 6-02.3(2)A. Commercial concrete shall not be used. Gravity block wall blocks for permanent walls of these heights will be accepted based on visual inspection, and conformance to Section 6-02.3(9) and the specified concrete strength and air content requirements.

Construction Requirements

Gravity Block Wall

Section 8-24.3(2) is supplemented with the following:

(September 2, 2025)
Definitions
Temporary Gravity Block Wall: A gravity block wall that is constructed and removed under the same contract. Temporary gravity block walls shall not exceed ten feet in height, measured from the bottom of the bottom row of blocks to the top of the highest block.

Permanent Gravity Block Wall: A gravity block wall that remains in place after the conclusion of the contract under which the gravity block wall was constructed. Permanent gravity block walls shall not exceed 15 feet in height, measured from the bottom of the bottom row of blocks to the top of the highest block.

Submittals
The Contractor shall submit working drawings of the gravity block wall to the Engineer for approval in accordance with Section 6-01.9. The working drawings shall include, but not be limited to, the following:

1. Plan, elevation, and section views of the wall, showing the layout, batter, and orientation of the blocks.

2. Dimensions and details of the blocks, including details and locations of block erection lifting loops and inserts, and the features designed to interlock blocks together if the blocks have such features.

3. Method and equipment used to erect the blocks.

4. Erection sequence.

The Contractor shall not begin fabricating gravity block wall blocks until receiving the Engineer's approval of the working drawing submittal.

Gravity Block Wall Erection
After excavating for the wall base, the Contractor shall grade the excavation for a width equal to or exceeding the width of the bottom row of blocks. The base shall be graded to the base elevation shown in the Plans and working drawings as approved by the Engineer, and shall accommodate the batter of the bottom row of blocks.

The Contractor shall erect the gravity block wall and place the backfill in accordance with the erection sequence as approved by the Engineer. The top of the gravity block

wall shall be within two inches of the line and grade shown in the Plans. The backfill shall be compacted in accordance with Section 3-03.3(14)C, Method C.

The Contractor shall repair all large blemishes, honeycombed areas, and chipped surfaces, (25 square inches and larger) on the exposed face of the erected wall using methods and materials as approved by the Engineer.

Streams, Rivers, and Waterbodies

Construction Requirements

Streambed Aggregates

Blending of Streambed Aggregates

Section 8-30.3(3)A is supplemented with the following:

(February 13, 2024)
Blending Streambed Aggregates
Streambed aggregates shall be mixed in the following proportions:

***

Coir Wrapped Soil Lifts Section

Streambed Sediment:	30%, by volume
Streambed Cobbles 8 In.:	70%, by volume

***

Description

Section 8-30.1 is supplemented with the following.

(******)
This work shall consist of installing custom filter rock as shown in the Plans.

Materials

Section 8-30.2 is supplemented with the following:

(******)

Custom Filter Rock	9-14.07

Material Acceptance

Custom Filter Rock shall be visually accepted by the Engineer. The Engineer shall determine the Suitable Shape, Approximate Size, and Grading of the load before it is placed. If so ordered by the Engineer, the loads shall be dumped on a flat surface for sorting and measuring the individual rocks contained in the load. The Engineer reserves the right to reject rock at the quarry, at the job site or stockpile, and in-place in the structures throughout the duration of the Contract. Rock rejected at the job site shall be removed from the project site. Rock rejected at the quarry shall be prevented from mixing with satisfactory rock.

Measurement

Section 8-30.4 is supplemented with the following:

(******)

Custom Filter Rock will be measured by the ton of rock actually placed.

Payment

Section 8-30.5 is supplemented with the following:

(******)

"Custom Filter Rock", per ton.

The unit Contract price per ton for "Custom Filter Rock" shall be full payment for all costs to perform the Work.

(August 6, 2018)
Environmental Compliance

Description

It is the Contractor's responsibility to conduct and perform all Work in accordance with Environmental Regulations, Environmental Commitments, permits, and Plans that the Work is subject to. The Environmental Compliance Lead (ECL) shall be the Contractor's representative that is responsible for management of the Contractor's environmental compliance.

Construction Requirements

Environmental Compliance Lead (ECL)

The Contractor shall designate a primary ECL and an alternate ECL to perform the duties of the ECL. The Contractor shall provide the Engineer with a copy of the formal assignment in writing prior to the start of construction. The Contractor's superintendent and/or foreman cannot be designated as the primary or alternate ECL.

The ECL shall represent all Contractor work actions for the project, regardless of whether the work is performed by the Contractor or one of the subcontractors. The ECL shall have the authority to direct work to expeditiously correct any environmental compliance deficiency and coordinate these measures with the Engineer, and to order the Contractor's on-site personnel to stop work that is not being performed in compliance with the permits.

The ECL shall be on-site during all work activities unless otherwise approved by the Engineer. The Contractor shall maintain 24-hour telephone numbers at which the Contractor's designated ECL can be contacted and be available upon the Engineer's request during other than normal working hours. ECL and alternate(s) shall be listed on the Emergency Contact List required under Section 1-05.13(1).

The ECLs shall have, for the life of the Contract, a current Certificate of Training in Construction Site Erosion and Sediment Control (CESCL) from a course approved by the Washington State Department of Ecology.

The primary responsibilities of the ECL are to assist the Contractor's superintendent in planning and scheduling work activities to achieve environmental compliance; and be present on-site to observe work activities and resolve environmental compliance issues as they may develop.

The duties of the ECL shall also include the following requirements:

- Erosion and Sediment Control (ESC) Lead, Section 8-01.3(1)B,
- Updating the Spill Prevention, Control and Countermeasures Plan, Section 1-07.15(1),
- Attending the preconstruction conference (ECL and alternates),
- Evaluation of the Contractor's work operations and schedule in regard to environmental risks,
- Providing advanced notification to the Engineer of work activities that may create environmental compliance concerns.

Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

"Environmental Compliance Lead", lump sum.
The lump sum Contract price for "Environmental Compliance Lead" shall be full payment for all costs for the Work. When the proposal includes an item for Environmental Compliance Lead all costs for ESC Lead in Section 8-01 shall be included in the lump sum price.

Division 9
Materials

Section 9-13.2 is supplemented with the following:

(******)

Custom Filter Rock

Custom filter rock material shall be free draining, free from organic and deleterious material, and substantially free of shale and other soft, poor durability particles. The material shall not contain recycled materials, including but not limited to: glass, shredded tires, Portland cement concrete rubble, and asphalt concrete rubble.

Custom filter rock shall meet the following requirements:

Property	Test Method	Allowable Test Value
Los Angeles Wear, 500 Rev.	AASHTO T 96	50% maximum
Degradation Factor	WSDOT Test Method No. 113	15 minimum
Specific Gravity, SSD	AASHTO T 85	2.55 minimum

Custom filter rock shall meet the following minimum requirements:

Custom Filter Gradation Range (in.)				
	Range (in.)	*Min (in.)*	*Average (in.)*	*Max (in.)*
D100	4.0 - 7.0	4.0	5.5	7.0
D60	2.3 – 4.0	2.3	3.2	4.0
D50	2.2 - 3.2	2.2	2.7	3.2
D10	0.5 - 0.6	0.5	0.6	0.6

All percentages are by weight.

Description

Section 9-14.7(2) is supplemented with the following:

(******)

Inspection and Condition of Potted Conifers

Container grown conifers and conifers delivered to the site in pots, regardless of size, shall be inspected by the Engineer by removing as much soil as necessary from the top of the container to locate the root flare and crown of the root ball. Acceptable stock shall have a root flare and initial structural roots that grow laterally outward and down, away from the main stem of the tree. Trees with roots or a root flare growing at an angle toward the stem or base of the tree shall not be accepted. Roots and root crowns found to contain girdling, or circling, roots shall not be accepted.

Appendices
(January 2, 2012)

The following appendices are attached and made a part of this contract:

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APPENDIX A:
Asbestos Good Faith Investigation, Page 1 through Page 76.

APPENDIX B:
Summary of Geotechnical Conditions, Page 1 through Page 5.

APPENDIX C:
Department of the Army Nationwide Permit 14, Page 1 through Page 46.

APPENDIX D:
NPDES Construction Stormwater General Permit, Page 1 through Page 70.

APPENDIX E:
NPDES Construction Stormwater General Permit Transfer of Coverage Form, Page 1 through Page 7.

APPENDIX F:
Department of Fish and Wildlife Hydraulic Project Approval, Page 1 through Page 8.

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APPENDIX A

Asbestos Good Faith Investigation

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Hazardous Materials Survey Report

SR 544 Nooksack River Overflow Culvert – ER Permanent Repair

Work Order # XL6549



Prepared For
Washington State Department of Transportation
Northwest Region Environmental Services

Project Number:	2022-0806-31
Inspection Date:	January 31 and February 1, 2024
Report Date:	March 19, 2024
Inspected By	Tanveer Khan / Cameron Patterson / Jaren Hutchings
AHERA Certification	# 189935 / # 192135 / # 192193
Certification Expiration Date	June 22, 2024 / December 27, 2024 / January 11, 2025

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A Sample Locations (Vicinity Map Location Plan) and Photographs

B Laboratory Analysis Results

C AHERA Certifications & Laboratory Qualifications

NVL Laboratories, Inc.
4708 Aurora Ave N
Seattle, WA 98103
Phone (206) 547-0100 • Fax (206) 634-1936

1.0 SUMMARY OF FINDINGS

The following is a Hazardous Materials survey for asbestos and lead containing paint conducted by NVL Laboratories for WSDOT project SR 544 Nooksack River Overflow Culvert – ER Permanent Repair. The survey area included State Route (SR) 544 Mile Post (MP) 7.57 – 7.70, Bridge # 544/10 & Bridge # 544/9C.

A total of 36 bulk samples of building/structure materials were collected from SR 544 Mile Post MP 7.57 – 7.70, Bridge # 544/10 & Bridge # 544/9C, and analyzed for asbestos-containing material (ACM). ACM means any material containing more than one percent (1%) asbestos as determined by Polarized Light Microscopy (PLM) with dispersion staining, commonly referred to as EPA Method 600/R-93/116. There were **no asbestos-containing building materials** identified during this inspection.

A total of 4 paint samples of building/structure materials were collected from SR 544 Mile Post MP 7.57 – 7.70, Bridge # 544/10 & Bridge # 544/9C, and analyzed for the presence of inorganic lead using inductively coupled plasma (ICP) in accordance with EPA 3051/6010D. This method reports results in milligrams per kilogram (mg/kg) or its equivalent, parts per million (ppm). Lead was detected in the following locations:

Sample Number	Material Description	Location	Lead in mg/kg	Lead in %
2022-0806-31-Pb-2	Yellow lane marking	Bridge # 544/10	80.0	0.08
2022-0806-31-Pb-4	Yellow lane marking	Bridge # 544/9C	110.0	0.11

A total of 2 representative composite Toxicity Characteristic Leaching Procedure (TCLP) samples for lead was collected from SR 544 Mile Post MP 7.57 – 7.70, Bridge # 544/10 & Bridge # 544/9C, and analyzed according to ASTM Standard E 1908-97, as suggested by the Washington State Department of Ecology. Waste Characterization Plan number three of this standard, “Composite Sample and Demolish", was used to assess the lead (Pb) content of the total debris. The TCLP samples were analyzed for the presence of inorganic lead using inductively coupled plasma (ICP) in accordance with EPA 3051/6010D. This method reports results in milligrams per kilogram (mg/L) or its equivalent, parts per million (ppm).

TCLP samples are **below** the dangerous waste threshold of 5.0 ppm for lead. Thus, the solid waste stream of the demolition debris from these structures is considered as regular demolition debris.

2.0 INTRODUCTION & SCOPE OF WORK

A Hazardous Materials survey for asbestos and lead containing paint was conducted at SR 544 Mile Post MP 7.57 – 7.70, Bridge # 544/10 & Bridge # 544/9C on January 31 & February 1, 2024. This limited hazardous building/structure materials survey identifies asbestos containing materials and lead containing paint that will be impacted by the improvements during the SR 544 Nooksack River Overflow Culvert – ER Permanent Repair project.

A plan indicating location of samples and pictures of samples collected by NVL AHERA Certified Building Inspectors are included in this report. Assigned inspector certificates and lab accreditations are also included in this report.

Tanveer Khan (AHERA Certified Building Inspector / WA-Commerce Certified Risk Assessor), and Cameron Patterson (AHERA Certified Building Inspector / WA-Commerce Certified Lead Paid Inspector) and Jaren Hutchings (AHERA Certified Building Inspector) conducted this survey at the request of WSDOT.

2.0 INTRODUCTION & SCOPE OF WORK (continued)

The SR 544 Nooksack River Overflow Culvert – ER Permanent Repair project proposes to replace the existing structure 544/9C located on SR 544 at milepost 7.62. This emergency project will remove the existing 135 foot-long, 74-foot-wide arch culvert and expand the existing Nooksack Bridge 220 feet to encompass the existing Nooksack overflow culvert to restore and protect remaining facilities at this location.

The purpose of this survey was to identify suspect asbestos containing structure materials, and lead paint coatings which would be impacted prior to the planned renovation/demolition of the bridge / road materials only in support of the project and is limited to as such. This limited hazardous materials survey includes all accessible structural materials or materials within the structures that are impacted by the project. This includes various concrete, patching, grouting, and expansion joint materials. No soft/limited or destructive demolition was performed during this inspection. This inspection constitutes a survey of all accessible suspect asbestos containing structure materials and lead containing paint coatings in the project area as described in the scope of work.

This survey was conducted in accordance with The National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 Code of Federal Regulations (CFR) Part 61, Subpart M which requires a survey performed by an accredited asbestos inspector prior to renovation or demolition of a structure.

This survey was conducted in accordance with ASTM E-2356-18, Standard Practice for Comprehensive Building Asbestos Surveys, Section 4.2.3, a walk-through inspection of all accessible areas of this structure was performed to identify potential asbestos-containing materials. The walk-through inspection included a review of the internal and external aspects of this structure that will be impacted by the current scope of work and are considered to be described by ASTM E-2356-18, as a pre-construction survey that is performed prior to renovation or demolition.

All asbestos sampling performed complies with the AHERA asbestos sampling procedure as stated in 40 CFR 763.86. This sampling protocol is required under the Northwest Clean Air Agency (NWCAA) Section 570, for all asbestos surveys prior to a building demolition or renovation.

This asbestos survey also satisfies the requirements for “Good Faith” inspection outlined in Washington Administrative Code (WAC) 296-62-07721(2)(b)(ii), identification, which requires the building owner or building owner’s agent to provide contractors with a written report identifying the asbestos containing for this Project.

This asbestos survey satisfies the requirements of the DOT Environmental Manual Chapter 447.04(4).

Recommendations have been included for compliance with WAC 296-155-176, “Lead in Construction”. The Lead in Construction regulations are designed to protect workers from lead hazards during construction, renovation, and demolition activities.

The TCLP sample collected comply with the Washington State Department of Ecology WAC 173-303- 110.

Photographs and a vicinity map location plan indicating the specific locations of samples collected by NVL personnel have been included in **Appendix A**.

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Seattle, WA 98103
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3.0 STRUCTURE DESCRIPTION

SR 544 (MP 7.57 – 7.70)

Year of Construction	Unknown
Approximate surveyed length	0.13 miles

Bridge # 544/10

Year of Construction	1994
Approximate square footage	7,210 ft^2

Bridge # 544/9C

Year of Construction	1994
Approximate square footage	5,250 ft^2

4.0 INSPECTION METHOD

Asbestos Inspection Sampling Method

The NVL Labs field inspectors are Asbestos Building Inspector, certified under the requirements of the United States Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA) regulation 40 CFR 763, Subpart E. Copies of these certificates are provided in this report in **Appendix C.**

A walk-through inspection of all accessible areas of this structure work area was performed to identify potential asbestos-containing materials. The walk-through inspection included a thorough visual inspection of all structures and the components within the structure that will be impacted by the current scope of work as required by AHERA sampling requirements. As noted in the NVL sampling plan, a minimum of two samples were collected for each suspect material for each homogeneous area (e.g. two samples per concrete, per asphalt patch, per expansion joint material, per grout, etc.)

Sample location was limited to accessible friable and non-friable suspected asbestos containing materials (ACMs) which are proposed to be impacted by the scope of work that can be reached by hand or with a small ladder. The locations and types of potential asbestos-containing materials are noted in the findings section.

NVL Labs collected samples and obtained analytical data for suspect asbestos-containing materials identified in the structure. Once collected, each bulk sample was sealed in an unadulterated plastic bag to eliminate the possibility of cross-contamination. “Chain-of-Custody” tracking was followed to maintain sample integrity during handling and data reporting at NVL Labs. Copies of laboratory reports and field data forms for asbestos are included in **Appendix B.**

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4.0 INSPECTION METHOD (continued)

Lead Inspection Method

NVL Labs collected representative samples of paint from the various exterior areas of the structure within the project scope. Sample location was limited to accessible, bridge materials which are proposed to be impacted by the scope of work. Once collected, each bulk sample was sealed in an unadulterated plastic bag to eliminate the possibility of cross-contamination. "Chain-of-Custody" tracking was followed to maintain sample integrity during handling and data reporting at NVL Labs. Sampling was representative of all layers of paint. Copies of laboratory reports and field data forms for lead paint are included in this report in **Appendix B.**

TCLP Sampling Method

A representative composite sample of the proportionate components which make up the areas to be removed or demolished was collected and analyzed according to ASTM Standard. E 1908-97, as suggested by the Washington State Department of Ecology. Waste Characterization Plan number three of this standard, "Composite Sample and Demolish", was used to access the lead (Pb) content of the total debris. Copies of laboratory reports and field data forms for lead TCLP testing are included in this report in **Appendix B.**

5.0 LABORATORY INFORMATION

Laboratory Analysis: Asbestos

Once the samples have been collected, they must be analyzed by an accredited laboratory. In accordance with 40 CFR Chapter 1, Part 763, Subpart E, Appendix E. All asbestos samples are analyzed at NVL Labs using Polarized Light Microscopy (PLM) with dispersion staining, commonly referred to as EPA Method 600/R-93/116 with the following measurement uncertainties for reported % asbestos: 1%=0-3%, 5%≥1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%.

If samples are not homogeneous, then sub-samples of the components are analyzed separately. Findings for samples containing more than one separable layer of materials are reported for each layer. The asbestos concentration in the sample is determined by visual estimation. Only materials containing more than 1% total asbestos were classified as "asbestos-containing" based on EPA, state, and local regulations.

NVL Labs is accredited by the National Institute of Standards and Technology (NIST) under the National Volunteer Laboratory Accreditation Program (NVLAP) program for bulk asbestos fiber analysis; *NVLAP Lab Code 102063-0*

Laboratory Analysis: Lead (Pb)

Samples are analyzed for the presence of inorganic lead using inductively coupled plasma (ICP) in accordance with EPA 3051/6010D. This method reports results in milligrams per kilogram (mg/kg) or its equivalent, parts per million (ppm).

5.0 LABORATORY INFORMATION (continued)

Laboratory Analysis: TCLP (Pb)

Samples are prepared following protocol outlined in ASTM Standard. E 1908-97 and analyzed using inductively coupled plasma (ICP) in accordance with EPA 3051/6010D. This method reports results in milligrams per kilogram (mg/kg) or its equivalent, parts per million (ppm).

Laboratory Accreditation

Professional accreditations for NVL Laboratories, Inc. include the following:

NVL Laboratories, Inc. is currently accredited by the National Institute of Standards and Technology (NIST) under the National Volunteer Laboratory Accreditation Program (NVLAP) program for bulk asbestos fiber analysis.

NVLAP Lab Code 102063-0

NVL Laboratories, Inc. is approved by the American Industrial Hygiene Association (AIHA) Asbestos Analysts Registry (AAR) program for airborne asbestos fiber analysis.

AAR Counter ID 7412

NVL Laboratories, Inc. is currently accredited by the American Industrial Hygiene Association (AIHA) under the Industrial Hygiene Laboratory Accreditation Program (IHLAP). The IHLAP program is designed specifically for laboratories involved in analyzing samples to evaluate workplace exposure.

IHLAP Certification Number 563

NVL Laboratories is currently accredited by the American Industrial Hygiene Association (AIHA) under the Industrial Hygiene and Environmental Lead Program.

IHLAP Certification Number: 101861

All Laboratory Qualifications & Certifications are included in **Appendix C.**

6.0 FINDINGS

Non-Asbestos-Containing Materials

The following structure materials were sampled by NVL as part of this project and do not contain asbestos:

Bridge # 544/10

Sample Number	Material Description by Layer	Location	Asbestos	Quantity **	Friable*
2022-0806-31-3-1	Concrete	Bridge deck	ND		
2022-0806-31-3-2	Concrete		ND		
2022-0806-31-3-3	Black rubber	Expansion joint	ND		
2022-0806-31-3-4	Black rubber		ND		
2022-0806-31-3-5	White marking	Bridge deck – lane markings	ND		
2022-0806-31-3-6	White marking		ND		
2022-0806-31-3-7	Yellow marking	Bridge deck – lane markings	ND		
2022-0806-31-3-8	1: Yellow marking 2: Concrete		1: ND 2: ND		
2022-0806-31-3-9	1: Black sealant 2: Concrete	Bridge deck – reflector sealant	1: ND 2: ND		
2022-0806-31-3-10	1: Black sealant 2: Concrete		1: ND 2: ND		
2022-0806-31-3-11	Concrete	Bridge – support piers	ND		
2022-0806-31-3-12	Concrete		ND		
2022-0806-31-3-13	Concrete	Bridge – girders	ND		
2022-0806-31-3-14	Concrete		ND		
2022-0806-31-3-15	Concrete	Barriers	ND		
2022-0806-31-3-16	Concrete		ND		
2022-0806-31-3-17	Concrete	Sidewalk	ND		
2022-0806-31-3-18	Concrete		ND		
2022-0806-31-3-19	Concrete	Sidewalk curb	ND		
2022-0806-31-3-20	Concrete		ND		

ND None Detected

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6.0 FINDINGS (continued)

Bridge # 544/9C

Sample Number	Material Description by Layer	Location	Asbestos	Quantity **	Friable*
2022-0806-31-3-21	Asphalt	Bridge deck	ND		
2022-0806-31-3-22	Asphalt		ND		
2022-0806-31-3-23	1: White marking 2: Asphalt	Bridge deck – lane markings	1: ND 2: ND		
2022-0806-31-3-24	1: White marking 2: Asphalt		1: ND 2: ND		
2022-0806-31-3-25	1: Yellow marking 2: Asphalt	Bridge deck – lane markings	1: ND 2: ND		
2022-0806-31-3-26	1: Yellow marking 2: Asphalt		1: ND 2: ND		
2022-0806-31-3-27	Black sealant	Bridge deck	ND		
2022-0806-31-3-28	Black sealant		ND		
2022-0806-31-3-29	Concrete	Barriers	ND		
2022-0806-31-3-30	Concrete		ND		
2022-0806-31-3-31	Concrete	Culvert # 700192	ND		
2022-0806-31-3-32	Concrete		ND		

SR 544 (MP 7.57 – 7.70)

Sample Number	Material Description by Layer	Location	Asbestos	Quantity **	Friable*
2022-0806-31-33	1: Asphalt 2: Concrete	Sidewalk	1: ND 2: ND		
2022-0806-31-34	1: Asphalt 2: Concrete		1: ND 2: ND		
2022-0806-31-35	Concrete	Sidewalk curb	ND		
2022-0806-31-36	Concrete		ND		

ND None Detected

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6.0 FINDINGS (continued)

Lead-Containing Paint Coatings

The following paint materials were sampled by NVL as part of this project and contain lead:

Sample Number	Material Description	Location	Lead in mg/kg	Lead in %
2022-0806-31-Pb-2	**Yellow lane marking**	**Bridge # 544/10**	**80.0**	**0.08**
2022-0806-31-Pb-4	**Yellow lane marking**	**Bridge # 544/9C**	**110.0**	**0.11**

Lead-Containing Paint Coatings - Lead content Below the Limit of Detection

The following paint materials were sampled by NVL as part of this project and lead was not detected above the Lower Detection Limit.

Sample Number	Material Description	Location	Lead in mg/kg	Lead in %
2022-0806-31-Pb-1	White lane marking	Bridge # 544/10	< 12.0	< 0.012%
2022-0806-31-Pb-3	White lane marking	Bridge # 544/9C	< 13.0	< 0.013%

TCLP Sampling

The TCLP sample result is below the dangerous waste threshold of 5.0 ppm for lead. Thus, the solid waste stream of the demolition debris from the structures is considered as regular demolition debris.

Sample Number	Sample Location	Results in ppm
2022-0806-31-TCLP-1	Bridge # 544/10	< 0.20
2022-0806-31-TCLP-2	Bridge # 544/9C	< 0.20
2022-0806-31-Pb-4	Bridge # 544/9C	< 0.20

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7.0 CONCLUSIONS AND RECOMMENDATIONS

Asbestos

There were **no asbestos-containing building materials** identified during the Asbestos and Lead Inspection of the subject sites.

In accordance with WAC 296-62-07721(3), all suspect material if not previously sampled such as asphalt, water proofing membrane, grout, caulking, sealants, adhesives & electrical wiring must be Presumed Asbestos Containing Materials (PACM) until tested in accordance with AHERA (40 CFR Part 763, Subpart E) which demonstrates that the material is not asbestos containing material.

Contractors should be aware that concealed suspect asbestos-containing building materials may be uncovered during demolition or renovation work. Contractors should have contingency plans that include stopping work, evacuation of the immediate area and sampling by a certified AHERA Building Inspector whenever these materials are found. Concealed suspect materials may include but are not limited to: non-fiberglass pipe or roof drain insulation; cement asbestos pipe; spray-applied coatings; cement board; asphalt or paper vapor barriers; floorings, sealants and adhesives.

If discovered, all asbestos-containing materials that will be disturbed as a natural part of renovation / demolition are required to be removed & disposed in accordance with Washington State regulations. Washington State Department of Labor and Industries and PSCAA requires that the abatement be performed using Certified Asbestos Workers under the direct on-site supervision by a Certified Asbestos Supervisor.

Lead

Lead-containing paint was identified in the following paint samples collected. Worker protection protocols are applicable:

1. **Yellow lane marking**
   Sample number: 2022-0806-31-Pb-2



Yellow lane markings on bridge # 544/10.

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7.0 CONCLUSIONS AND RECOMMENDATIONS (continued)

2. Yellow lane marking
Sample number: 2022-0806-31-Pb-4

Yellow lane markings on bridge # 544/9C.



Lead exposure in construction is regulated in Washington State by WAC 296-155-176. These regulations protect workers disturbing building surfaces with lead containing paints. Paint with “any detectable level” of lead is classified as a lead containing paint by federal and state regulations and the applicable worker safety provisions must be implemented.

In accordance with Local, Federal and State regulations, engineered controls and best management practices (BMPs) should be utilized to reduce or minimize lead exposure during renovation/demolition as identified in but not limited to WAC 296-155-176.

TCLP - Lead

The TCLP samples result is below the dangerous waste threshold of 5.0 ppm for lead. Thus, the solid waste stream of the demolition debris from the structures is considered as regular demolition debris.

A solid waste exhibits the characteristic of toxicity if, using the *Toxicity Characteristic Leaching Procedure* (TCLP) testing method, as incorporated in WAC 173-303-090, the extract from a representative sample of the waste contains lead (Pb) contaminants equal to or greater than 5.0 ppm. A material "fails" the TCLP when there is 5.0 parts per million or greater of lead (Pb) in the leachate.

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8.0 LIMITATIONS OF SURVEY

The purpose of this survey was to identify suspect asbestos containing materials, and lead paint coatings which would be impacted by the planned Project that is described in the Scope of Work in Section 2.0. This survey includes all accessible materials that will be impacted by this project as determined by the AHERA Building Inspector. No destructive or soft/limited demolition was performed during this inspection.

This site visit consisted of a thorough visual walkthrough of the impacted work area for the purpose of viewing and sampling potential asbestos containing material and lead based paint. As hazardous material surveys are non-comprehensive by nature, NVL Laboratories, Inc. cannot be held liable for materials which require destructive means to access, materials which are hidden from sight (e.g. materials hidden behind walls), materials which cannot be found due to their obscure nature, or which otherwise cannot be discovered with reasonable diligence.

This document is the sole property of NVL Laboratories and the property owner, or his agent, authorizing this survey.

Inspected By

Tanveer Khan
AHERA Building Inspector
AHERA Certification # 185718
Expiration Date: July 13, 2023

Reviewed By

Syed Hasan
Manager Field Services
AHERA Certification: # 185713
Expiration Date: July 13, 2023

Inspected By

Cameron Patterson
AHERA Building Inspector
AHERA Certification # 187422
Expiration Date: Jan 19, 2024

Inspected By

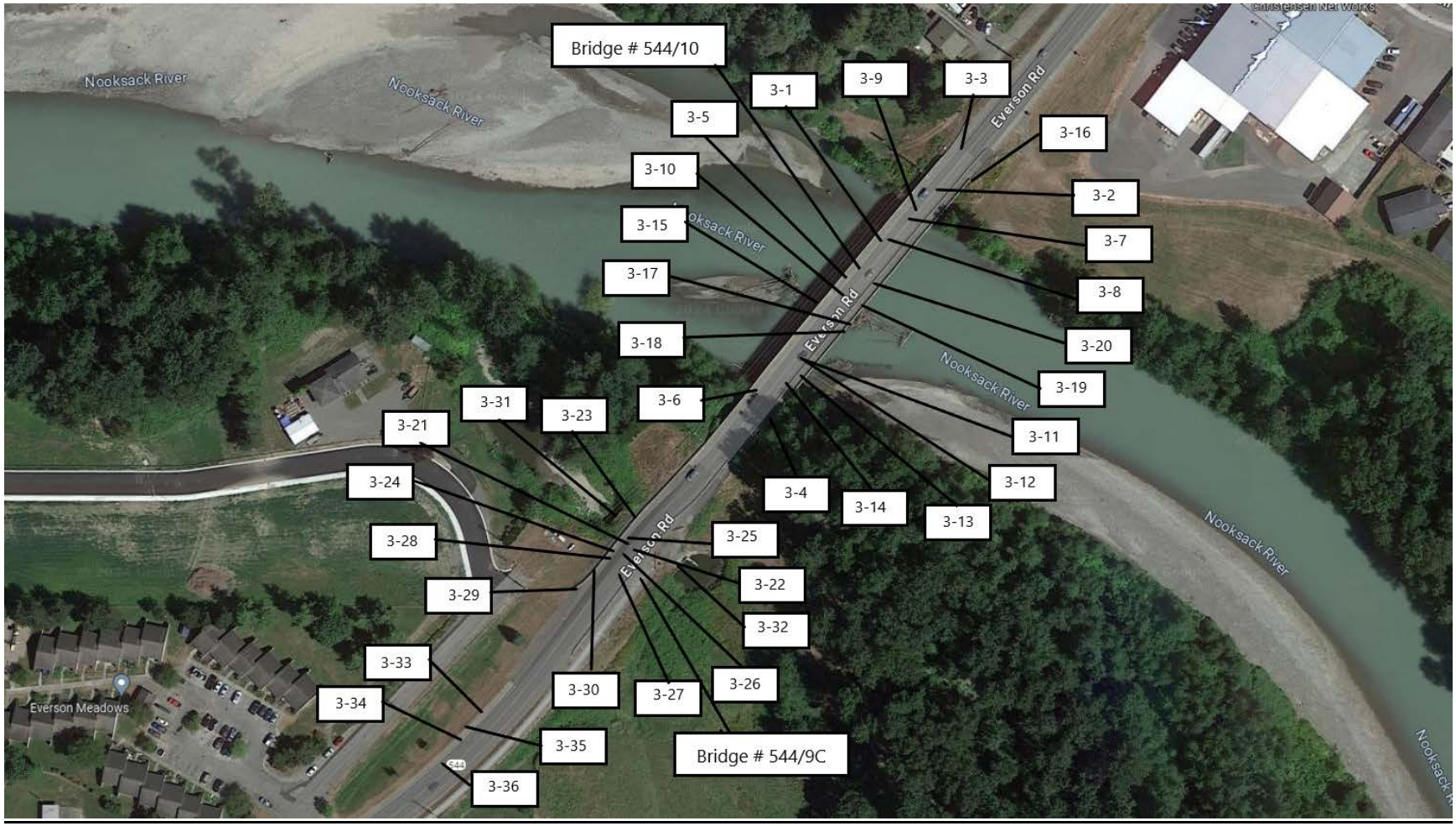
Jaren Hutchings
AHERA Building Inspector
AHERA Certification: #192193
Expiration Date: January 8, 2025

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Appendix A

Sample Locations
(Vicinity Map Location Plan) and Photographs


Bridge # 544/10
Nooksack River
Nooksack River
Everson Rd
3-1
3-9
3-3
3-5
3-16
3-10
3-2
3-15
3-7
3-17
3-8
3-18
3-20
3-19
3-31
3-23
3-6
3-21
3-11
3-24
3-12
3-4
3-14
3-13
3-28
3-25
3-22
3-29
3-32
3-33
3-30
3-27
3-26
3-34
Everson Meadows
3-35
Bridge # 544/9C
3-36
544
Nooksack River
Nooksack River

SAMPLES PHOTOGRAPHS

Bridge # 544/10



Samples 2022-0806-31-3-1 & 3-2



Samples 2022-0806-31-3-3 & 3-4



Samples 2022-0806-31-3-5 & 3-6



Samples 2022-0806-31-3-7 & 3-8



Samples 2022-0806-31-3-9 & 3-10



Samples 2022-0806-31-3-11 & 3-12

SAMPLES PHOTOGRAPHS (CONTINUED)

Bridge # 544/10



Samples 2022-0806-31-3-13 & 3-14



Samples 2022-0806-3-15 & 3-16



Samples 2022-0806-31-3-17 & 3-18



Samples 2022-0806-31-3-19 & 3-20

SAMPLES PHOTOGRAPHS (CONTINUED)

Bridge # 544/9C



Samples 2022-0806-31-3-21 & 3-22



Samples 2022-0806-31-3-23 & 3-24



Samples 2022-806-31-3-25 & 3-26



Samples 2022-0806-31-3-27 & 3-28



Samples 2022-806-31-3-31 & 3-30



Samples 2022-0806-31-3-31 & 3-32

SAMPLES PHOTOGRAPHS (CONTINUED)

SR 544 (MP 7.57 – 7.70)



Samples 2022-0806-31-3-33 & 3-34



Samples 2022-0806-31-3-35 & 3-36

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Appendix B

Laboratory Analysis Results

February 8, 2024

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2401959.00

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/10

Dear Mr. Patterson,

Enclosed please find test results for the 20 sample(s) submitted to our laboratory for analysis on 2/1/2024.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

NVLAP
Testing
Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401959.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116

Lab ID: 24012064 **Client Sample #: 2022-0806-31-3-1**
Location: XL6549 - Bridge # 544/10
Comments: Wet sample was dried prior to analysis.

Layer 1 of 1	**Description:** Gray crumbly sandy material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Mineral grains	None Detected	ND	**None Detected ND**

Lab ID: 24012065 **Client Sample #: 2022-0806-31-3-2**
Location: XL6549 - Bridge # 544/10
Comments: Wet sample was dried prior to analysis.

Layer 1 of 1	**Description:** Gray crumbly sandy material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Mineral grains	Cellulose	1%	**None Detected ND**

Lab ID: 24012066 **Client Sample #: 2022-0806-31-3-3**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1	**Description:** Black rubbery material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Rubber/Binder, Fine particles, Fine grains	Cellulose	2%	**None Detected ND**
	Debris	Glass fibers	1%	

Lab ID: 24012067 **Client Sample #: 2022-0806-31-3-4**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1	**Description:** Black rubbery material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Rubber/Binder, Fine particles, Fine grains	Cellulose	3%	**None Detected ND**
	Debris	Glass fibers	1%	

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/08/2024
Reviewed by: Kunga Woser **Date:** 02/08/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401959.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116

Lab ID: 24012068 **Client Sample #: 2022-0806-31-3-5**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** White brittle material with paint and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Paint, Binder/Filler, Glass beads	Cellulose	1%	**None Detected ND**
Fine grains, Debris			

Lab ID: 24012069 **Client Sample #: 2022-0806-31-3-6**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** White crumbly material with paint and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Paint, Binder/Filler, Glass beads	Cellulose	2%	**None Detected ND**
Fine grains, Debris			

Lab ID: 24012070 **Client Sample #: 2022-0806-31-3-7**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Yellow brittle material with debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Glass beads	Cellulose	1%	**None Detected ND**
Fine grains			

Lab ID: 24012071 **Client Sample #: 2022-0806-31-3-8**
Location: XL6549 - Bridge # 544/10

Layer 1 of 2 **Description:** Yellow brittle material

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Glass beads	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/08/2024
Reviewed by: Kunga Woser **Date:** 02/08/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401959.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116

Layer 2 of 2	**Description:** Gray crumbly sandy material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Fine grains	Cellulose	1%	**None Detected ND**

Lab ID: 24012072 **Client Sample #: 2022-0806-31-3-9**
Location: XL6549 - Bridge # 544/10

Layer 1 of 2	**Description:** Black soft asphaltic material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Asphalt/Binder, Asphaltic Particles, Debris	Cellulose	2%	**None Detected ND**
Layer 2 of 2	**Description:** Light gray brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Mineral grains	None Detected	ND	**None Detected ND**

Lab ID: 24012073 **Client Sample #: 2022-0806-31-3-10**
Location: XL6549 - Bridge # 544/10

Layer 1 of 2	**Description:** Black soft asphaltic material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Asphalt/Binder, Asphaltic Particles, Debris	Cellulose	3%	**None Detected ND**
Layer 2 of 2	**Description:** Light gray brittle sandy material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Mineral grains	Cellulose	1%	**None Detected ND**

Lab ID: 24012074 **Client Sample #: 2022-0806-31-3-11**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1	**Description:** Gray crumbly sandy material with paint and gray surface			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Paint, Binder/Filler, Fine particles	None Detected	ND	**None Detected ND**
	Mineral grains			

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/08/2024
Reviewed by: Kunga Woser **Date:** 02/08/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401959.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116

Lab ID: 24012075 **Client Sample #: 2022-0806-31-3-12**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Gray crumbly sandy material with paint and gray surface

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Paint, Binder/Filler, Fine particles	Cellulose	1%	**None Detected ND**
Mineral grains			

Lab ID: 24012076 **Client Sample #: 2022-0806-31-3-13**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Gray brittle sandy material with light gray surface and fibrous debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Mineral grains	Synthetic fibers	3%	**None Detected ND**
Debris	Cellulose	1%	

Lab ID: 24012077 **Client Sample #: 2022-0806-31-3-14**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Gray brittle sandy material with light gray surface and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Mineral grains	Synthetic fibers	1%	**None Detected ND**
Debris			

Lab ID: 24012078 **Client Sample #: 2022-0806-31-3-15**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Light gray brittle sandy material with gray surface and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Fine grains	Cellulose	1%	**None Detected ND**
Mineral grains, Debris, Granules			

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/08/2024
Reviewed by: Kunga Woser **Date:** 02/08/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401959.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116

Lab ID: 24012079 **Client Sample #: 2022-0806-31-3-16**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Light gray brittle sandy material with gray surface and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Fine grains	Cellulose	3%	**None Detected ND**
Mineral grains, Debris, Granules			

Lab ID: 24012080 **Client Sample #: 2022-0806-31-3-17**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Gray hard brittle sandy material with debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Fine grains	Cellulose	3%	**None Detected ND**
Mineral grains, Organic debris			

Lab ID: 24012081 **Client Sample #: 2022-0806-31-3-18**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Light gray hard brittle sandy material with light gray surface and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Fine grains	Cellulose	2%	**None Detected ND**
Mineral grains, Organic debris			

Lab ID: 24012082 **Client Sample #: 2022-0806-31-3-19**
Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Light gray hard brittle sandy material with light gray surface and debris

Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
Binder/Filler, Fine particles, Fine grains	Cellulose	1%	**None Detected ND**
Mineral grains, Debris, Granules			

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/08/2024
Reviewed by: Kunga Woser **Date:** 02/08/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401959.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 20
Samples Analyzed: 20
Method: EPA/600/R-93/116

Lab ID: 24012083 **Client Sample #: 2022-0806-31-3-20**

Location: XL6549 - Bridge # 544/10

Layer 1 of 1 **Description:** Light gray hard brittle sandy material with light gray surface

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Fine grains	None Detected ND	**None Detected ND**
Mineral grains, Granules		

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/08/2024
Reviewed by: Kunga Woser **Date:** 02/08/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

NVL

Company NVL Field Services Division
Address 4708 Aurora Ave. N.
Seattle, WA 98103
Project Manager Mr. Cameron Patterson
Phone (206) 547-0100

NVL Batch Number **2401959.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 2/8/2024 **Time** 4:30 PM
Email cameron.p@nvllabs.com
Fax (206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/10

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 20 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012064	2022-0806-31-3-1		A
2	24012065	2022-0806-31-3-2		A
3	24012066	2022-0806-31-3-3		A
4	24012067	2022-0806-31-3-4		A
5	24012068	2022-0806-31-3-5		A
6	24012069	2022-0806-31-3-6		A
7	24012070	2022-0806-31-3-7		A
8	24012071	2022-0806-31-3-8		A
9	24012072	2022-0806-31-3-9		A
10	24012073	2022-0806-31-3-10		A
11	24012074	2022-0806-31-3-11		A
12	24012075	2022-0806-31-3-12		A
13	24012076	2022-0806-31-3-13		A
14	24012077	2022-0806-31-3-14		A
15	24012078	2022-0806-31-3-15		A
16	24012079	2022-0806-31-3-16		A
17	24012080	2022-0806-31-3-17		A
18	24012081	2022-0806-31-3-18		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Urooj Yousuf		NVL	2/8/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:44 PM
Entered By: Kelly AuVu

ASBESTOS LABORATORY SERVICES

NVL

Company	NVL Field Services Division	**NVL Batch Number**	**2401959.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/8/2024	**Time** 4:30 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/10

Subcategory PLM Bulk

Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 20 Rush Samples

	Lab ID	Sample ID	Description	A/R
19	24012082	2022-0806-31-3-19		A
20	24012083	2022-0806-31-3-20		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Urooj Yousuf		NVL	2/8/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:44 PM
Entered By: Kelly AuVu

CHAIN of CUSTOD' SAMPLE LOG 2401959

VL IE SERVICES ...AENT + TRAINING

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/10

NVL Batch Number
Client Job Number 2022-0806 - 31
Total Samples 20
Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days ☐ 4 Hrs ☐ 2 Days ☒ 5 Days
Please call for TAT less than 24 Hrs
Email address lanunobi@hntb.com

Phone: (425) 450-2514 **Fax:** (425) 453-9179 **Cell** (425) 256-0354

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☒ Asbestos Bulk	☒ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK	
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration		

METALS	Det. Limit	Matrix		RCRA Metals		Other Metals
☐ Total Metals	☐ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ Chromium (Cr	☐ All 3
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Lead (Pb)	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☐ Mercury (Hg)	☐ Nickel (Ni) ☐ Zinc (Zn)

☐ Other Types of Analysis ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) _____
☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-3-1	2022-0806-31-3-16	
2		3-2	3-17	
3		3-3	3-18	
4		3-4	3-19	
5		3-5	3-20	
6		3-6		
7		3-7		
8		3-8		
9		3-9		
10		3-10		
11		3-11		
12		3-12		
13		3-13		
14		3-14		
15		3-15		

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON D		NVL	2/1/24	10:00
Relinquished by	CAMERON D		NVL	2/1/24	
Received by	Rachelle M.		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

February 8, 2024

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2401960.00

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/9C

Dear Mr. Patterson,

Enclosed please find test results for the 12 sample(s) submitted to our laboratory for analysis on 2/1/2024.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Munaf Khan, Laboratory Director

Testing
Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/9C

Batch #: 2401960.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 12
Samples Analyzed: 12
Method: EPA/600/R-93/116

Lab ID: 24012084 **Client Sample #: 2022-0806-31-3-21**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012085 **Client Sample #: 2022-0806-31-3-22**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012086 **Client Sample #: 2022-0806-31-3-23**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 2 **Description:** White paint with glass

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Glass beads, Fine particles	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012087 **Client Sample #: 2022-0806-31-3-24**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 2 **Description:** White paint with glass

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Glass beads, Fine particles	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alex Shea **Date:** 02/07/2024
Reviewed by: Munaf Khan **Date:** 02/08/2024

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/9C

Batch #: 2401960.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 12
Samples Analyzed: 12
Method: EPA/600/R-93/116

Layer 2 of 2 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012088 **Client Sample #: 2022-0806-31-3-25**

Location: XL6549 - Bridge # 544/9C

Layer 1 of 2 **Description:** Yellow paint with glass

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Glass beads, Fine particles	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012089 **Client Sample #: 2022-0806-31-3-26**

Location: XL6549 - Bridge # 544/9C

Layer 1 of 2 **Description:** Yellow paint with glass

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Fine particles	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Black asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012090 **Client Sample #: 2022-0806-31-3-27**

Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** Black soft asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Sampled by: Client
Analyzed by: Alex Shea **Date:** 02/07/2024
Reviewed by: Munaf Khan **Date:** 02/08/2024

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - Bridge # 544/9C

Batch #: 2401960.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 12
Samples Analyzed: 12
Method: EPA/600/R-93/116

Lab ID: 24012091 **Client Sample #: 2022-0806-31-3-28**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** Black soft asphaltic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Asphalt/Binder, Asphaltic Particles	Cellulose <1%	**None Detected ND**

Lab ID: 24012092 **Client Sample #: 2022-0806-31-3-29**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** White cementitious material with granules

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Granules, Fine grains	None Detected ND	**None Detected ND**

Lab ID: 24012093 **Client Sample #: 2022-0806-31-3-30**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** White cementitious material with granules

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Granules, Fine grains	None Detected ND	**None Detected ND**

Lab ID: 24012094 **Client Sample #: 2022-0806-31-3-31**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** Gray cementitious material with granules

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Granules, Fine grains	Cellulose <1%	**None Detected ND**

Lab ID: 24012095 **Client Sample #: 2022-0806-31-3-32**
Location: XL6549 - Bridge # 544/9C

Layer 1 of 1 **Description:** Gray cementitious material with granules

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Granules, Fine grains	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Alex Shea **Date:** 02/07/2024
Reviewed by: Munaf Khan **Date:** 02/08/2024

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

NVL

Company NVL Field Services Division
Address 4708 Aurora Ave. N.
Seattle, WA 98103
Project Manager Mr. Cameron Patterson
Phone (206) 547-0100

NVL Batch Number **2401960.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 2/8/2024 **Time** 4:30 PM
Email cameron.p@nvllabs.com
Fax (206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/9C

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 12 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012084	2022-0806-31-3-21		A
2	24012085	2022-0806-31-3-22		A
3	24012086	2022-0806-31-3-23		A
4	24012087	2022-0806-31-3-24		A
5	24012088	2022-0806-31-3-25		A
6	24012089	2022-0806-31-3-26		A
7	24012090	2022-0806-31-3-27		A
8	24012091	2022-0806-31-3-28		A
9	24012092	2022-0806-31-3-29		A
10	24012093	2022-0806-31-3-30		A
11	24012094	2022-0806-31-3-31		A
12	24012095	2022-0806-31-3-32		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Alex Shea		NVL	2/7/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:46 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY
SAMPLE LOG

2401960

Client: NVL Laboratories Inc
Street: 4708 Aurora Ave N
Seattle, WA 98103
Project Manager: Syed Hasan
Project Location: XL6549 - Bridge # 544/9C

NVL Batch Number:
Client Job Number: 2022-0806 -31
Total Samples: 12

Turn Around Time: ☐ 1 Hr ☐ 2 Hrs ☐ 4 Hrs ☐ 6 Hrs ☐ 1 Day ☐ 2 Days ☒ 3 Days ☐ 4 Days ☒ 5 Days ☐ 10 Days
Please call for TAT less than 24 Hrs

Email address: lanunobi@hntb.com

Phone: (425) 450-2514 Fax: (425) 453-9179 Cell (425) 256-0354

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II) ☐ Other
☒ Asbestos Bulk	☒ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration	

METALS	Det. Limit	Matrix		RCRA Metals		Other Metals
☐ Total Metals	☐ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ All 3
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☐ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☐ Other Types of Analysis ☐ Fiberglass ☐ Silica ☐ Nuisance Dust ☐ Respirable Dust ☐ Other (Specify)

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-3-21		
2		3-22		
3		3-23		
4		3-24		
5		3-25		
6		3-26		
7		3-27		
8		3-28		
9		3-29		
10		3-30		
11		3-31		
12		3-32		
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P	CPA	NVL	2/1/24	10:00
Relinquished by	CAMERON P	CPA	NVL	2/1/24	
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

February 7, 2024

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2401961.00

Client Project: 2022-0806-31
Location: XL6549 - SR544 (MP 7.57 - 7.70)

Dear Mr. Patterson,

Enclosed please find test results for the 4 sample(s) submitted to our laboratory for analysis on 2/1/2024.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

NVLAP
Testing
Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - SR544 (MP 7.57 - 7.70)

Batch #: 2401961.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 4
Samples Analyzed: 4
Method: EPA/600/R-93/116

Lab ID: 24012096 **Client Sample #: 2022-0806-31-3-33**
Location: XL6549 - SR544 (MP 7.57 - 7.70)

Layer 1 of 2 **Description:** Brown asphaltic fibrous material with debris

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Asphaltic Particles, Wood flakes	Cellulose 18%	**None Detected ND**
Debris		

Layer 2 of 2 **Description:** Gray brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Mineral grains	Cellulose 3%	**None Detected ND**

Lab ID: 24012097 **Client Sample #: 2022-0806-31-3-34**
Location: XL6549 - SR544 (MP 7.57 - 7.70)

Layer 1 of 2 **Description:** Brown asphaltic fibrous material with debris

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Asphaltic Particles, Wood flakes	Cellulose 13%	**None Detected ND**
Debris		

Layer 2 of 2 **Description:** Gray brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Mineral grains	None Detected ND	**None Detected ND**

Lab ID: 24012098 **Client Sample #: 2022-0806-31-3-35**
Location: XL6549 - SR544 (MP 7.57 - 7.70)

Layer 1 of 1 **Description:** Gray brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Mineral grains	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/06/2024
Reviewed by: Kunga Woser **Date:** 02/07/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: Mr. Cameron Patterson
Project Location: XL6549 - SR544 (MP 7.57 - 7.70)

Batch #: 2401961.00
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 4
Samples Analyzed: 4
Method: EPA/600/R-93/116

Lab ID: 24012099 **Client Sample #: 2022-0806-31-3-36**

Location: XL6549 - SR544 (MP 7.57 - 7.70)

Layer 1 of 1 **Description:** Gray brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Mineral grains	Cellulose 1%	**None Detected ND**

Sampled by: Client
Analyzed by: Urooj Yousuf **Date:** 02/06/2024
Reviewed by: Kunga Woser **Date:** 02/07/2024

Kunga Woser

Kunga Woser, Senior Laboratory Analyst

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and EPA 40 CFR Appendix E to Subpart E of Part 763 with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

Company	NVL Field Services Division	**NVL Batch Number**	**2401961.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/8/2024	**Time** 4:30 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - SR544 (MP 7.57 - 7.70)

Subcategory PLM Bulk

Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 4 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012096	2022-0806-31-3-33		A
2	24012097	2022-0806-31-3-34		A
3	24012098	2022-0806-31-3-35		A
4	24012099	2022-0806-31-3-36		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Urooj Yousuf		NVL	2/6/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:47 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY SAMPLE LOG

2401961

Client: NVL Laboratories Inc
Street: 4708 Aurora Ave N
Seattle, WA 98103
Project Manager: Syed Hasan
Project Location: XL6549 - SR 544 (MP 7.57 - 7.70)

NVL Batch Number
Client Job Number: 2022-0806-31
Total Samples: 4
Turn Around Time: ☐ 1 Hr ☐ 2 Hrs ☐ 4 Hrs ☐ 6 Hrs ☐ 1 Day ☐ 2 Days ☒ 3 Days ☐ 4 Days ☒ 5 Days ☐ 10 Days
Please call for TAT less than 24 Hrs

Email address: lanunobi@hntb.com

Phone: (425) 450-2514 Fax: (425) 453-9179 Cell (425) 256-0354

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☒ Asbestos Bulk	☒ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK	
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration		

METALS	Det. Limit	Matrix		RCRA Metals		Other Metals
☐ Total Metals	☐ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ All 3
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☐ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☐ Other Types of Analysis: ☐ Fiberglass ☐ Silica ☐ Nuisance Dust ☐ Respirable Dust ☐ Other (Specify) _____

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-3-33		
2		3-34		
3		3-35		
4		3-36		
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P		NVL	2/1/24	10:00
Relinquished by	CAMERON P		NVL	2/1/24	
Received by	Raehene Miller		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

Results report to

February 5, 2024

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

NVL Batch # 2401964.00

RE: Total Metal Analysis
Method: EPA 6010 Lead <paint>
Item Code: ICP-02

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/10

Dear Mr. Patterson,

NVL Labs received 2 sample(s) for the said project on 2/1/2024. Preparation of these samples was conducted following protocol outlined in EPA 3051/6010D, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 6010 Lead <paint>. The results are usually expressed in mg/kg and ppm. Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample results

LAB # 101861

Analysis Report

Total Metals

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401964.00
Matrix: Bulk
Method: EPA 3051/6010D
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 2
Samples Analyzed: 2

Lab ID	Client Sample #	Elements	Sample wt (g)	RL mg / kg	Results in mg / kg	Results in ppm
24012102	2022-0806-31-Pb-1	Lead (Pb)	0.3268	12.0	< 12.0	< 12.0
24012103	2022-0806-31-Pb-2	Lead (Pb)	0.3007	13.0	80.0	80.0

Sampled by: Client
Analyzed by: Shalini Patel
Reviewed by: Nick Ly

Date Analyzed: 02/02/2024
Date Issued: 02/05/2024

Nick Ly, Technical Director

mg/ kg = Milligrams per kilogram
ppm = Parts per million

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

LEAD LABORATORY SERVICES

Company	NVL Field Services Division	**NVL Batch Number**	**2401964.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/8/2024	**Time** 4:30 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/10

Subcategory Inductively Coupled Plasma (ICP)

Item Code ICP-02 EPA 6010 Lead <paint>

Total Number of Samples 2 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012102	2022-0806-31-Pb-1		A
2	24012103	2022-0806-31-Pb-2		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Shalini Patel		NVL	2/2/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:53 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY SAMPLE LOG

2401964

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/10

NVL Batch Number
Client Job Number 2022-0806 -31
Total Samples 2
Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days ☐ 4 Hrs ☐ 2 Days ☒ 5 Days
Please call for TAT less than 24 Hrs
Email address lanunobi@hntb.com

Phone: (425) 450-2514 **Fax:** (425) 453-9179 **Cell** (425) 256-0354

☐ **Asbestos Air**	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II) ☐ Other
☐ **Asbestos Bulk**	☐ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK
☐ **Mold/Fungus**	☐ Mold Air	☐ Mold Bulk	☐ **Rotometer Calibration**	

METALS	**Det. Limit**	**Matrix**		**RCRA Metals**		**Other Metals**
☒ Total Metals	☒ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8 / ☐ Chromium (Cr	☐ All 3
☐ TCLP	☒ ICP (ppm)	☐ Drinking water	☒ Paint Chips in %	☐ Barium (Ba)	☐ Lead (Pb)	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☐ Mercury (Hg)	☐ Nickel (Ni) ☐ Zinc (Zn)

☐ **Other Types of Analysis** ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) _____ ☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-Pb-1		
2		↓ Pb-2		
3				
4				
5				
6				
7				
8				
9				
10				
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13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P	CPA	NVL	2/1/24	1000
Relinquished by	CAMERON P	CPA	NVL	2/1/24	
Received by	Rochelle Miller		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

February 5, 2024

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

NVL Batch # 2401965.00

RE: Total Metal Analysis
Method: EPA 6010 Lead <paint>
Item Code: ICP-02

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/9C

Dear Mr. Patterson,

NVL Labs received 2 sample(s) for the said project on 2/1/2024. Preparation of these samples was conducted following protocol outlined in EPA 3051/6010D, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 6010 Lead <paint>. The results are usually expressed in mg/kg and ppm. Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample results

LAB # 101861

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Total Metals

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/9C

Batch #: 2401965.00
Matrix: Bulk
Method: EPA 3051/6010D
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 2
Samples Analyzed: 2

Lab ID	Client Sample #	Elements	Sample wt (g)	RL mg / kg	Results in mg / kg	Results in ppm
24012104	2022-0806-31-Pb-3	Lead (Pb)	0.3185	13.0	< 13.0	< 13.0
24012105	2022-0806-31-Pb-4	Lead (Pb)	0.3315	12.0	110.0	110.0

Sampled by: Client
Analyzed by: Shalini Patel
Reviewed by: Nick Ly

Date Analyzed: 02/02/2024
Date Issued: 02/05/2024

Nick Ly, Technical Director

mg/ kg = Milligrams per kilogram
ppm = Parts per million

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

LEAD LABORATORY SERVICES

Company	NVL Field Services Division	**NVL Batch Number**	**2401965.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/8/2024	**Time** 4:30 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/9C

Subcategory Inductively Coupled Plasma (ICP)

Item Code ICP-02 EPA 6010 Lead <paint>

Total Number of Samples 2 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012104	2022-0806-31-Pb-3		A
2	24012105	2022-0806-31-Pb-4		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kelly AuVu		NVL	2/1/24	1630
Analyzed by	Shalini Patel		NVL	2/2/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:55 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY SAMPLE LOG

2401965

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/9C

NVL Batch Number
Client Job Number 2022-0806-31
Total Samples 2
Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days ☐ 4 Hrs ☐ 2 Days ☒ 5 Days
Please call for TAT less than 24 Hrs
Email address lanunobi@hntb.com

Phone: (425) 450-2514 **Fax:** (425) 453-9179 **Cell** (425) 256-0354

☐ **Asbestos Air**	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II) ☐ Other
☐ **Asbestos Bulk**	☐ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK
☐ **Mold/Fungus**	☐ Mold Air	☐ Mold Bulk	☐ **Rotometer Calibration**	

METALS	**Det. Limit**	**Matrix**		**RCRA Metals**		**Other Metals**
☒ Total Metals	☒ ~~FAA (ppm)~~	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ **All 3**
☐ TCLP	☒ ICP (ppm)	☐ Drinking water	☒ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☒ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☐ **Other Types of Analysis** ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) _____
☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-Pb-3		
2		↓ Pb-4		
3				
4				
5				
6				
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12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P	CP	NVL	2/1/24	10:00
Relinquished by	CAMERON P	CP	NVL	2/1/24	
Received by	Rachelle M.		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

February 7, 2024

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

NVL Batch # 2401962.00

RE: Total Metal Analysis
Method: EPA 1311/6010 Lead by ICP <Bulk>
Item Code: TCLP-2

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/10

Dear Mr. Patterson,

NVL Labs received 1 sample(s) for the said project on 2/1/2024. Preparation of these samples was conducted following protocol outlined in EPA 1311/6010D, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 1311/6010 Lead by ICP <Bulk>. The results are usually expressed in mg/L and ppm. Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample results

LAB # 101861

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Toxicity Characteristic Leaching Procedure (TCLP)

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/10

Batch #: 2401962.00
Matrix: Bulk
Method: EPA 1311/6010D
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 1
Samples Analyzed: 1

Lab ID	Client Sample #	Elements	RL in mg / L	Results in mg / L	Results in ppm
24012100	**2022-0806-31-TCLP-1**	Lead (Pb)	0.20	< 0.20	< 0.20

Sampled by: Client
Analyzed by: Shalini Patel
Reviewed by: Nick Ly

Date Analyzed: 02/06/2024
Date Issued: 02/07/2024

Nick Ly, Technical Director

mg/ L = Milligrams per liter
N/A = Not Applicable

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

LEAD LABORATORY SERVICES

Company	NVL Field Services Division	**NVL Batch Number**	**2401962.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/8/2024	**Time** 4:30 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/10

Subcategory Inductively Coupled Plasma (ICP)

Item Code TCLP-2 EPA 1311/6010 Lead by ICP <Bulk>

Total Number of Samples 1 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012100	2022-0806-31-TCLP-1		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Shalini Patel		NVL	2/6/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:49 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY SAMPLE LOG

2401962

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/10

NVL Batch Number
Client Job Number 2022-0806-31
Total Samples 1
Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days ☐ 4 Hrs ☐ 2 Days ☒ 5 Days
Please call for TAT less than 24 Hrs
Email address lanunobi@hntb.com

Phone: (425) 450-2514 Fax: (425) 453-9179 Cell (425) 256-0354

☐ Asbestos Air	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☐ Asbestos Bulk	☐ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK	
☐ Mold/Fungus	☐ Mold Air	☐ Mold Bulk	☐ Rotometer Calibration		

METALS	Det. Limit	Matrix		RCRA Metals		Other Metals
☐ Total Metals	☒ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ All 3
☒ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☒ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☐ Other Types of Analysis ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) _____
☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-TCLP-1		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P	CPA	NVL	2/1/24	10:00
Relinquished by	CAMERON P	CPA	NVL	2/1/24	
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

Bulk Sample Field Data Sheet

2401962 L

INDUSTRIAL HYGIENE SERVICES
LABORATORY • MANAGEMENT • TRAINING

Client HNTB Corporation - Iruka Anynobi
Service Asbestos/Lead Renovation/Demo Inspection
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/10

NVL Batch Number _____
Client Job Number 2022-0806-31
Total Samples _____

Sampled By	Date	Time	Results Needed By
CAMERON	2/1/24		

Line #	Sample #	Homogeneous Material Description	Sample Location Floor # Room # / Other	%	Quantity (ft^2 / LF)	Friable Cond
1	2022-0806-31-TCLP-1	WHITE MARKING	5%			
2		YELLOW MARKING	5%			
3		CONCRETE	85%			
4		MISC.	5%			
5						
6						
7						
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15						

Page ___of___

form#: 7010.1

February 7, 2024

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

NVL Batch # 2401963.00

RE: Total Metal Analysis
Method: EPA 1311/6010 Lead by ICP <Bulk>
Item Code: TCLP-2

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/9C

Dear Mr. Patterson,

NVL Labs received 1 sample(s) for the said project on 2/1/2024. Preparation of these samples was conducted following protocol outlined in EPA 1311/6010D, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 1311/6010 Lead by ICP <Bulk>. The results are usually expressed in mg/L and ppm. Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Nick Ly, Technical Director

Enc.: Sample results

LAB # 101861

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Toxicity Characteristic Leaching Procedure (TCLP)

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/9C

Batch #: 2401963.00
Matrix: Bulk
Method: EPA 1311/6010D
Client Project #: 2022-0806-31
Date Received: 2/1/2024
Samples Received: 1
Samples Analyzed: 1

Lab ID	Client Sample #	Elements	RL in mg / L	Results in mg / L	Results in ppm
24012101	**2022-0806-31-TCLP-2**	Lead (Pb)	0.20	< 0.20	< 0.20

Sampled by: Client
Analyzed by: Shalini Patel
Reviewed by: Nick Ly

Date Analyzed: 02/06/2024
Date Issued: 02/07/2024

Nick Ly, Technical Director

mg/ L = Milligrams per liter
N/A = Not Applicable

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

LEAD LABORATORY SERVICES

Company	NVL Field Services Division	**NVL Batch Number**	**2401963.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/8/2024	**Time** 4:30 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/9C

Subcategory Inductively Coupled Plasma (ICP)

Item Code TCLP-2 EPA 1311/6010 Lead by ICP <Bulk>

Total Number of Samples 1 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24012101	2022-0806-31-TCLP-2		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by	Shalini Patel		NVL	2/6/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 2/1/2024
Time: 4:51 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY SAMPLE LOG

2401963

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/9C

NVL Batch Number
Client Job Number 2022-0806 -31
Total Samples 1

Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days ☐ 4 Hrs ☐ 2 Days ☒ 5 Days

Please call for TAT less than 24 Hrs

Email address lanunobi@hntb.com

Phone: (425) 450-2514 **Fax:** (425) 453-9179 **Cell** (425) 256-0354

☐ **Asbestos Air**	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II) ☐ Other
☐ **Asbestos Bulk**	☐ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK
☐ **Mold/Fungus**	☐ Mold Air	☐ Mold Bulk	☐ **Rotometer Calibration**	

METALS	**Det. Limit**	**Matrix**		**RCRA Metals**		**Other Metals**
☐ Total Metals	☒ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ **All 3**
☒ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☒ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☐ **Other Types of Analysis** ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) _____
☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-TCLP-1		
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P	CPA	NVL	2/1/24	10:00
Relinquished by	CAMERON P	CPA	NVL	2/1/24	
Received by	Rachelle Miller		NVL	2/1/24	1630
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

Bulk Sample Field Data Sheet

2401963

LABORATORY + MANAGEMENT + TRAINING

Client HNTB Corporation - Iruka Anynobi
Service Asbestos/Lead Renovation/Demo Inspection
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/9C

NVL Batch Number
Client Job Number 2022-0806-31
Total Samples

Sampled By	Date	Time	Results Needed By
CAMERON	2/1/24		

Line #	Sample #	Homogeneous Material Description	Sample Location Floor # Room # / Other	%	Quantity (ft^2 / LF)	Friable Cond
1	2022-0806-31-TCLP-2	WHITE MARKING	5%			
2		YELLOW MARKING	5%			
3		CONCRETE	85%			
4		MISC	5%			
5						
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7						
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Page ___of___

form#: 7010.1

February 13, 2024

Cameron Patterson
NVL Field Services Division
4708 Aurora Ave. N.
Seattle, WA 98103

NVL Batch # 2402502.00

RE: Total Metal Analysis
Method: EPA 1311/6010 Lead by ICP <Bulk>
Item Code: TCLP-2

Client Project: 2022-0806-31
Location: XL6549 - Bridge # 544/9C

Dear Mr. Patterson,

NVL Labs received 1 sample(s) for the said project on 2/9/2024. Preparation of these samples was conducted following protocol outlined in EPA 1311/6010D, unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 1311/6010 Lead by ICP <Bulk>. The results are usually expressed in mg/L and ppm. Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Shalini Patel, Manager Metals Lab

Enc.: Sample results

LAB # 101861

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Analysis Report

Toxicity Characteristic Leaching Procedure (TCLP)

Client: NVL Field Services Division
Address: 4708 Aurora Ave. N.
Seattle, WA 98103

Attention: **Mr. Cameron Patterson**
Project Location: XL6549 - Bridge # 544/9C

Batch #: 2402502.00
Matrix: Bulk
Method: EPA 1311/6010D
Client Project #: 2022-0806-31
Date Received: 2/9/2024
Samples Received: 1
Samples Analyzed: 1

Lab ID	Client Sample #	Elements	RL in mg / L	Results in mg / L	Results in ppm
24015125	**2022-0806-31-Pb-4**	Lead (Pb)	0.20	< 0.20	< 0.20

Sampled by: Client
Analyzed by: Aaron Brown
Reviewed by: Shalini Patel

Date Analyzed: 02/13/2024
Date Issued: 02/13/2024

Shalini Patel, Manager Metals Lab

mg/ L = Milligrams per liter
N/A = Not Applicable

RL = Reporting Limit
'<' = Below the reporting Limit

Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

LEAD LABORATORY SERVICES

Company	NVL Field Services Division	**NVL Batch Number**	**2402502.00**
Address	4708 Aurora Ave. N. Seattle, WA 98103	**TAT** 5 Days **Rush TAT**	**AH** No
Project Manager	Mr. Cameron Patterson	**Due Date** 2/16/2024	**Time** 12:00 PM
Phone	(206) 547-0100	**Email**	cameron.p@nvllabs.com
		Fax	(206) 634-1936

Project Name/Number: 2022-0806-31 **Project Location:** XL6549 - Bridge # 544/9C

Subcategory Inductively Coupled Plasma (ICP)

Item Code TCLP-2 EPA 1311/6010 Lead by ICP <Bulk>

Total Number of Samples 1 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	24015125	2022-0806-31-Pb-4		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	2/9/24	1200
Analyzed by	Aaron Brown		NVL	2/13/24	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions: Sample originally from batch 2401965

Date: 2/9/2024
Time: 12:28 PM
Entered By: Kelly AuVu

CHAIN of CUSTODY SAMPLE LOG

2402502

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Syed Hasan
Project Location XL6549 - Bridge # 544/9C

NVL Batch Number
Client Job Number 2022-0806-31
Total Samples
Turn Around Time ☐ 1 Hr ☐ 2 Hrs ☐ 4 Hrs ☐ 6 Hrs ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☒ 5 Days ☐ 10 Days
Please call for TAT less than 24 Hrs

Email address lanunobi@hntb.com
Phone: (425) 450-2514 **Fax:** (425) 453-9179 **Cell** (425) 256-0354

☐ **Asbestos Air**	☐ PCM (NIOSH 7400)	☐ TEM (NIOSH 7402)	☐ TEM (AHERA)	☐ TEM (EPA Level II)	☐ Other
☐ **Asbestos Bulk**	☐ PLM (EPA/600/R-93/116)	☐ PLM (EPA Point Count)	☐ PLM (EPA Gravimetry)	☐ TEM BULK	
☐ **Mold/Fungus**	☐ Mold Air	☐ Mold Bulk	☐ **Rotometer Calibration**		

METALS	**Det. Limit**	**Matrix**		**RCRA Metals**		**Other Metals**
☐ Total Metals	☒ ~~FAA (ppm)~~	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ **All 3**
☒ TCLP	☒ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☒ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☐ **Other Types of Analysis** ☐ Fiberglass ☐ Silica ☐ Nuisance Dust ☐ Respirable Dust ☐ Other (Specify) _____

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		2022-0806-31-Pb-4		
2				
3			BATCH #2401965	
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	CAMERON P	CP	NVL	2/9/24	10:00
Relinquished by	CAMERON P	CP	NVL		
Received by	Fatima Khan			2/9/24	12:00PM
Analyzed by					
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to

NVL LABS

Appendix C

AHERA Certifications & Laboratory Qualifications

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 102063-0

NVL Laboratories, Inc.

Seattle, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2023-10-01 through 2024-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary
Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NVL Laboratories, Inc.
4708 Aurora Avenue N.
Seattle, WA 98103
Mr. Nghiep Vi Ly
Phone: 206-547-0100 Fax: 206-634-1936
Email: nick.l@nvllabs.com
http://www.nvllabs.com

ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 102063-0**

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

Effective 2023-10-01 through 2024-09-30

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

NVL Laboratories, Inc.

4708 Aurora Ave N, Seattle, WA 98103-6516

Laboratory ID: LAP-101861

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

LABORATORY ACCREDITATION PROGRAMS

☑	**INDUSTRIAL HYGIENE**	Accreditation Expires: July 01, 2025
☑	**ENVIRONMENTAL LEAD**	Accreditation Expires: July 01, 2025
☑	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires: July 01, 2025
☐	**FOOD**	Accreditation Expires:
☑	**UNIQUE SCOPES**	Accreditation Expires: July 01, 2025
☐	**BERYLLIUM FIELD/MOBILE**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Cheryl O. Morton

Cheryl O Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision21: 05/15/2023

Date Issued: 07/01/2023

AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

NVL Laboratories, Inc.
4708 Aurora Ave N, Seattle, WA 98103-6516

Laboratory ID: LAP-101861
Issue Date: 07/01/2023

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

Unique Scopes Laboratory Accreditation Programs (Unique Scopes)

Initial Accreditation Date: 04/01/2013

Unique Scopes Scope Category	Field of Testing (FOT)	Component, parameter or characteristic tested	Method	Method Description *(for internal methods only)*
Consumer Product Testing	Lead in Paint and Other Similar Surface Coatings	Paint	CPSC-CH-E1003-09	-
	Lead in metal	Solid	CPSC-CH-E1001-08	-
	Lead in non-metal	Solid	CPSC-CH-E1002-08	-

A complete listing of currently accredited Unique Scopes laboratories is available on the AIHA LAP, LLC website at: *http://www.aihaaccreditedlabs.org*

AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

NVL Laboratories, Inc.
4708 Aurora Ave N, Seattle, WA 98103-6516

Laboratory ID: LAP-101861
Issue Date: 07/01/2023

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air and composited wipes analyses are not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

Initial Accreditation Date: 02/07/1997

Component, parameter or characteristic tested	Technology sub-type/Detector	Method	Method Description *(for internal methods only)*
Airborne Dust	AA	EPA SW-846 3051	N/A
		EPA SW-846 7000B	N/A
Paint	AA	EPA SW-846 3051	N/A
		EPA SW-846 7000B	N/A
Settled Dust by Wipe	AA	EPA SW-846 3051	N/A
		EPA SW-846 7000B	N/A
Soil	AA	EPA SW-846 3051	N/A
		EPA SW-846 7000B	N/A

A complete listing of currently accredited ELLAP laboratories is available on the AIHA LAP, LLC website at: http://www.aihaaccreditedlabs.org

AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

NVL Laboratories, Inc.
4708 Aurora Ave N, Seattle, WA 98103-6516

Laboratory ID: LAP-101861
Issue Date: 07/01/2023

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

Environmental Microbiology Laboratory Accreditation Program (EMLAP)

Initial Accreditation Date: 02/01/1997

EMLAP Scope Category	Field of Testing (FOT)	Component, parameter or characteristic tested	Method	Method Description *(for internal methods only)*
Fungal	Air - Direct Examination	Air	SOP 12.133	In House: Analysis of Spore Trap
Fungal	Bulk - Direct Examination	Bulk	SOP 12.133	In House: Analysis of Spore Trap

A complete listing of currently accredited EMLAP laboratories is available on the AIHA LAP, LLC website at: *http://www.aihaaccreditedlabs.org*

AIHA Laboratory Accreditation Programs, LLC

SCOPE OF ACCREDITATION

NVL Laboratories, Inc.
4708 Aurora Ave N, Seattle, WA 98103-6516

Laboratory ID: LAP-101861
Issue Date: 07/01/2023

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

Industrial Hygiene Laboratory Accreditation Program (IHLAP)

Initial Accreditation Date: 04/01/1997

IHLAP Scope Category	Field of Testing (FOT)	Technology sub-type/Detector	Published Reference Method/Title of In-house Method	Component, parameter or characteristic tested
Asbestos/Fiber Microscopy Core	Phase Contrast Microscopy (PCM)	-	NIOSH 7400	Asbestos/Fibers
Miscellaneous Core	Gravimetric	-	NIOSH 0500	Total Dust
Miscellaneous Core	Gravimetric	-	NIOSH 0600	Respirable Dust
Spectrometry Core	Atomic Absorption	FAA	NIOSH 7082	Lead
Spectrometry Core	Inductively-Coupled Plasma	ICP/AES	NIOSH 7300	RCRA Metals
Spectrometry Core	X-ray Diffraction (XRD)	-	NIOSH 7500	Silica

A complete listing of currently accredited IHLAP laboratories is available on the AIHA LAP, LLC website at: *http://www.aihaaccreditedlabs.org*

Certificate of Completion

This is to certify that

Tanveer E. Khan

has satisfactorily completed
4 hours of online refresher training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

189935
Certificate Number

Instructor: Sue Maas

Jun 22, 2023 Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Terracon
Explore with us

Facilities
Environmental
Geotechnical
Materials

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Tanveer E Khan

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead-based paint activities as a

Risk Assessor

Certification #	Issuance Date	Expiration Date
6110	01/10/2023	01/13/2026

Certificate of Completion

This is to certify that

Cameron Patterson

has satisfactorily completed
4 hours of online refresher training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

192135
Certificate Number

Instructor: Tracy Bockla

Dec 27, 2023 Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Terracon
Explore with us

- Facilities
- Environmental
- Geotechnical
- Materials

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Activities Program

Cameron Cole Patterson

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead based paint activities as a ***Inspector***.

Certification #	Issuance Date	Expiration Date
24-0007	01/05/2024	01/05/2027

Certificate of Completion

This is to certify that

Jaren M. Hutchings

has satisfactorily completed
24 hours of training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

192193
Certificate Number

Instructor: Tracy Bockla

Jan 9 - 11, 2024 Expires in 1 year.
Date(s) of Training

Exam Score: 96%
(if applicable)

Terracon
Explore with us

- Facilities
- Environmental
- Geotechnical
- Materials

APPENDIX B

Summary of Geotechnical Conditions

Summary of Geotechnical Conditions
SR544/Nooksack River Overflow Culvert Permanent Repair

The following is a summary of the geotechnical conditions and their potential impacts on the construction of the SR544/Nooksack River Overflow Culvert Permanent Repair project.

SUBSURFACE SOIL AND ROCK CONDITIONS

The following four Engineering Stratigraphic Units (ESUs) have been interpreted for design and construction of the various elements included in the project. The ESUs at the site consist of embankment fill and variable recessional outwash. The ESU descriptions are presented in the general order in which they occur from the surface. The individual boring logs should be referred to for more detailed information regarding the ESU descriptions and elevations.

ESU 1 – Gravel Fill and Gravelly Alluvium: ESU 1 is interpreted to be a combination of embankment fill and alluvial gravel that was encountered in all of our explorations. In general, ESU was encountered in the upper 15 to 35 feet of our explorations, with localized zones ESU encountered throughout the explorations in borings H-1vwp-24, H-3-24, H-4sw-25, and H-7-25. ESU 1 generally consists of grey well graded sand with gravel to well graded gravel in a moist to wet, medium dense to very dense condition.

ESU 2 – Sandy Alluvium: ESU 2 was encountered in all explorations at varying depths, generally underlying and/or interbedded with ESU 1. ESU 2 generally consists of sand with variable silt and gravel contents. Because of the variability of the silt and gravel fractions, this unit has been divided into two sub-ESUs:

ESU 2a: Brownish grey to grey silty sand with variable gravel in a moist to wet, dense condition

ESU 2b: Grey sand with variable gravel in a moist to wet, medium dense to dense condition

ESU 3 – Clayey Alluvium: ESU 3 was observed in borings H-1vwp-24, H-2vwp-24, H-3-24, H-5sw-25, and H-7-25. ESU 3 was encountered from 39 feet below the existing ground surface (bgs) to the fill depth explored in borings H-2vwp-24 and H-5sw-25, and from approximately 39 feet bgs to 50 to 80 feet bgs in H-1vwp-24, H-3-24, and H-7-25. This soil unit consists of grey lean and fat clay in a very soft to stiff, moist condition.

While not listed in the ESUs, it should be noted that, in borings H-3-24 and H-6sw-25, wood was encountered from 29 to 33 feet below grade. Based on the elevation and thickness of the wood, this has been interpreted to be a log that extends nearly perpendicular to the proposed scour countermeasure wall face.

Refer to Table 1 for elevations at which specific ESU's were encountered in the borings.

Table 1: Summary of ESU Elevations

Boring	ESU	Approximate Top Elevation (ft)	Approximate Bottom Elevation (ft)
H-1vw-24	1	98	80
	2a	80	70
	1	70	60
	3	60	30
	1	30	20
	3	20	10
	2b	10	0

Summary of Geotechnical Conditions
SR544/Nooksack River Overflow Culvert Permanent Repair

Boring	ESU	Approximate Top Elevation (ft)	Approximate Bottom Elevation (ft)
H-1vw-24	1	0	-10
	2a	-10	-20
	2b	-20	-22*
H-2vw-24	1	94	79
	2a	79	74
	1	74	59
	3	59	-52*
H-3-24	1	95	85
	2a	85	80
	1	80	70
	4	70	60
	3	60	45
	1	45	35
	2a	35	25
	2b	25	-22*
H-4sw-25	1	98	82
	2a	82	80
	1	80	77
	2a	77	70
	1	70	65
	2b	65	60
	3	60	50
	2b	50	45
	1	45	35
	2b	35	19*
H-5sw-25	1	98	81
	2a	81	76
	2b	76	74
	1	74	59
	3	59	-102*
H-6sw-25	1	96	65
	2b	65	55
	1	55	45
	2b	45	35
	2a	35	25
	2b	25	-20
	1	-20	-25
	2a	-25	-35
	2b	-35	-40
	2b	-40	-42*
H-7-25	1	93	60

Boring	ESU	Approximate Top Elevation (ft)	Approximate Bottom Elevation (ft)
H-7-25	3	60	35
	2b	35	25
	2a	25	24
	2b	24	35
	1	20	10
	2a	9.9	-0.1
	1	-0	-20
	2b	-20	-30
	1	-30	-40
	2a	-40	-50
	1	-50	-52*

*Elevation provided is the bottom of the boring. Bottom elevation of ESU may extend below this elevation.

GROUNDWATER AND SURFACE WATER CONDITIONS

The groundwater levels observed in the borings at the time of exploration are indicated on the boring logs. Groundwater was monitored in borings H-1vwp-19, H-3p-19, H-6p-19, H-8p-19, H-10p-19, and H-12p-19 from December 18, 2019 through May 27, 2021 using open standpipe piezometers. The measurements were recorded using electronic data loggers. High and low groundwater elevations are summarized in the table below. Well construction details and screen intervals are shown on the boring logs.

Table 2: Summary of Groundwater for Piezometer (Data through May 27, 2021)

Boring	Ground Surface Elevation (ft.)	Maximum Observed Elevation (ft)	Minimum Observed Elevation (ft)	Average Elevation (ft)
H-1vw-24	99.4	83.4	75.7	78.0
H-2vw-24	97.7	82.5	76.0	78.2

POTENTIAL IMPACTS OF SUBSURFACE CONDITIONS ON CONSTRUCTION

Temporary Excavations

Temporary slopes and/or structural shoring will be necessary for the construction of the proposed scour countermeasure walls, shaft caps, and bridge abutments. The design of these items is the responsibility of the Contractor, and the Contractor will determine the appropriate measures to ensure that all excavation work is in compliance with these requirements.

Structure excavations that cross, intersect, or are proposed immediately adjacent to existing utility trenches may encounter loose material that may be prone to sloughing and raveling and may not be suitable bearing material. Additionally, the material in existing utility trenches typically consists of granular material that may convey groundwater into adjacent excavations.

Temporary slopes may be only marginally stable during the wet season. Heavy rain or snowmelt may result in severe erosion and/or localized shallow failures of temporary slopes unless appropriate measures are taken to prevent runoff and direct precipitation from contacting exposed soils on the temporary slopes. Sources of surface or near surface water that may enter

the construction zone should be intercepted and diverted prior to beginning clearing and grading activities.

The Contractor should take appropriate measures to minimize the erosion of slopes during construction.

Sheet Pile Drivability

Gravel and cobbles are present in ESU 1, and wood was encountered in H-3-24 and H-6sw-25 at approximately 30 feet below existing grade. Based on a review of our soil samples, the wood encountered is interpreted to be a log that is likely extending nearly perpendicular to the wall face at these locations. Because the site soils are characterized as alluvium, there is a potential for additional logs and other wood debris to be encountered in the upper 40 feet of soil. The presence of cobbles logs may affect the feasibility of driving sheet piles at the site, and the installation of sheet piles may require predrilling for proper installation.

Drilled Shaft Excavations

The proposed bridge piers will be founded within ESU 2a, ESU 2b, and ESU 3. ESU 2a and 2b are are cohesionless materials that will be prone to caving. Based on our understanding of the proposed drilled shaft design requirements, we anticipate that the shafts will extend below the groundwater table. Shaft excavations below the groundwater table are prone to caving.

The granular soils at the site will likely require the use of temporary casing, drilling slurry, or a combination thereof, to maintain shaft sidewall stability during the drilling process. The loss of drilling fluid may occur in areas with significant cobbles, which may be encountered in ESU 2a and ESU 2b.

AVAILABLE GEOTECHNICAL REPORTS AND INFORMATION

The following geotechnical report is available at the Project Engineers Office or online at:

ftp://ftp.wsdot.wa.gov/contracts\

WSDOT *GEOTECHNICAL REPORT*, SR544, MP 7.54 – 7.70, XL6549, Nooksack River overflow Culvert Permanent Repair prepared by WSDOT State Geotechnical Office, August 13, 2026.

Summary of Geotechnical Conditions
SR544/Nooksack River Overflow Culvert Permanent Repair



Veronica Raub 2026.08.13 12:42:52 -07'00'

Written by:
Veronica R.L. Raub, P.E.
Senior Geotechnical Engineer

Reviewed by:
Mark A. Frye, P.E.
State Foundations Engineer

Andrew J. Fiske, P.E.
State Geotechnical Engineer
Agency Approval Authority

1

APPENDIX C

Department of Army Nationwide Permit 14

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SEATTLE DISTRICT
4735 EAST MARGINAL WAY SOUTH, BLDG 1202
SEATTLE, WA 98134-2388

June 16, 2026

Regulatory Division

Mr. Mark Stamey
WA State Department of Transportation
1019 Andis Road
Burlington, Washington 98233

Reference: NWS-2022-259-DOT
WA ST Dept of
Transportation (SR 544
Nooksack River Overflow
Culvert Repair)

Dear Mr. Stamey:

We have reviewed your application to replace the existing 37.9-foot span, 15.6-foot rise, 102.7-foot-long corrugated metal arched overflow structure beneath SR 544 with a new 123-foot-long single-span bridge in the overflow channel at/near SR 544, Whatcom County, Washington. Work includes reconstruction of the roadway and channel, temporary vehicle and pedestrian bypasses, grading, utility modifications, paving, planting, erosion and sediment control, and traffic control. In-water work during approved low-flow periods includes temporary stream diversions, cofferdams, block nets, grading, scour countermeasures, and tie-ins to the existing channel grade, with the south levee temporarily pulled back and reconstructed. Temporary impacts include 0.05 acres of wetlands and 0.03 acres of streams (25 linear feet); permanent impacts include 56 square feet of wetlands and 0.16 acres of streams (135 linear feet). Approximately 5,355 square feet of vegetated, unburied riprap would be removed, and the area would be restored with native vegetation. Temporary BMPs, including high-visibility silt fencing, will minimize sediment delivery. Based on the information provided to us, Nationwide Permit (NWP) *14, Linear Transportation Projects* (Federal Register January 8, 2026, Vol. 91, Pg. 768) authorizes your proposal as depicted on the enclosed drawings dated May 2026.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 14, Terms and Conditions* and the following special conditions:

a. In order to protect the listed threatened and endangered species in the project area, you may conduct the authorized activities in the work window as agreed to and documented in writing through consultation by the U.S. Fish and Wildlife Service and/or

National Marine Fisheries Service (Services) in any year this permit is valid. If changes to the originally authorized work window are proposed, you must re-coordinate these changes with the Services and receive written concurrence on the changes. Copies of the concurrence(s) must be sent to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, within 10 days of the date of the revised concurrence.

b. In order to meet the requirements of the Endangered Species Act (ESA) *Programmatic Biological Opinion for Washington State Department of Transportation, Preservation, Improvement, and Maintenance Activities* (National Marine Fisheries Service Reference No. 2016/00011), you must comply with the conditions included in the *WSDOT NMFS Project Notification Form* dated January 5, 2026, and the electronic approval from National Marine Fisheries Service (NMFS) dated January 30, 2026 (Reference WCRO-2016-00011-10234). The NMFS is the appropriate authority to determine compliance with ESA.

c. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the *WSDOT USFW Project Notification Form*, dated January 5, 2026, in its entirety. The U.S. Fish and Wildlife Service (USFWS) provided a Letter of Concurrence (LOC) based on this document dated January 30, 2026 (USFWS Reference Number 2024-0010117). Failure to comply with the commitments made in this consultation constitutes non-compliance with the ESA and your U.S. Army Corps of Engineers permit. The USFWS is the appropriate authority to determine compliance with ESA.

We have reviewed your project pursuant to the requirements of the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act, and the National Historic Preservation Act. We have determined this project complies with the requirements of these laws provided you comply with all of the permit general and special conditions.

The Washington State Department of Transportation (WSDOT), on behalf of the Federal Highway Administration (FHWA), completed Section 7 of the Endangered Species Act (ESA) consultation and Section 305(b) (Essential Fish Habitat (EFH)) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) consultation for the proposed activity [National Marine Fisheries Service reference [WCRO-2016-00011-10234], U.S. Fish and Wildlife Service reference [2024-0010117] (collectively called the Services)]. For the purpose of this Department of the Army authorization, we have determined the permit action will comply with the requirements of these laws provided you comply with all of the permit general conditions and Special Conditions “a” through “c.” We have determined the permit action is sufficiently addressed in their ESA and EFH consultation documents. By this letter we are advising you and the Services, in accordance with 50 CFR 402.07 and 50 CFR 600.920(b), that this agency has served as the lead Federal agency for the ESA and EFH consultation responsibilities for the activity described above.

By this letter, we are advising you FHWA completed Section 106 of the National Historic Preservation Act (NHPA) compliance for the proposed activity and is the lead Federal agency responsible for Section 106 compliance for this Department of the Army authorization.

The authorized work complies with the Washington State Department of Ecology's (Ecology) Water Quality Certification (WQC) and Coastal Zone Management Act (CZMA) consistency concurrence requirements for this NWP. No further coordination with Ecology is required. To maintain the validity of this NWP authorization, you must comply with all conditions specified in the general (or programmatic) WQC and CZMA consistency concurrence for this NWP.

You have not requested a jurisdictional determination for this proposed project. If you believe the U.S. Army Corps of Engineers does not have jurisdiction over all or portions of your project you may request a preliminary or approved jurisdictional determination (JD). If one is requested, please be aware that we may require the submittal of additional information to complete the JD and work authorized in this letter may not occur until the JD has been completed.

Our verification of this NWP authorization is valid until March 15, 2031, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work for the NWP authorization has not been completed by that date and you have commenced or are under contract to commence this activity before March 15, 2031, you will have until March 15, 2032, to complete the activity under the enclosed terms and conditions of this NWP. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit*. All compliance reports should be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Division electronically at nws.compliance@usace.army.mil. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey. Referenced documents and information about our program are available on our website at www.nws.usace.army.mil, select “Regulatory Permit Information”. Copies of this letter with enclosures will be furnished to Ms. Cori Flowers at cori.flowers@wsdot.wa.gov and Ms. Joëlle Cihak at joelle.cihak@wsdot.wa.gov. If you have any questions, please contact Mr. Brody Garner at brody.g.garner@usace.army.mil or (206) 561-7686.

Sincerely,



Matthew J. Bennett, Branch Chief
Regulatory Division

Enclosure(s)

cc:
Washington State Department of Transportation (Ms. Cori Flowers, cori.flowers@wsdot.wa.gov; Ms. Joëlle Cihak, joelle.cihak@wsdot.wa.gov)
Washington State Department of Ecology (ecyrefedpermits@ecy.wa.gov)
United States Fish and Wildlife Service (wfwoctap@fws.gov)

US Army Corps of Engineers ®
Seattle District

NATIONWIDE PERMIT 14
Terms and Conditions
2026 NWPs

Published January 8, 2026 (91 FR 768)
Effective March 15, 2026

A. Description of Authorized Activities
B. Nationwide Permit General Conditions
C. Seattle District Regional Conditions
D. Seattle District Regional Conditions for this Nationwide Permit
E. Water Quality Certification Decisions for this Nationwide Permit
F. Coastal Zone Management Consistency Decision for this Nationwide Permit

In addition to any special condition that may be required on a case-by-case basis by the District Engineer, the following terms and conditions must be met, as applicable, for a Nationwide Permit (NWP) authorization to be valid in Washington State.

A. DESCRIPTION OF AUTHORIZED ACTIVITIES

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

B. NATIONWIDE PERMIT GENERAL CONDITIONS

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation. (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows including tidal flows. The activity must not restrict or impede the passage of normal or high flows, including tidal flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance. If mats are used to minimize soil disturbance, the affected areas must be returned to pre-construction elevations, and revegetated as appropriate. In circumstances where the use of mats has caused significant soil compaction, efforts using techniques (e.g., soil reaeration techniques) to break up the compaction should be employed to return the soil to a pre-construction state prior to returning to pre-construction elevations.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency

with direct management responsibility for such river has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal permittee should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties. (a) No activity is authorized under any NWP which may have the potential to cause effects on properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects on any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or

include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activities authorized by NWPs, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, because streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where

riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have

marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed activity which may result in any discharge from a point source into waters of the United States must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by the certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed activity which may result in any discharge from a point source into waters of the United States in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed activity which may result in any discharge from a point source into waters of the United States is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge into waters of the United States, the permittee must submit a copy of the certification to the district engineer. The discharge into waters of the United States is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied (i.e., by the issuance of a water quality certification or a waiver and completion of the Section 401(a)(2) process).

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) The total acreage loss of waters of the United States for a single and complete project cannot exceed the acreage limit of the NWP with the highest specified acreage limit when multiple NWPs are used to authorize an activity.

(b) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States for that single and complete project cannot exceed the that specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14 (which has an acreage limit of 1/3 acre in tidal waters), with associated bank stabilization authorized by NWP 13 (which does not have a specified acreage limit), the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(c) If two or more of the NWPs used to authorize the single and complete project have specified acreage limits, the acreage loss of waters of the United States authorized by each of those NWPs cannot exceed the specified acreage limits of each of those NWPs. For example, if a commercial development is constructed under NWP 39 (which has a 1/2-acre limit), and the single and complete project includes the filling of a ditch authorized by NWP 46 (which has a 1-acre limit), the maximum acreage loss of waters of the United States for the construction of the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States caused the combination of the NWP 39 and NWP 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____
(Transferee)

_____
(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The successful completion of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification. (a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of waters, wetlands, and other special aquatic sites on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate. For NWP 27 activities that require PCNs because of other general conditions or regional conditions imposed by division engineers, see Note 2 of that NWP;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the compensatory mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

C. SEATTLE DISTRICT REGIONAL CONDITIONS

The following conditions apply to all NWPs for the Seattle District in Washington State.

RC 1, Project Drawings

Drawings must be submitted with a pre-construction notification (PCN). Drawings must provide a clear understanding of the proposed project, show all aquatic resources (e.g. wetlands, stormwater ponds, ditches), and how these resources will be affected. Drawings must be originals and not reduced copies of large-scale plans. Engineering drawings are not required. Existing and proposed site conditions (manmade and landscape features) must be drawn to scale.

RC 2, Construction Boundaries

Permittees must clearly mark all construction area boundaries within waters of the U.S before beginning work on projects that involve grading or placement of fill. Boundary markers and/or construction fencing must be maintained and clearly visible for the duration of construction. Permittees must avoid and minimize removal of native vegetation within waters of the U.S. (including submerged aquatic vegetation) to the maximum extent possible.

RC 3, PCNs for Activities in Areas Where There May Be Treaty-Reserved Tribal Rights

To ensure compliance with General Condition 17, Tribal Rights, non-federal permittees must submit a PCN for all NWPs associated with structures or fills in areas where Tribes have retained, via treaty, the right to fish in their usual and accustomed grounds and stations.

RC 4, Stream Loss

A PCN is required for all activities resulting in a loss of any linear feet of streams that are waters of the U.S.

RC 5, Crossings of Waters of the U.S.

A PCN is required for any activity resulting in the loss of waters of the U.S. associated with crossings, including installing, replacing, or modifying crossings, such as culverts or bridges (see NWP general condition 32).

If a culvert is proposed to cross waters of the U.S. where salmonid species are present or could be present, the project must apply the stream simulation design method from the Washington Department of Fish and Wildlife located in the Water Crossing Design Guidelines (2013, or most current version), or a design method which provides passage at all life stages at all flows where the salmonid species would naturally seek passage. If the stream simulation design method is not applied for a culvert where salmonid species are present or could be present, the applicant must provide a rationale in the PCN sufficient to establish one of the following:

a. The existence of extraordinary site conditions; or

b. How the proposed design will provide equivalent or better fish passage and fisheries habitat benefits than the stream simulation design method.

Culverts installed under emergency authorization that do not meet the above design criteria will be required to meet the above design criteria to receive an after-the-fact nationwide permit verification.

RC 6, Effects to Forage Fish Spawning Beaches, Drift Cells, and Feeder Bluffs

No NWP activity can:

a. cause more than minimal adverse effects to forage fish spawning areas or drift cells; or

b. prevent the functioning of feeder bluffs, including more than minimal adverse effects to sediment recruitment, transport, or deposition.

This regional general condition applies to all NWP activities within the Salish Sea (see Figure 1). Information regarding the location of forage fish spawning beaches is available from the Washington Department of Fish and Wildlife's (WDFW) Forage Fish Spawning Map. Information about forage fish, spawning habitats, and spawning behavior are also available through WDFW. Additional information about the importance of these species as prey species for Endangered Species Act listed salmonids can be found through the National Marine Fisheries Service.

Information regarding the location and movement of drift cells, shoreline stability, and coastal landforms, to include feeder bluffs, is available at the Washington State Department of Ecology's Coastal Atlas Map. These maps are resources that can be used to help identify the location of forage fish spawning areas, drift cells, and feeder bluffs; they are not a substitute for site-specific data.

RC 7, Bank Stabilization

All projects including new or maintenance bank stabilization activities in waters of the U.S. where salmonid species are present or could be present, require PCN to the District Engineer (see NWP general condition 32). The PCN must include a statement describing how the project incorporates design criteria to avoid and minimize adverse environmental effects.

For new bank stabilization projects only, the following must be submitted to the Corps:

a. The cause of the erosion and the distance of any existing structures from the area(s) being stabilized.

b. The type and length of existing bank stabilization within 300 feet of the proposed project.

c. A description of current conditions and expected post-project conditions in the waterbody.

In addition, the results from any relevant geotechnical investigations may be submitted with the PCN if they describe current or expected conditions in the waterbody.

Note: For the purpose of this RC, new bank stabilization includes any bank stabilization that is expanding either waterward, vertically, or linearly along the shoreline regardless of whether such expansion is occurring to existing bank stabilization.

RC 8, Bank Stabilization Design Considerations

Bank stabilization activities, including maintenance activities, shall utilize nature-based solutions (e.g. living shorelines, vegetative stabilization, bioengineering, including but not limited to large woody material with intact root wads), and other soft bank stabilization approaches. These methods should be employed to the maximum extent practicable before considering hard bank stabilization methods such as bulkheads and rock revetments.

RC 9, Limitations on New Bank Stabilization Within the Salish Sea

Activities involving more than 50 linear feet of new bank stabilization within waters of the U.S. in the Salish Sea (see Figure 1) cannot be authorized by any NWP. This condition includes new bank stabilization associated with maintenance activities that would expand previously authorized armoring length or the structure's footprint or dimensions either waterward, vertically, or linearly within the geographic jurisdiction of the U.S. Army Corps of Engineers.

Note: For the purpose of this RC, new bank stabilization includes any bank stabilization that is expanding either waterward, vertically, or linearly along the shoreline regardless of whether such expansion is occurring to existing bank stabilization.

RC 10, New Bank Stabilization in Tidal Waters of Puget Sound

Activities involving new bank stabilization in tidal waters in Water Resource Inventory Areas (WRIAs) 8, 9, 10, 11, and 12 (within the areas identified on Figures 2a through 2e) cannot be authorized by an NWP.

Note: For the purpose of this RC, new bank stabilization includes any bank stabilization that is expanding either waterward, vertically, or linearly along the shoreline regardless of whether such expansion is occurring to existing bank stabilization.

RC 11, Commencement Bay

No permanent losses of wetlands or mudflats within the Commencement Bay Study Area may be authorized by any NWP (see Figure 3).

D. SEATTLE DISTRICT REGIONAL CONDITIONS FOR THIS NATIONWIDE PERMIT

None.

E. WATER QUALITY CERTIFICATION DECISIONS FOR THIS NATIONWIDE PERMIT

Activities authorized by this NWP that may result in a discharge from a point source into waters of the U.S. are required to have a water quality certification (WQC) from the appropriate certifying authority. The appropriate certifying authority is the water pollution control agency with jurisdiction over the water of the U.S. at the point where the discharge originates. The Washington State Department of Ecology (Ecology) is the certifying authority for activities on public and private lands of Washington State, and all federal lands not under exclusive Federal jurisdiction. The U.S. Environmental Protection Agency (EPA) is the certifying authority on behalf of non-authorized tribes and on lands of exclusive Federal jurisdiction[1]. Tribes with "treatment in a similar manner as a state" (authorized tribes) are the certifying authority on their tribal land. To date, there are 13 authorized tribes in Washington State.

Below are the WQC decisions for this nationwide permit made by all certifying authorities in Washington State. The applicable decision is the one made by the appropriate certifying authority.

State of Washington Department of Ecology Water Quality Certification Decision for this NWP

Granted with conditions. Ecology individual WQC is required for projects or activities authorized under this NWP if:

1. The project or activity is in a known cleanup site; or

2. The project or activity impacts more than 1/3 acre of waters; or

[1] An inventory report compiled by the U.S. General Services Administration for federal properties as of 1962 identifies properties that may contain exclusive federal jurisdiction. This document is accessible at https://www.congress.gov/116/meeting/house/110088/documents/HHRG-116-II13-20191017-SD044.pdf. The EPA notes that this inventory report is not all-inclusive and that the information contained within it has not been recently confirmed and/or updated. Please contact EPA Region 10 at R10-401-Certs@epa.gov with questions regarding the jurisdictions where this certification decision applies.

3. The Corps issues multiple authorizations for one federal permit application where the combined impacts to waters exceed Ecology's lowest acreage threshold of an NWP used. This condition does not apply when NWP 14 is combined only with NWP 27.

Note. Ecology's definition of impacts includes direct, indirect, permanent and temporary impacts.

A. Description of impacts to waters of the state

Ecology defines impacts as direct, indirect, permanent or temporary impacts to waters of the state. Activities that impact waters of the state may include temporary fill activities such as placement of temporary stream crossings, or permanent impacts such as placement of permanent structures in waterways.

Ecology defines in-water activities are any activities below the ordinary high water mark (OHWM) regardless of the presence or absence of water.

Loss of streambed refers to the permanent alteration of the stream channel bed from activities including but not limited to filling, excavation, or drainage impacting aquatic habitat and water flow. For example, straightening a meandering stream or placing a portion of a stream in a pipe is considered a loss.

For impacts to waters of the state, project proponents are required to show that they have followed the mitigation sequence and have first avoided and minimized impacts to aquatic resources wherever practicable before proposing compensatory mitigation. Project proponents should refer to the most current guidance when developing wetland mitigation plans: Wetland Mitigation in Washington State, Parts 1 and 2 (available on Ecology's website).

B. Projects or activities where programmatic WQC is denied

Due to the potential loss of state waters, including wetlands, and the lack of adequate information regarding the discharge types, quantities, and specific locations, programmatic WQC is denied for projects or activities that meet the criteria below:

1. Projects or activities affecting the following aquatic resources cannot be authorized by this programmatic WQC and will require individual WQC unless authorized by *NWP 20 – Response Operations for Oil and Hazardous Substances*.

    A. Wetlands with special characteristics (as defined in the Washington State Wetland Rating Systems for western and eastern Washington, Ecology Publications #14-06-029 and #14-06-030):
        i. Estuarine wetlands.
        ii. Wetlands of High Conservation Value.
        iii. Bogs.
        iv. Old-growth forested wetlands and mature forested wetlands.
        v. Wetlands in coastal lagoons.
        vi. Wetlands in dunal systems along the Washington coast.
        vii. Vernal pools.
        viii. Alkali wetlands.
        ix. Fens, aspen-dominated wetlands, camas prairie wetlands.
        x. Category I wetlands.
        xi. Category II wetlands with a habitat score ≥ 8 points.

    B. Activities resulting in a loss of eelgrass (Zostera marina) beds.

2. Projects or activities that will occur in a 303(d) listed segment of a waterbody or upstream of a listed segment and may result in further exceedances of the specific listed parameter cannot be authorized by this programmatic WQC and will require individual WQC.

To determine if your project or activity is in a 303(d) listed segment of a waterbody, visit Ecology's Water Quality Assessment webpage for maps and search tools. You can contact Ecology for technical assistance as needed.

3. Projects or activities that result in the loss of more than 300 linear feet of streambed cannot be authorized by this programmatic WQC and will require individual WQC.

C. Notification of coverage under this programmatic WQC

For projects where pre-construction notification is required to the Corps, project proponents must submit a copy of the pre-construction notification to Ecology via email at ecyrefedpermits@ecy.wa.gov. Project proponents should identify the NWP(s) under which they are seeking coverage.

For projects where pre-construction notification is not required, project proponents must comply with all applicable Ecology state general and nationwide permit specific conditions as outlined in this programmatic WQC decision.

D. State General Conditions for all Nationwide Permits

To ensure compliance with applicable water quality requirements in addition to all of the U.S. Army Corps of Engineers' (Corps) national and Seattle District's regional permit conditions, the following state general Water Quality Certification (WQC) conditions **apply to all NWPs granted with conditions** in Washington where Ecology is the certifying authority. If a project proponent is unable to meet any of the following conditions, an individual WQC is required.

1. The project proponent must ensure all projects or activities will not cause, and are not likely to cause or contribute to an exceedance of the State water quality standards, (Chapter 173-201A WAC) or sediment management standard (Chapter 173-204 WAC).

2. All projects involving land disturbance or impervious surfaces must implement stormwater pollution prevention or control measures to avoid discharge of pollutants in stormwater runoff to waters.

    a. For land disturbances during construction, the project proponent must obtain and implement permits (e.g., Construction Stormwater General Permit) where required and follow Ecology's current stormwater manual.

    b. Following construction, prevention or treatment of on-going stormwater runoff from impervious surfaces shall be provided.

    Note: Ecology's Stormwater Management and Design Manuals and stormwater permit information are available on Ecology's website.

EPA's Water Quality Certification Decision for this NWP

Granted certification with conditions.

Condition 1: Plan Development and Implementation for Projects that require Pre-Construction Notification (PCN)

Prior to construction for projects that require a PCN, the project proponent shall develop a plan that includes a copy of the PCN and the following information (if not already included in the PCN):

- Time stamped photo-documentation of the baseline conditions (*i.e.*, 50 feet upstream of the project area, within the project area, and 100 feet downstream of the project area).
- Identifies on a site map, as applicable:

    - Project site with all waters of the U.S. demarcated. Identify all locations where the project will cross jurisdictional waterbodies and identify the ordinary high-water mark and/or wetland boundaries; the planned work area where wetlands/aquatic resources will be removed, disturbed, and/or protected; buffer zones; and areas to be restored/reclaimed, as well as site access points and other approved work areas.
    - Staging areas and stockpiling of materials and equipment, including locations for containment booms and/or absorbent materials, and/or hazardous materials. Stockpiles
    - (*e.g.*, sediment, soil, or other construction materials) shall be stored at least 50 feet from where it may enter waters of the U.S.
    - Construction access points.
    - Disturbance limits.
    - Locations where site dredging and placement of dredged material activities will occur.
    - Locations where dewatering activities will occur including as applicable locations of cofferdams, temporary berms, piling, and/or dikes.
    - Locations of undergrounding or directional drilling (including bore pits).
    - Locations where hazardous materials are stored. Identify where containment booms and/or absorbent materials are located for corrective action if needed. Hazardous materials shall be stored in leak-proof containers with appropriate secondary containment measures (*e.g.*, spill berms, dikes, spill containment pallets, absorbent materials).
    - Any silt/sediment fencing.
    - Photo-reference sites. The project proponent shall indicate the directional view and location where photos were taken on the site map.
- A description of how the site will be restored to pre-construction conditions, as applicable, including measures that will be used to promote and maintain:
    - stream hydrology and stability.
    - aquatic resource composition.
    - diversity of native species existing on site and as introduced via restoration activities.
    - stability of soils.
    - establishment of vegetation at the same percent cover as pre-construction activities.
- The timeframe/schedule for revegetation following completion of construction. Revegetation should occur at the earliest practicable date following completion of construction. Drill seeding is the preferred method, where applicable.
- Non-native and invasive species shall not be used for restoration activities.
- Includes the following, as applicable:
    - **Cofferdams, temporary berms, pilings, and/or dikes**: Describe installation and maintenance practices for any cofferdams, temporary berms, pilings, and/or dikes.
    - **Dredging**: Describe how contaminated materials will be managed (*e.g.*, sediment testing data and information to identify whether sediments are clean or contaminated), if included in the project dredged area. Describe methods for minimizing dredging impacts (*i.e.*, sedimentation resuspension) in the water column.
    - **Erosion and sediment control**: Identify the types and locations of sediment and erosion control features that shall be used onsite, including sediment control fences, haybales, heavy mud mats, and/or other structures. Biodegradable blankets and/or loose-weave mesh shall be used for erosion control matting. If using velocity dissipation structures (e.g., riprap aprons, check dams etc.), structures shall be constructed to include both peak flow rates and total stormwater volume, and provide protection from the erosive potential of high-velocity flows to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points. The project proponent shall ensure all erosion and sediment control measures are in place prior to the onset of construction.
    - **Bank stabilization and channel modification**. If the project requires bank stabilization or stream channel modification, include pre-construction cross sections. If the project includes steep bank slopes of 3:1 or greater, include revetment cross sections. Bioengineering techniques suitable for steep slope disturbances are preferred (e.g., vegetated toe, bioengineered boulder toe, etc.). Slopes of disturbed banks shall be designed and installed to not reduce the bottom width of the stream.
    - **Dewatering**: Work shall be completed in the dry unless coordinated with EPA Region 10. Describe methods for dewatering, including the equipment that would be used to conduct

the dewatering activities. Identify the locations and timing, including length of time the area is to be dewatered. Explain removal method of the temporary structures and/or fill and what measures will be taken to minimize downstream turbidity and adaptive management measures that will be taken and employed to prevent the draining of waters of U.S., including wetlands.
    - **Ditching and trenching**: Explain ditching/trenching and material placement techniques and stabilization methods to be employed, as well as timing. In wetlands, the top 6 to 12 inches of the ditch/trench shall be backfilled with topsoil from the trench, unless other techniques are approved. Include activity timing needs for ditching and stabilization.
    - **Undergrounding or directional drilling**: Describe measures taken to prevent, contain and cleanup any inadvertent return of drilling fluid to the surface (i.e., "frac-outs").
- Submit the plan to EPA Region 10 at R10-401-Certs@epa.gov at least 30 days prior to commencing construction activities.

During construction for projects that require a PCN, the project proponent shall:

- Visually inspect construction activities daily.
- Prevent sediment, debris, silt, sand, cement, concrete, oil or petroleum, organic materials, or other construction debris or wastes from entering waters of the U.S. The discharge of unset cement, concrete, grout, or water that has contacted uncured concrete or cement, or related washout to waters of the U.S. is prohibited.
- Maintain documentation onsite that all equipment was cleaned of dirt, mud, and other materials prior to arriving on the project site.
- Inspect all equipment daily and prior to entering any waters of the U.S. for oil, gas, diesel, anti-freeze, hydraulic fluid, and other petroleum leaks. If the project proponent detects a leak from any equipment, they shall immediately remove the equipment from waters of the U.S.; and within 24 hours of detection of a leak, repair the equipment in a staging area or move it offsite.
- Limit vegetation clearing and disturbance to waters. Limit the clearing and grubbing of vegetation and disturbance to areas demarcated on the site map submitted as part of the vegetation restoration and monitoring plan. The boundaries of vegetation to protect shall be flagged in the field prior to beginning construction activities.
- Limit restoration of the channel bed to pre-existing contours and conditions. Any proposed deviations must be specified in advance. For example, if any improvements will be made using natural channel design.
- Photo-document any failures or increased turbidity due to construction activities.
    - Within 24 hours of observing a failure or marked increase in turbidity associated with construction, the project proponent shall remedy and implement any additional adaptive management measures to stabilize the activity and prevent further unauthorized discharges into waters of the U.S. The project proponent shall photodocument the failure (*i.e.*, 50 feet upstream of failure, at the incident site, and at least 100 feet downstream of the failure) and the adaptive management measures taken immediately following implementation. The project proponent shall take remediation condition photos at the same location(s) and direction(s) as in the failure condition photos.
    - Within 48 hours of observing any failure, the project proponent shall provide EPA Region 10 with the required photo-documentation, and descriptions of all observed failures and implemented remedies.
    - Within three weeks of observing a failure, the project proponent shall provide EPA Region 10 with a description of the impacts and effectiveness of the employed adaptive management measures.
- Carry out as applicable:
    - **Erosion control**: Inspect sediment and erosion control measures daily during project implementation and within 12 hours of precipitation events. After construction is complete, remove sediment and erosion control structures once vegetation is established to the same percent cover as pre-construction conditions, unless they are needed for long term stabilization purposes.
    - Dewatering: Assess all dewatering measures within 24 hours after a severe storm event.

    - Post construction for projects that require a PCN, the project proponent shall, as applicable:
- Submit a post-construction report, as defined below, within 90 days of completing construction activity to EPA Region 10 at R10-401-Certs@epa.gov or, if the Corps requires a post-construction report for the project activity, the applicant may submit that report to EPA to fulfill this post-construction requirement. The project proponent shall include the following items in the post-construction report:
    - Construction dates.
    - As-built drawings.
    - Documentation of site restoration activities using photographs and any field data sheets showing that the site was restored to pre-existing conditions or better. Include photographs of the site restoration areas on a map.
    - Any water quality data gathered before, during, and post-construction and associated maps showing the sample locations.
    - A description of any adaptive management strategies that were employed during construction, with a focus on strategy effectiveness.
    - Details on the removal of any sediment and erosion control structures, unless they are needed for long term stabilization purposes.
    - Effectiveness of the plan developed and implemented as required under this condition, and recommendations to remedy any deficiencies in plan development and implementation where employed measures were ineffective.
- For activities that require dredging, submit a copy of the as-builts and a post dredged and disposal report within 45 days of each dredging or disposal event to EPA Region 10 at R10-401-Certs@epa.gov. The project proponent shall include the following items in the post-dredged and disposal report:
    - Dredging and disposal dates.
    - Updated site map displaying the disposal location(s).
    - Dredging and disposal volumes.
    - Water quality monitoring data.
    - Post-dredged bathymetry.
    - Updated site maps displaying any new ditches, spoil piles, widths, and depths.

Condition 2: Special Aquatic Resources
Projects or activities expected to have potential discharges into the below special aquatic resources areas on tribal lands in Alaska, Idaho, Oregon, and Washington are not covered by this certification and applicants must request a project-specific CWA Section 401 certification from EPA Region 10 consistent with 40 C.F.R. § 121.5.

- **Wetlands classified as peatlands**: For the purposes of this condition, peatlands are permanently or seasonally waterlogged areas containing organic soils classified as a Histosol with a specific thickness of an accumulation of peat (i.e., organic matter) and include fens, bogs and muskegs.[2]
- **Natural Springs**: Within 100 feet of the water source in natural spring areas. For the purposes of this condition, a spring water source is defined as any location where there is flow emanating

[2] It is a general rule that a soil is classified as an organic soil (Histosol) if more than half of the upper 80 cm (32 inches) of the soil is organic or if organic soil material of any thickness rests on rock or on fragmental material having interstices filled with organic materials. Generally, organic soil materials have organic carbon content by weight of 12 percent or more. See the following for more information on what constitutes "organic soil material," limits between Histosols and soils of other orders, problematic hydric soils situations, and other indicators to identify peatlands: Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436. https://www.nrcs.usda.gov/resources/guides-andinstructions/soil-taxonomy; United States Department of Agriculture, Natural Resources Conservation Service. 2025. Hydric soils of problematic conditions and altered materials, Version 1.0. https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/11824; United States Department of Agriculture, Natural Resources Conservation Service. 2024. Field Indicators of Hydric Soils in the United States, Version 9.0. https://www.nrcs.usda.gov/sites/default/files/2024-09/Field-Indicators-of-Hydric-Soils.pdf

from a distinct point at any time during the growing season. Some examples of spring-fed wetlands are hanging gardens. Some examples of spring-fed headwater slopes are peat-accumulating wet meadows and fens (see above). These resources may be identified using U.S. Fish and Wildlife Service's online digital National Wetland Inventory maps, or other aquatic resource mapping tools.

- **Riffle and Pool Complexes**: For the purposes of this condition, riffle and pool complexes are steep gradient sections of streams recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. Pools are characterized by a slower stream velocity, a steaming flow, a smooth surface, and a finer substrate.

Specific Condition for Bridges for NWPs 3, 14, 15, 57, 58 and 60
Project proponents shall use an established bridge analysis and hydraulic design tool when designing and constructing bridges (e.g., HEC-RAS, FHWA, etc.). Bridges shall be constructed in a manner such that stormwater does not drain directly into the waterbody. Bridges shall span greater than or equal to 1.2 times the bankfull width and adjacent wetlands of the affected waterbody, where feasible. Crossings shall be placed perpendicular to the direction of the stream flow where possible and account for potential future lateral migration in the stream, unless the project proponent can document that this would result in increased impacts to aquatic resources or compromise the safety of the structure.

Confederated Tribes of the Chehalis Reservation's Water Quality Certification Decision for this NWP

Waived

Confederated Tribes of the Colville Reservation's Water Quality Certification Decision for this NWP

Waived

Jamestown S'Klallam Tribe's Water Quality Certification Decision for this NWP

Denied

Kalispel Indian Community's Water Quality Certification Decision for this NWP

Waived

Lummi Tribe of the Lummi Reservation's Water Quality Certification Decision for this NWP

Denied

Makah Indian Tribe's Water Quality Certification Decision for this NWP

Denied

Port Gamble S'Klallam Tribe's Water Quality Certification Decision for this NWP

Waived

Puyallup Tribe of Indian's Water Quality Certification Decision for this NWP

Denied

Quinault Indian Nation's Water Quality Certification Decision for this NWP

Denied

Spokane Tribe's Water Quality Certification Decision for this NWP

Waived

Squaxin Island Tribe's Water Quality Certification Decision for this NWP

Denied

Swinomish Indian Tribal Community's Water Quality Certification Decision for this NWP

Denied

Tulalip Tribes' Water Quality Certification Decision for this NWP

Denied

F. COASTAL ZONE MANAGEMENT CONSISTENCY DECISION FOR THIS NATIONWIDE PERMIT

Ecology is the State of Washington's designated Coastal Zone Management agency. The below decision regarding the consistency of the activity authorized by this NWP with the enforceable policies of the State's Coastal Zone Management Program is applicable within the State's Coastal Zone.

Concur except where:

1. The project or activity is in a known cleanup site; or
2. The project or activity impacts more than 1/3 acre of waters; or
3. The Corps issues multiple authorizations for one federal permit application where the combined impacts to waters exceed 1/3 acre; or
4. There is a preemption of local or state permit requirements necessary to demonstrate compliance with the CZMP enforceable policies.

Note: Ecology's definition of impacts includes direct, indirect, permanent and temporary impacts.

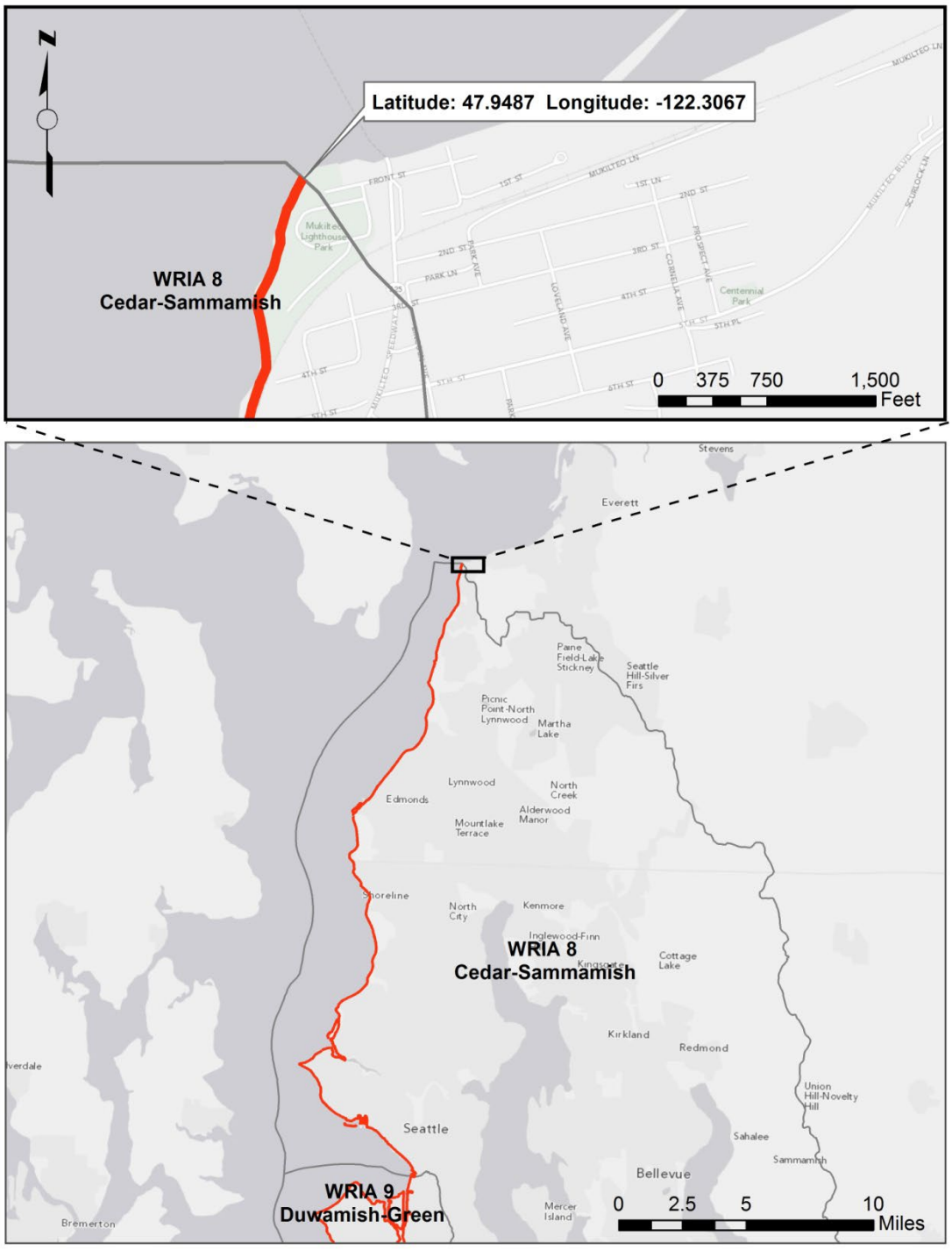
Seattle District Regional Conditions Figures for the 2026 NWPs

Figure 1. RCs 6 and 9 – Salish Sea

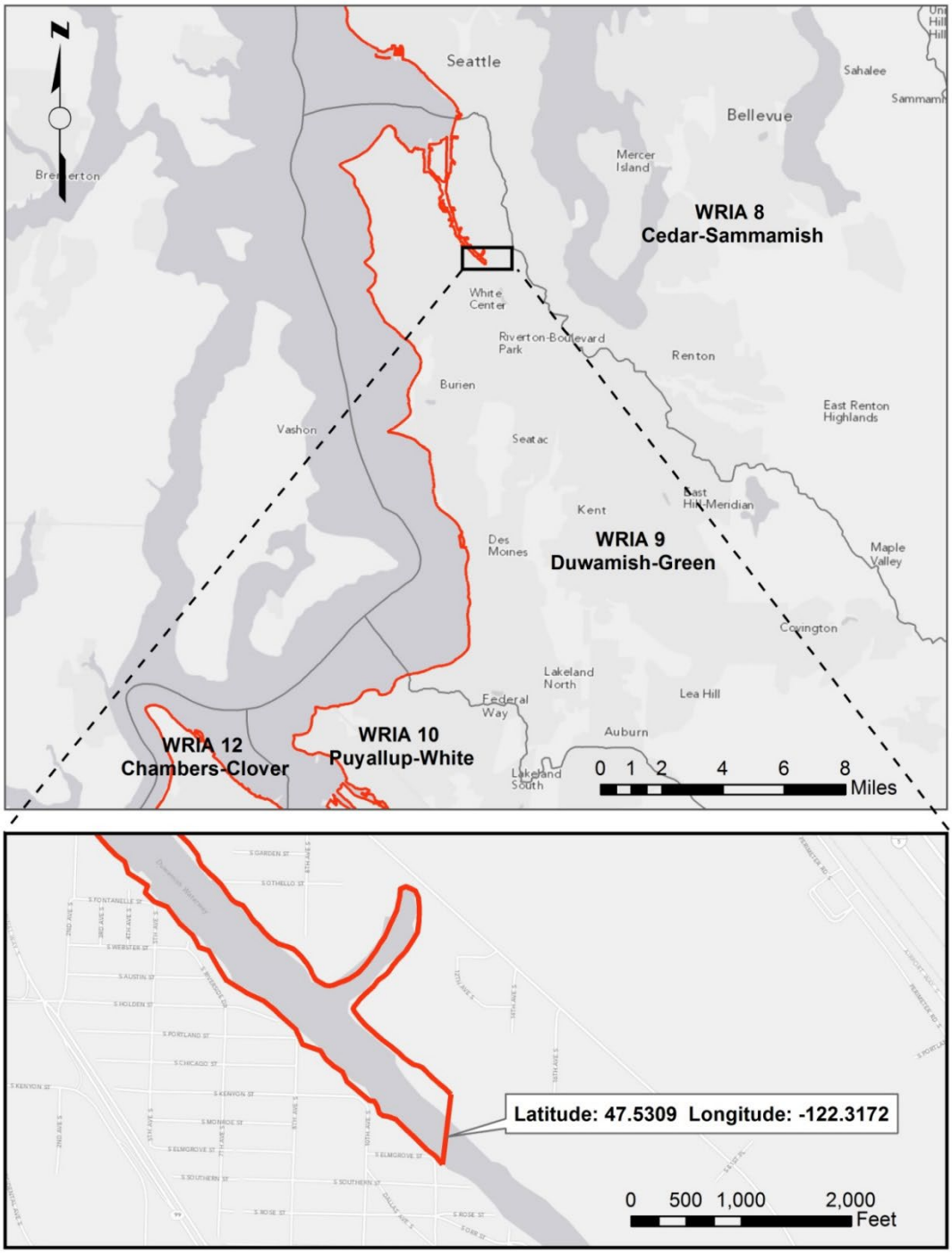


Figure 2: RC 10 - WRIAs 8, 9, 10, 11, and 12

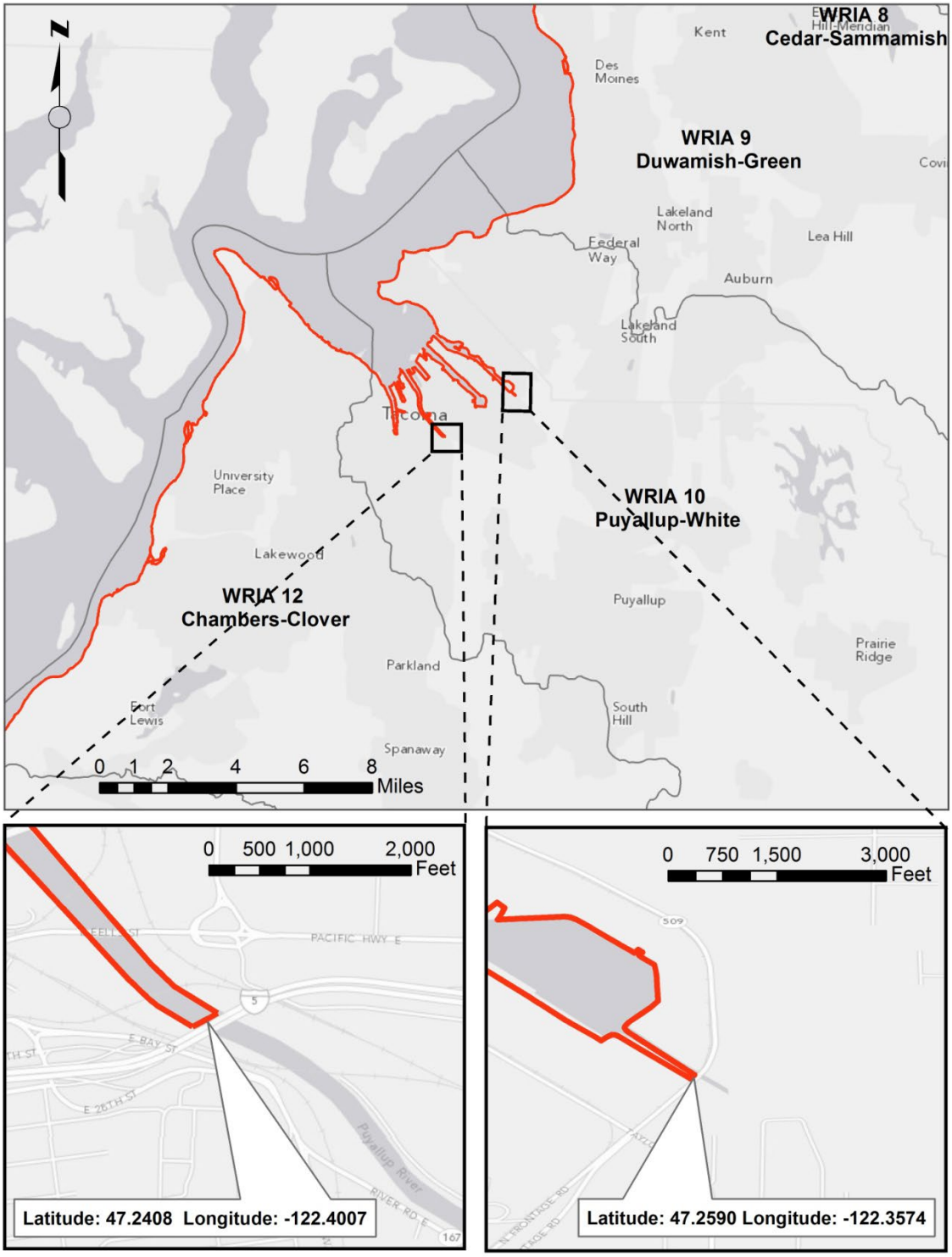
a. WRIA 8



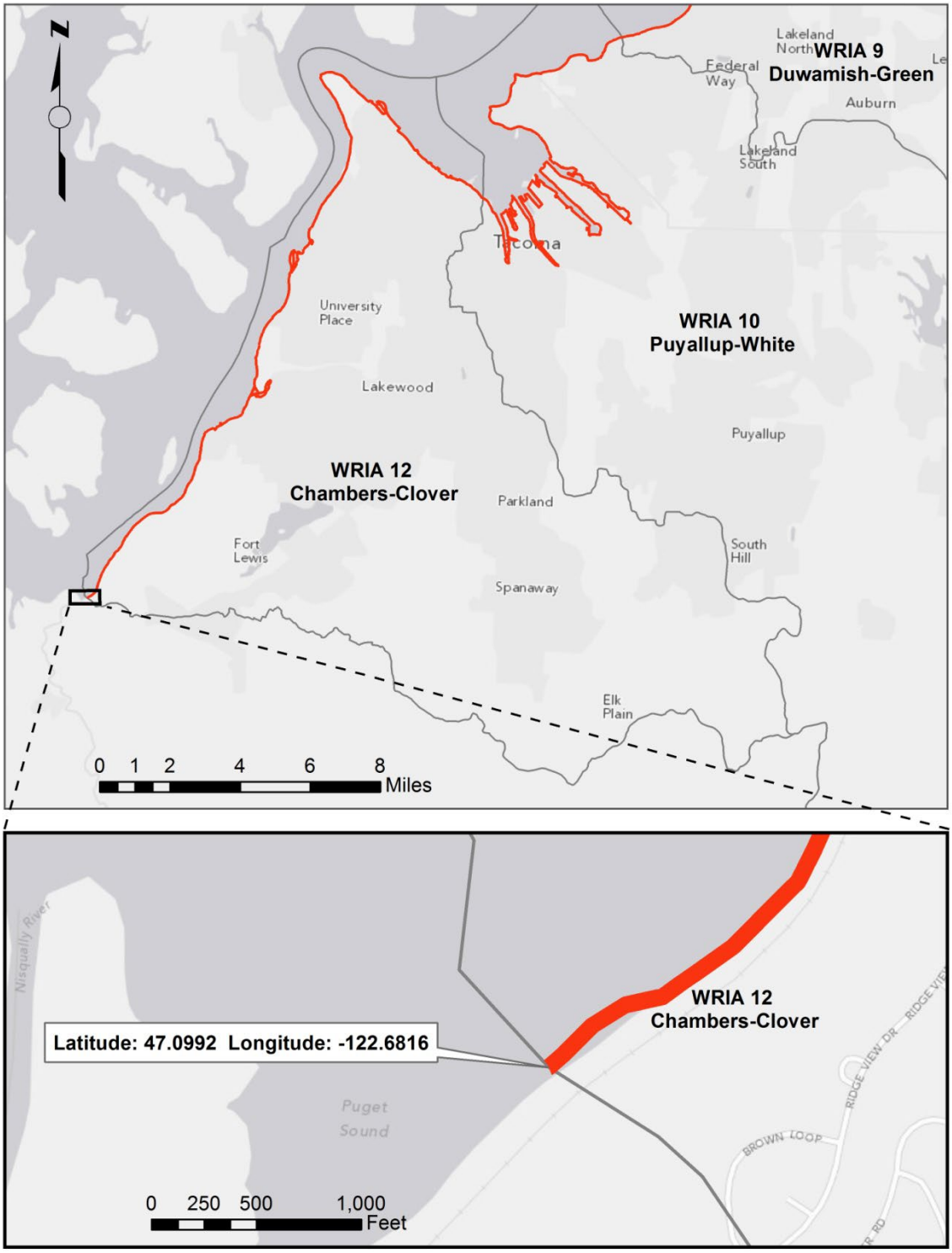
b. WRIA 9


N
Seattle
Bellevue
Sahalee
Mercer Island
Bremerton
WRIA 8
Cedar-Sammamish
White Center
Riverton-Boulevard Park
Renton
Burien
East Renton Highlands
Vashon
Seatac
East Hill-Meridian
Kent
Des Moines
WRIA 9
Duwamish-Green
Maple Valley
Covington
Lakeland North
Lea Hill
Federal Way
Auburn
WRIA 12
Chambers-Clover
WRIA 10
Puyallup-White
Lakeland South
0 1 2 4 6 8
Miles
Latitude: 47.5309 Longitude: -122.3172
0 500 1,000 2,000
Feet

c. WRIA 10


N
WRIA 8
Cedar-Sammamish
Kent
Des Moines
WRIA 9
Duwamish-Green
Lakeland North
Federal Way
Lea Hill
Auburn
Lakeland South
Tacoma
University Place
WRIA 10
Puyallup-White
Lakewood
WRIA 12
Chambers-Clover
Puyallup
Prairie Ridge
Parkland
Fort Lewis
South Hill
Spanaway
0 1 2 4 6 8 Miles
0 500 1,000 2,000 Feet
PACIFIC HWY E
E BAY ST
E 26TH ST
Puyallup River
RIVER RD E
Latitude: 47.2408 Longitude: -122.4007
0 750 1,500 3,000 Feet
509
Latitude: 47.2590 Longitude: -122.3574

d. WRIA 12


N
Lakeland North
WRIA 9
Duwamish-Green
Federal Way
Auburn
Lakeland South
Tacoma
University Place
WRIA 10
Puyallup-White
Lakewood
Puyallup
WRIA 12
Chambers-Clover
Parkland
Fort Lewis
South Hill
Spanaway
Elk Plain
0 1 2 4 6 8
Miles
Nisqually River
WRIA 12
Chambers-Clover
Latitude: 47.0992 Longitude: -122.6816
Puget Sound
RIDGE VIEW DR
BROWN LOOP
0 250 500 1,000
Feet

e. WRIA 11

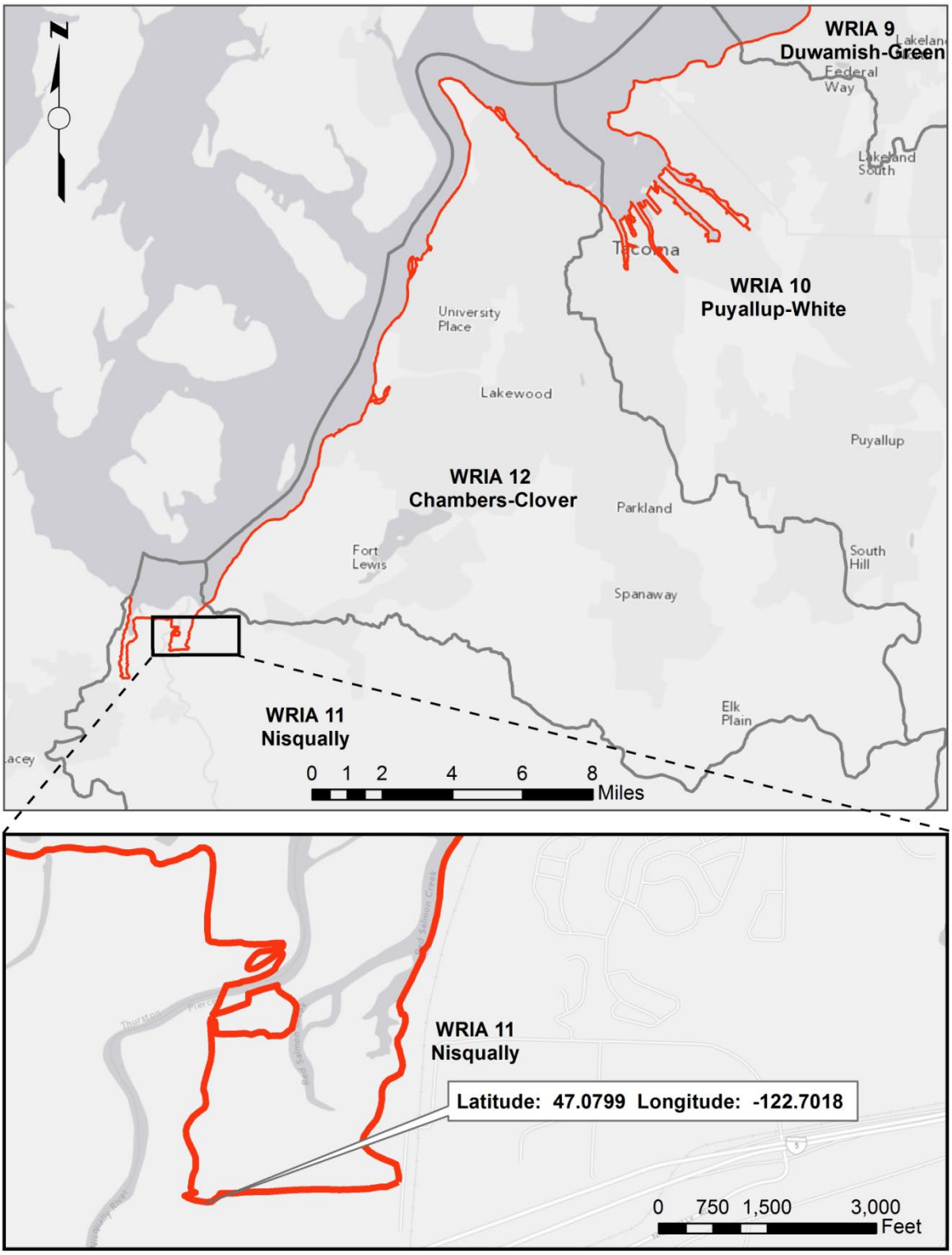
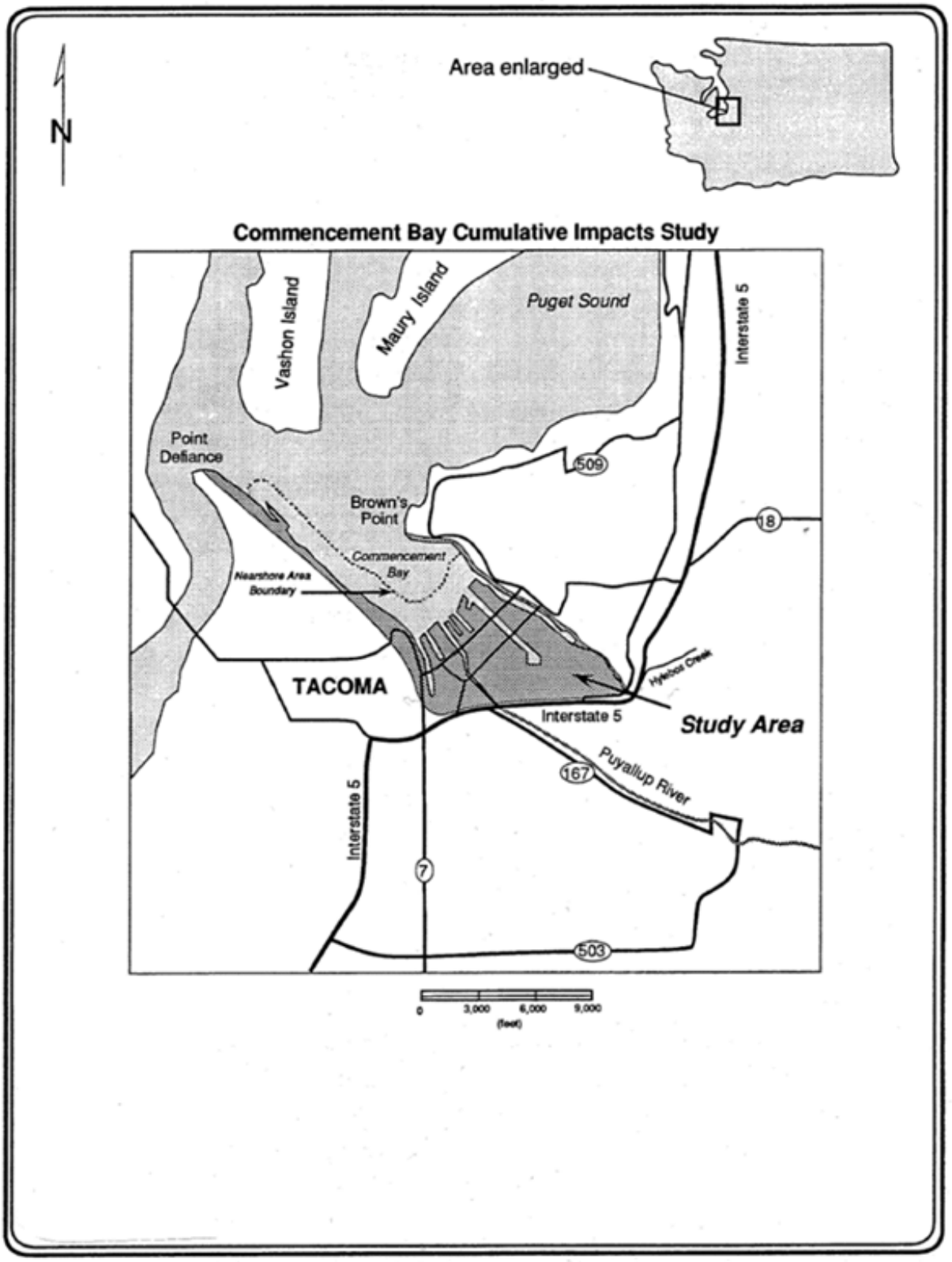
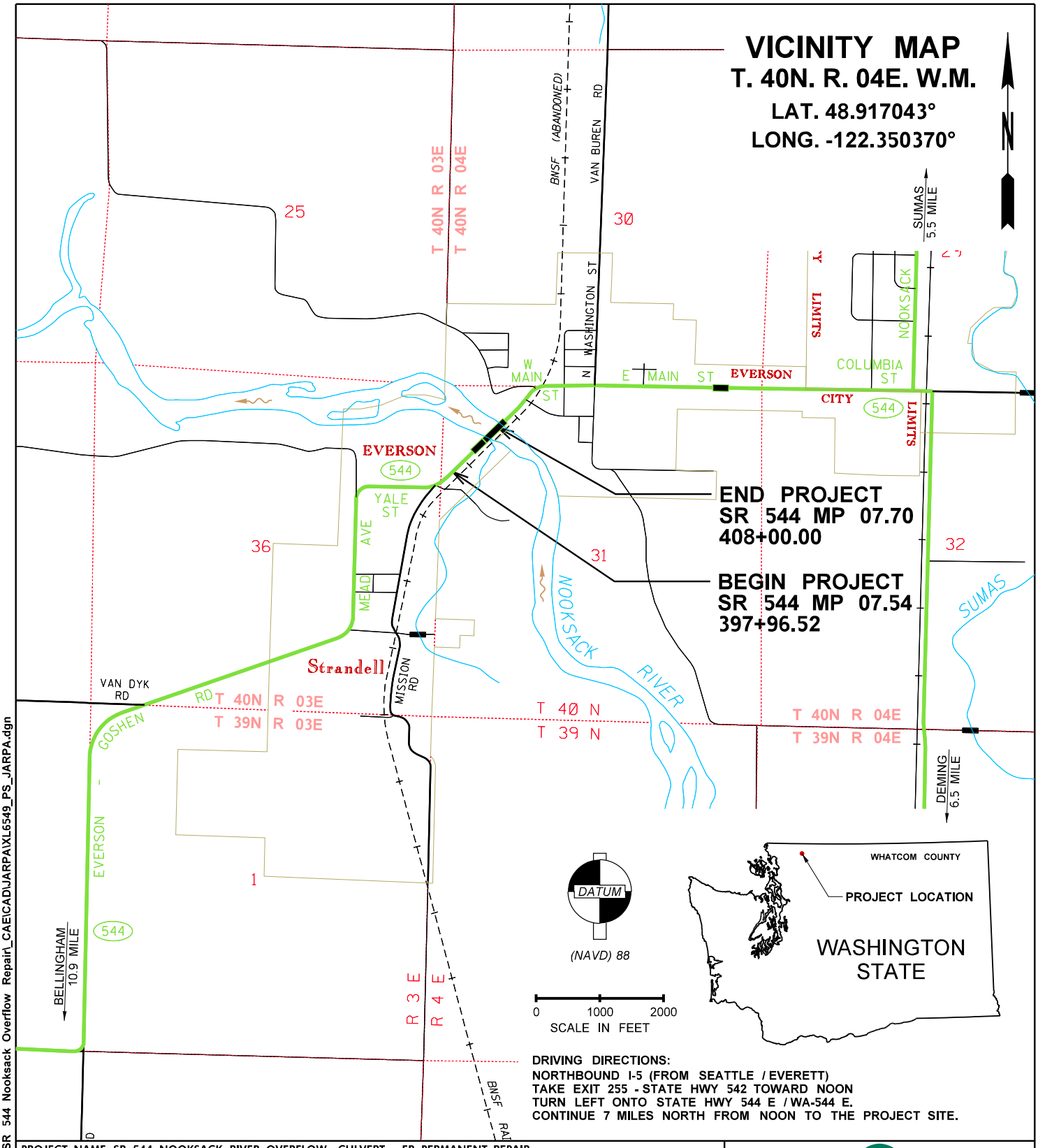

N
WRIA 9
Duwamish-Green
Federal Way
Lakeland South
Tacoma
WRIA 10
Puyallup-White
University Place
Lakewood
Puyallup
WRIA 12
Chambers-Clover
Parkland
Fort Lewis
South Hill
Spanaway
Elk Plain
WRIA 11
Nisqually
0 1 2 4 6 8
Miles
WRIA 11
Nisqually
Latitude: 47.0799 Longitude: -122.7018
0 750 1,500 3,000
Feet

Figure 3. RC 11 - Commencement Bay Study Area





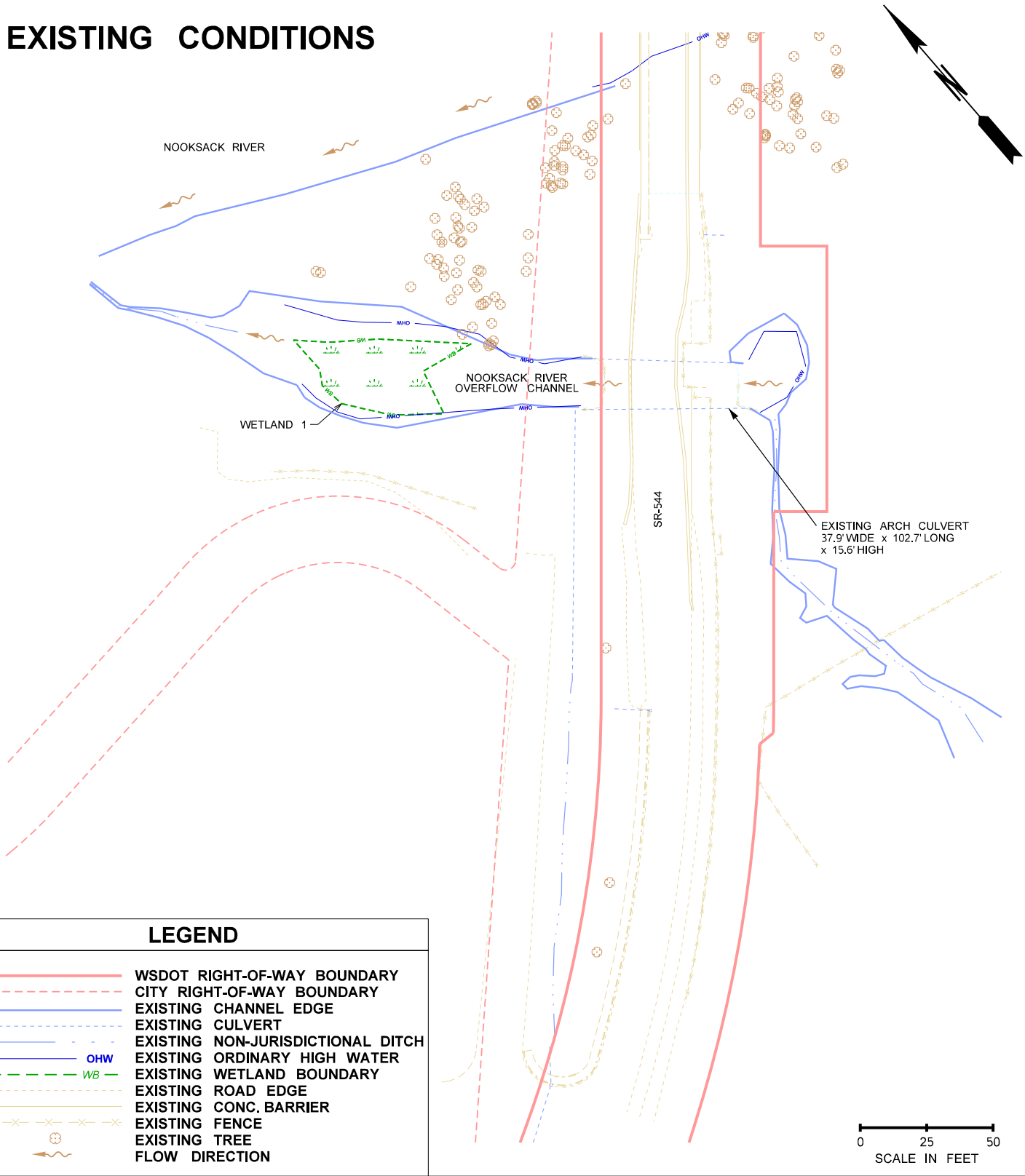
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PROJECT NAME: SR 544 NOOKSACK RIVER OVERFLOW CULVERT – ER PERMANENT REPAIR	
PURPOSE: FLOODING REPAIR	REFERENCE:
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 1 OF: 12

EXISTING CONDITIONS



LEGEND

- WSDOT RIGHT-OF-WAY BOUNDARY
- CITY RIGHT-OF-WAY BOUNDARY
- EXISTING CHANNEL EDGE
- EXISTING CULVERT
- EXISTING NON-JURISDICTIONAL DITCH
- OHW EXISTING ORDINARY HIGH WATER
- WB EXISTING WETLAND BOUNDARY
- EXISTING ROAD EDGE
- EXISTING CONC. BARRIER
- EXISTING FENCE
- EXISTING TREE
- FLOW DIRECTION

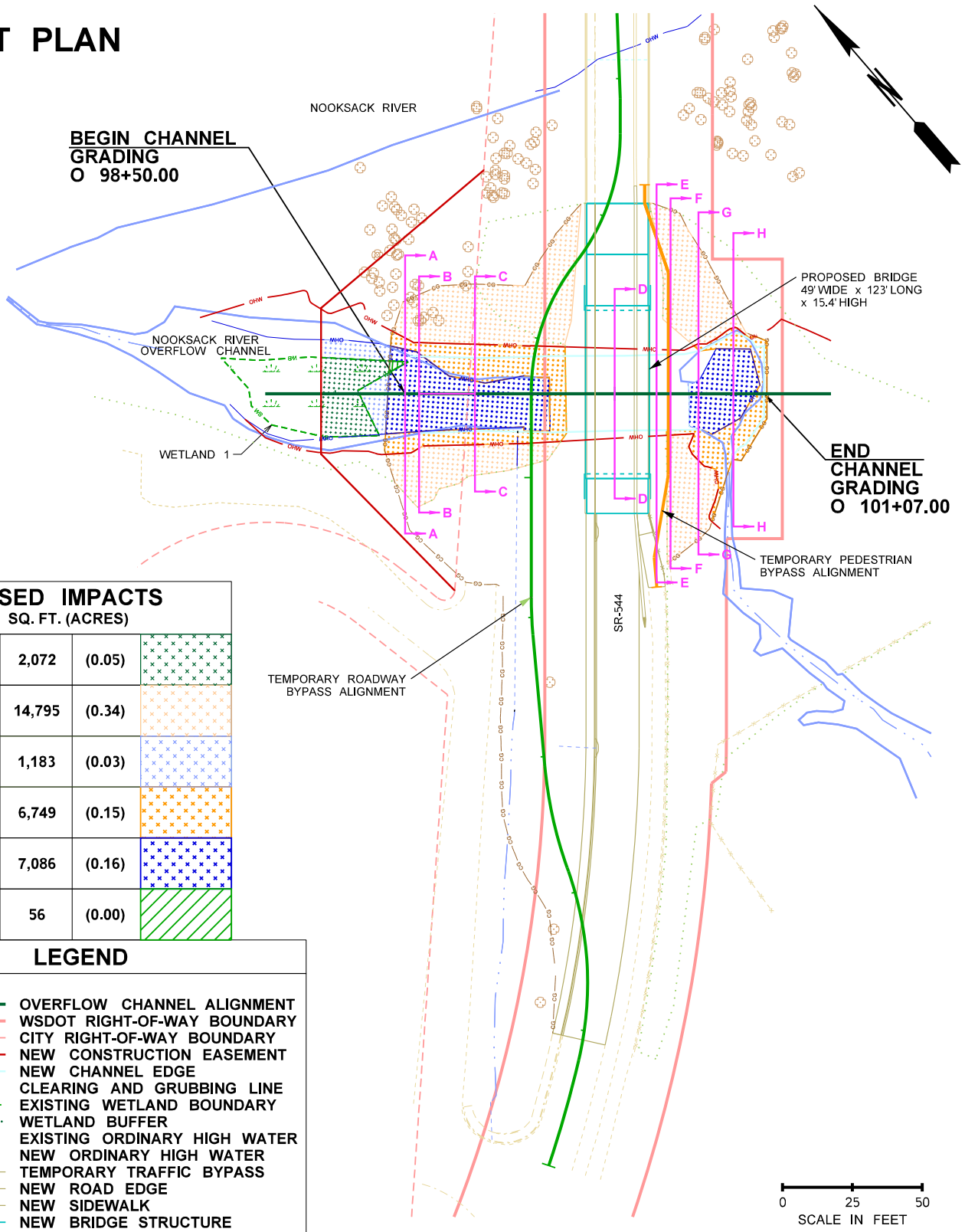
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PURPOSE: FLOODING REPAIR	REFERENCE:
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 2 OF: 12

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IMPACT PLAN



PROPOSED IMPACTS
TOTAL SQ. FT. (ACRES)

TEMPORARY WETLAND IMPACT	2,072	(0.05)	
TEMPORARY BUFFER IMPACT	14,795	(0.34)	
TEMPORARY STREAM IMPACT	1,183	(0.03)	
PERMANENT BUFFER IMPACT	6,749	(0.15)	
PERMANENT STREAM IMPACT	7,086	(0.16)	
PERMANENT WETLAND IMPACT	56	(0.00)	

LEGEND

- OVERFLOW CHANNEL ALIGNMENT
- WSDOT RIGHT-OF-WAY BOUNDARY
- CITY RIGHT-OF-WAY BOUNDARY
- NEW CONSTRUCTION EASEMENT
- NEW CHANNEL EDGE
- CG — CG — CLEARING AND GRUBBING LINE
- WB — EXISTING WETLAND BOUNDARY
- WETLAND BUFFER
- OHW — EXISTING ORDINARY HIGH WATER
- OHW — NEW ORDINARY HIGH WATER
- TEMPORARY TRAFFIC BYPASS
- NEW ROAD EDGE
- NEW SIDEWALK
- NEW BRIDGE STRUCTURE

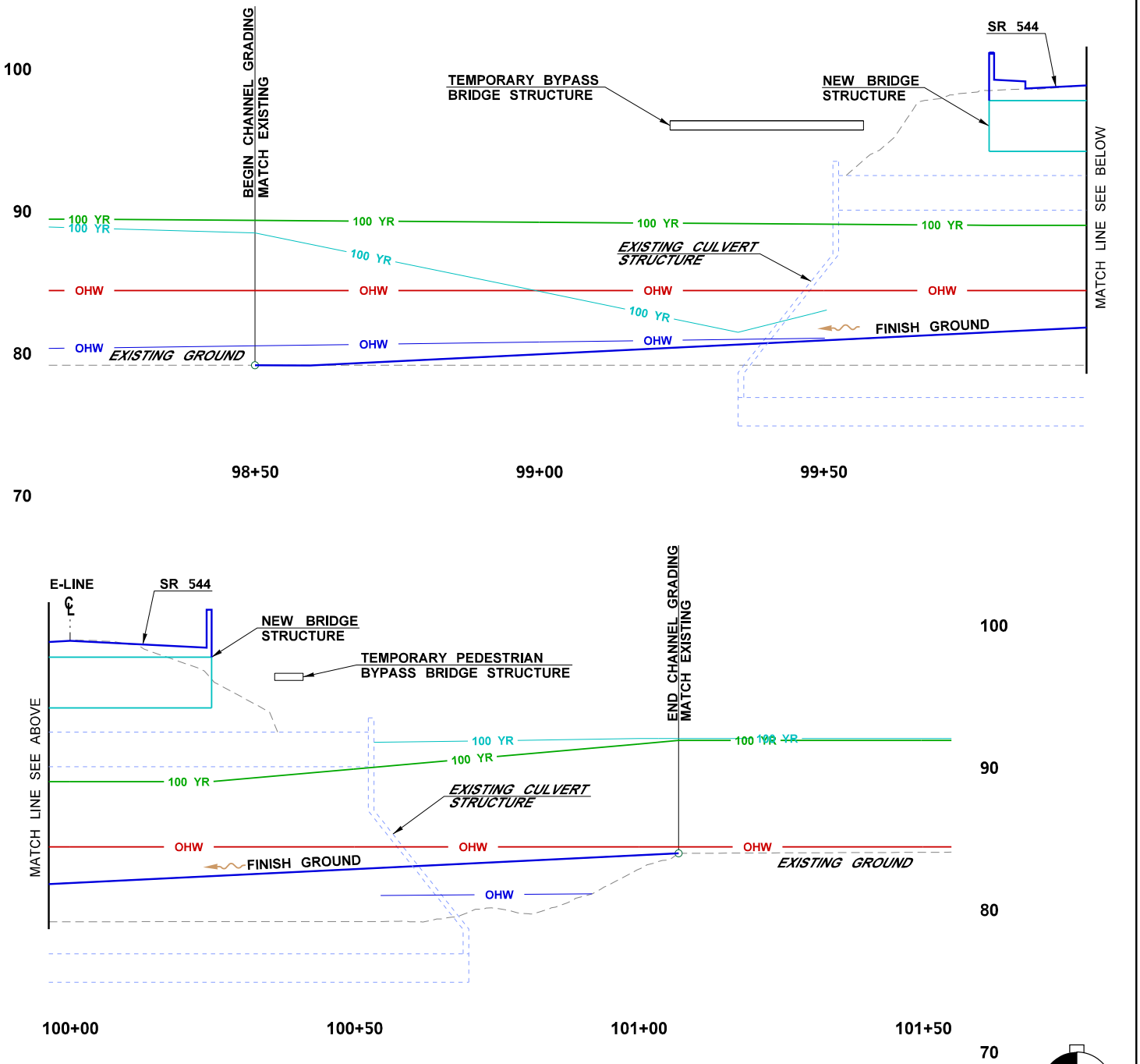
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PROJECT NAME: SR 544 NOOKSACK RIVER OVERFLOW CULVERT – ER PERMANENT REPAIR	
PURPOSE: FLOODING REPAIR	REFERENCE:
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 3 OF: 12

CHANNEL PROFILE



LEGEND

100 YR	NEW 100-YEAR FLOOD LINE
OHW	NEW ORDINARY HIGH WATER LINE
100 YR	EXISTING 100-YEAR FLOOD LINE
OHW	EXISTING ORDINARY HIGH WATER LINE

O LINE PROFILE

HORIZONTAL SCALE: 1" = 25'
VERTICAL SCALE: 1" = 10'

NOTE:
SEE SHEETS 5-7 FOR CHANNEL SECTIONS.

DATUM
(NAVD) 88

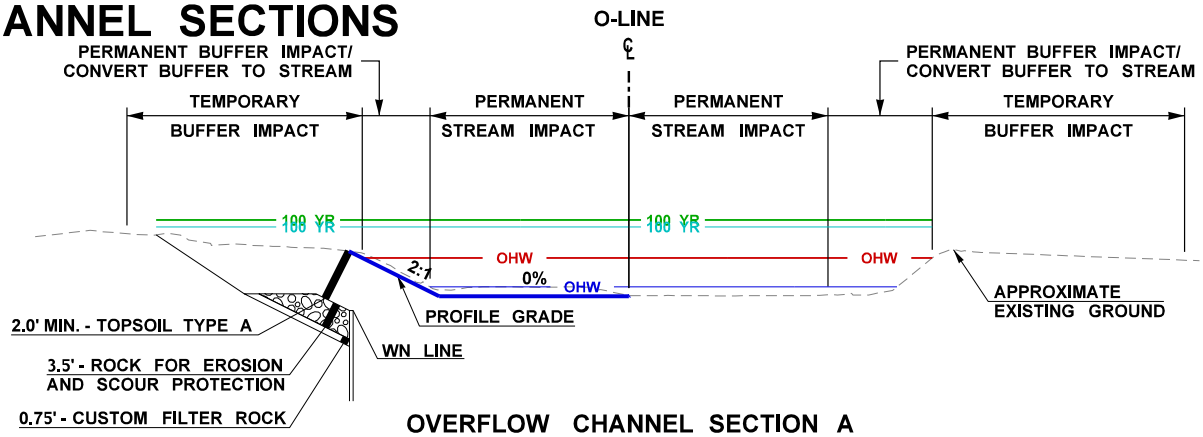
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PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 4 OF: 12

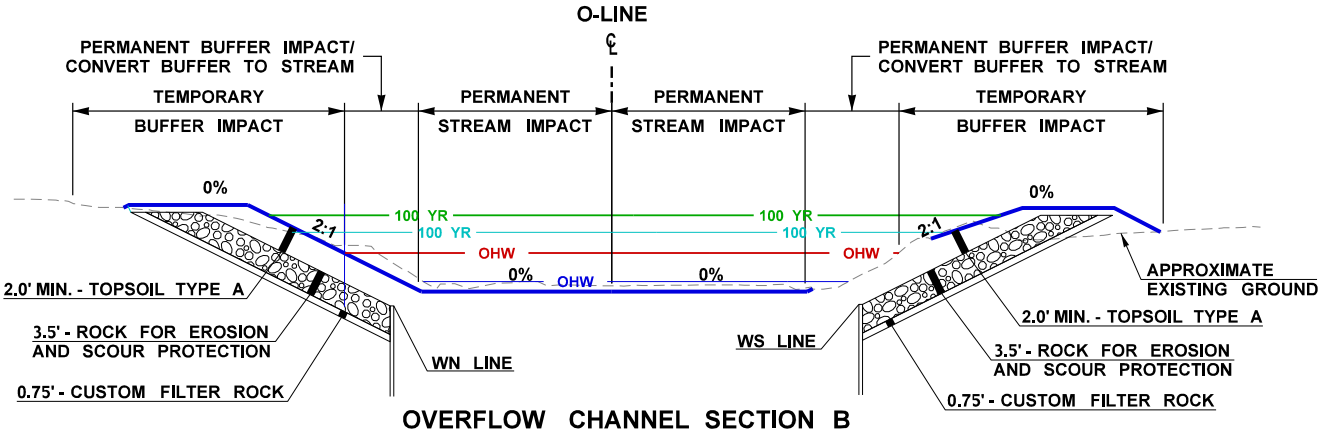
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CHANNEL SECTIONS



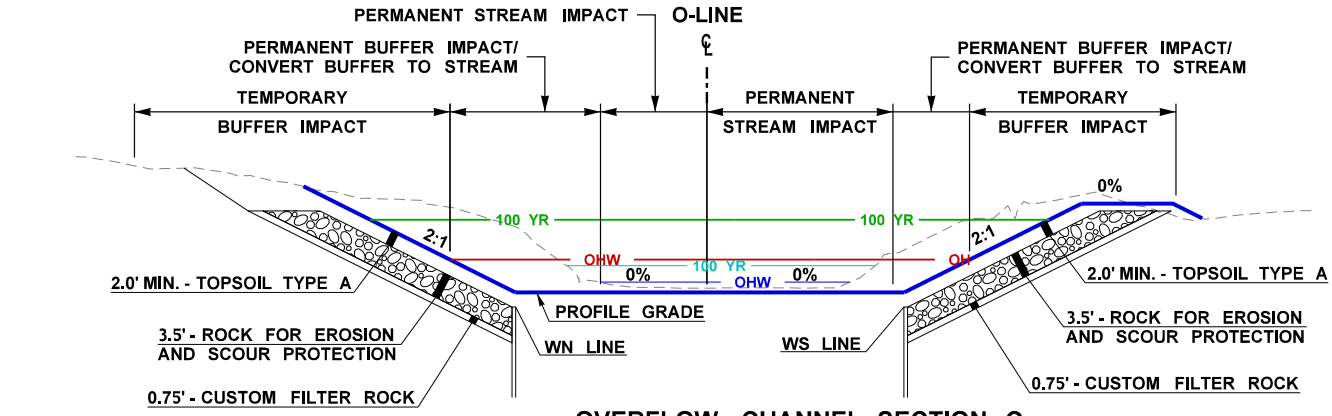
OVERFLOW CHANNEL SECTION A

NOT TO SCALE
STA. O 98+50 TO STA. O 98+60



OVERFLOW CHANNEL SECTION B

NOT TO SCALE
STA. O 98+60 TO STA. O 98+73



OVERFLOW CHANNEL SECTION C

NOT TO SCALE
STA. O 98+73 TO STA. O 99+79

LEGEND

100 YR	NEW 100-YEAR FLOOD LINE
OHW	NEW ORDINARY HIGH WATER LINE
100 YR	EXISTING 100-YEAR FLOOD LINE
OHW	EXISTING ORDINARY HIGH WATER LINE

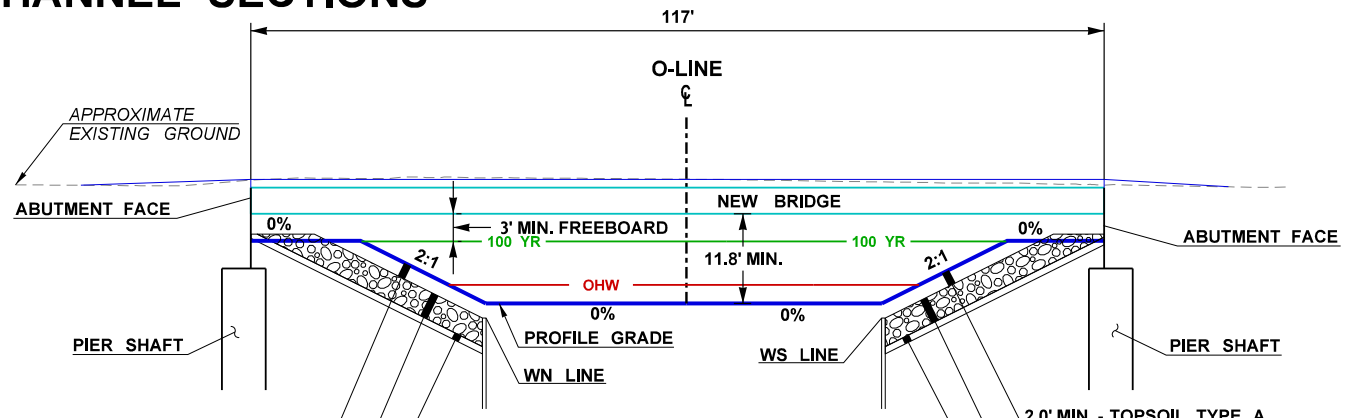
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PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 5 OF: 12

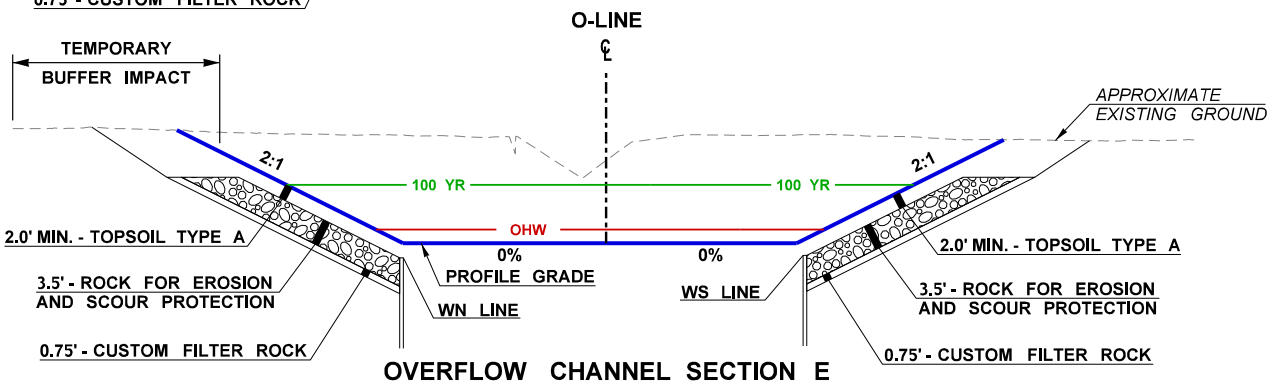
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CHANNEL SECTIONS



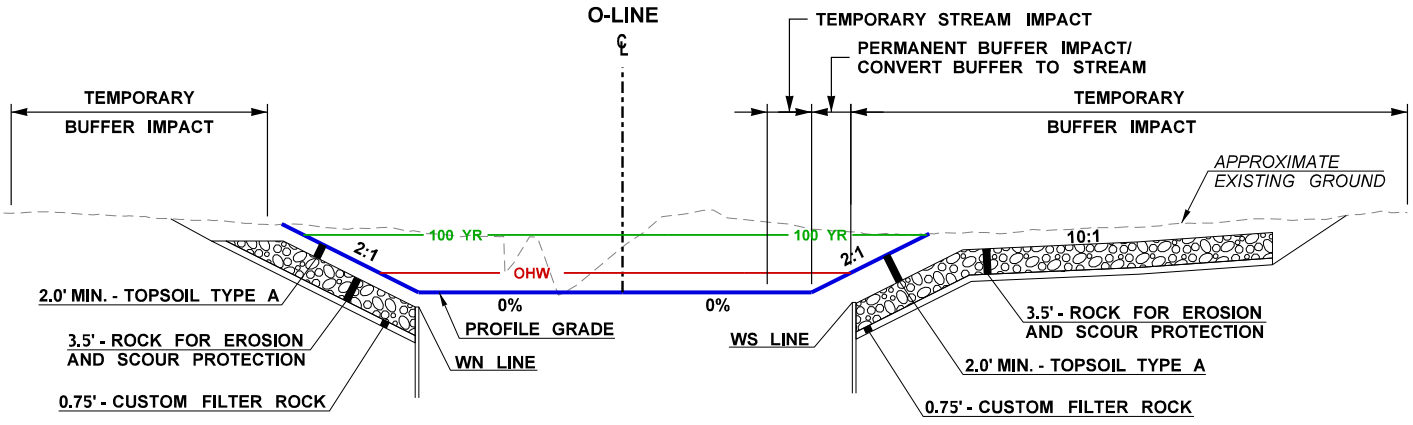
OVERFLOW CHANNEL SECTION D

NOT TO SCALE
STA. O 99+79 TO STA. O 100+25



OVERFLOW CHANNEL SECTION E

NOT TO SCALE
STA. O 100+25 TO STA. O 100+35



OVERFLOW CHANNEL SECTION F

NOT TO SCALE
STA. O 100+35 TO STA. O 100+43

LEGEND

100 YR	NEW 100-YEAR FLOOD LINE
OHW	NEW ORDINARY HIGH WATER LINE
100 YR	EXISTING 100-YEAR FLOOD LINE
OHW	EXISTING ORDINARY HIGH WATER LINE

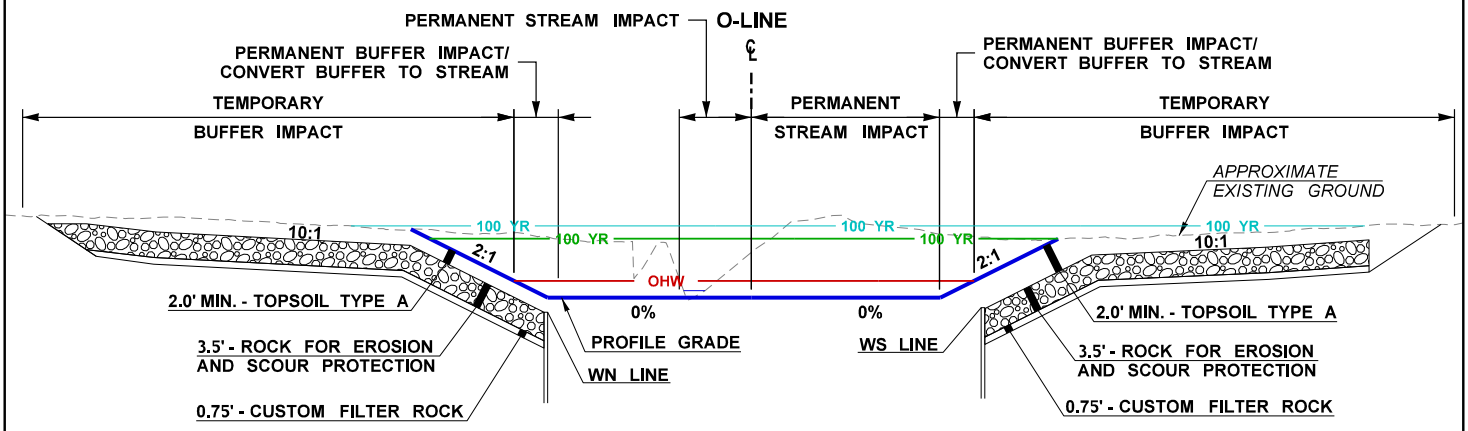
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PURPOSE: FLOODING REPAIR	REFERENCE:
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 6 OF: 12

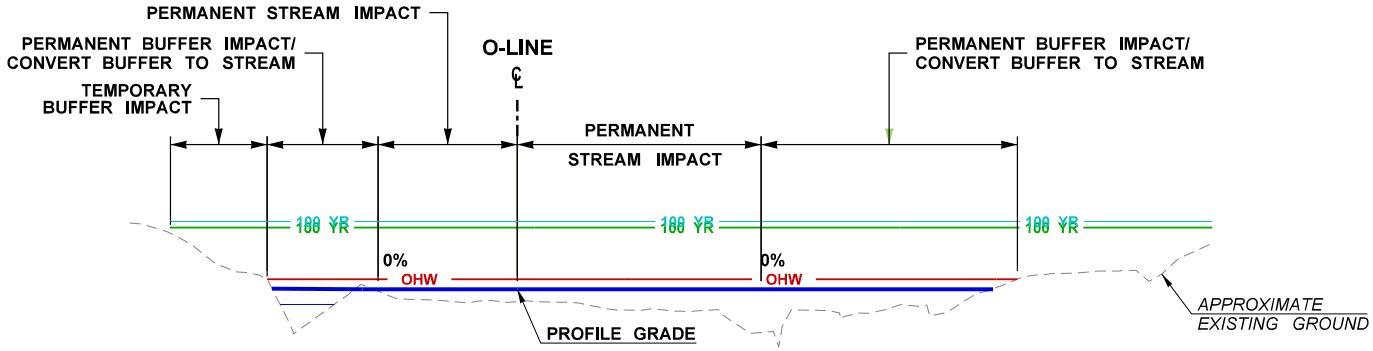
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CHANNEL SECTIONS



OVERFLOW CHANNEL SECTION G

NOT TO SCALE
STA. O 100+43 TO STA. O 100+64



OVERFLOW CHANNEL SECTION H

NOT TO SCALE
STA. O 100+64 TO STA. O 101+09

LEGEND

100 YR	NEW 100-YEAR FLOOD LINE
OHW	NEW ORDINARY HIGH WATER LINE
100 YR	EXISTING 100-YEAR FLOOD LINE
OHW	EXISTING ORDINARY HIGH WATER LINE

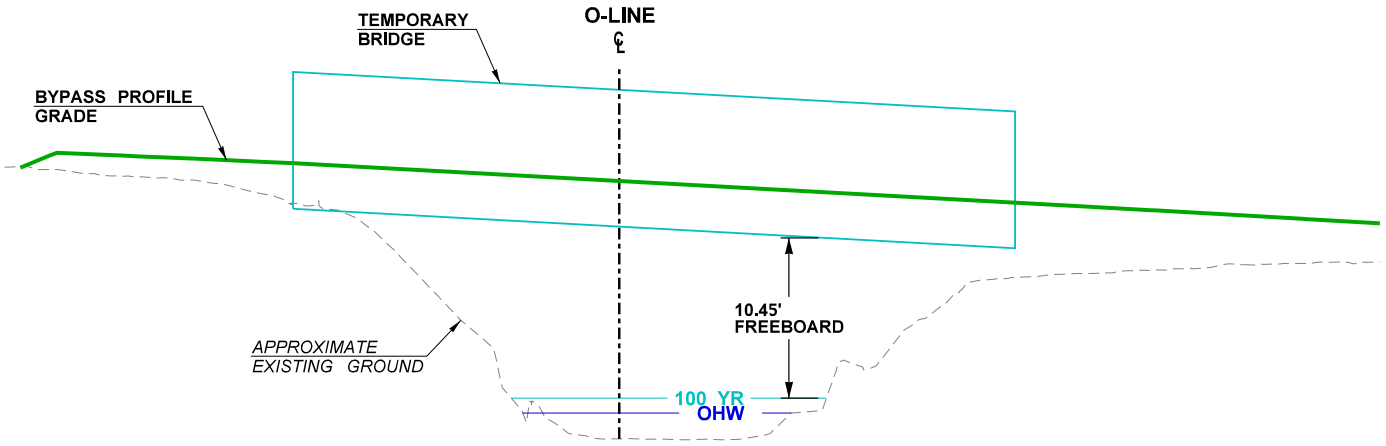
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LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 7 OF: 12

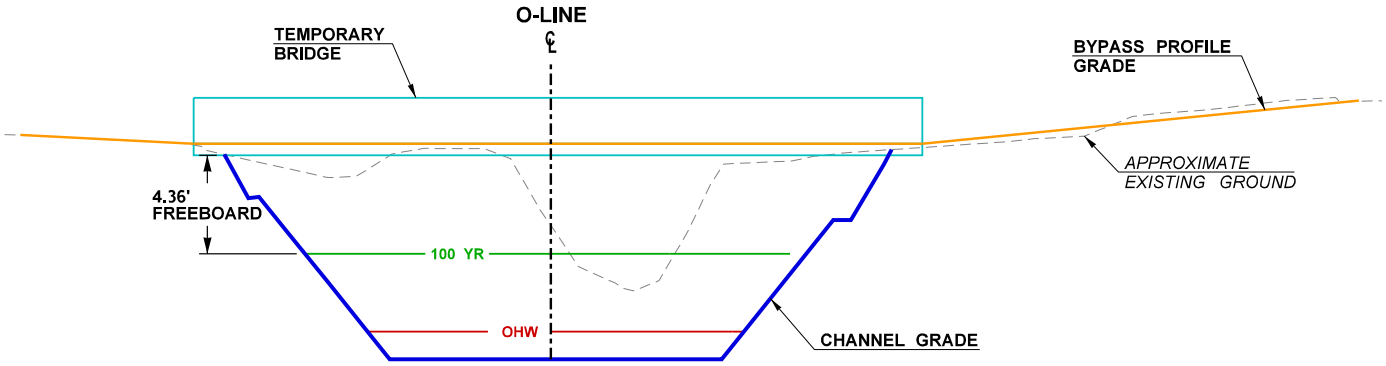
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BYPASS SECTIONS



TEMPORARY BYPASS SECTION

NOT TO SCALE



PEDESTRIAN BYPASS SECTION

NOT TO SCALE

LEGEND

100 YR	NEW 100-YEAR FLOOD LINE
OHW	NEW ORDINARY HIGH WATER LINE
100 YR	EXISTING 100-YEAR FLOOD LINE
OHW	EXISTING ORDINARY HIGH WATER LINE

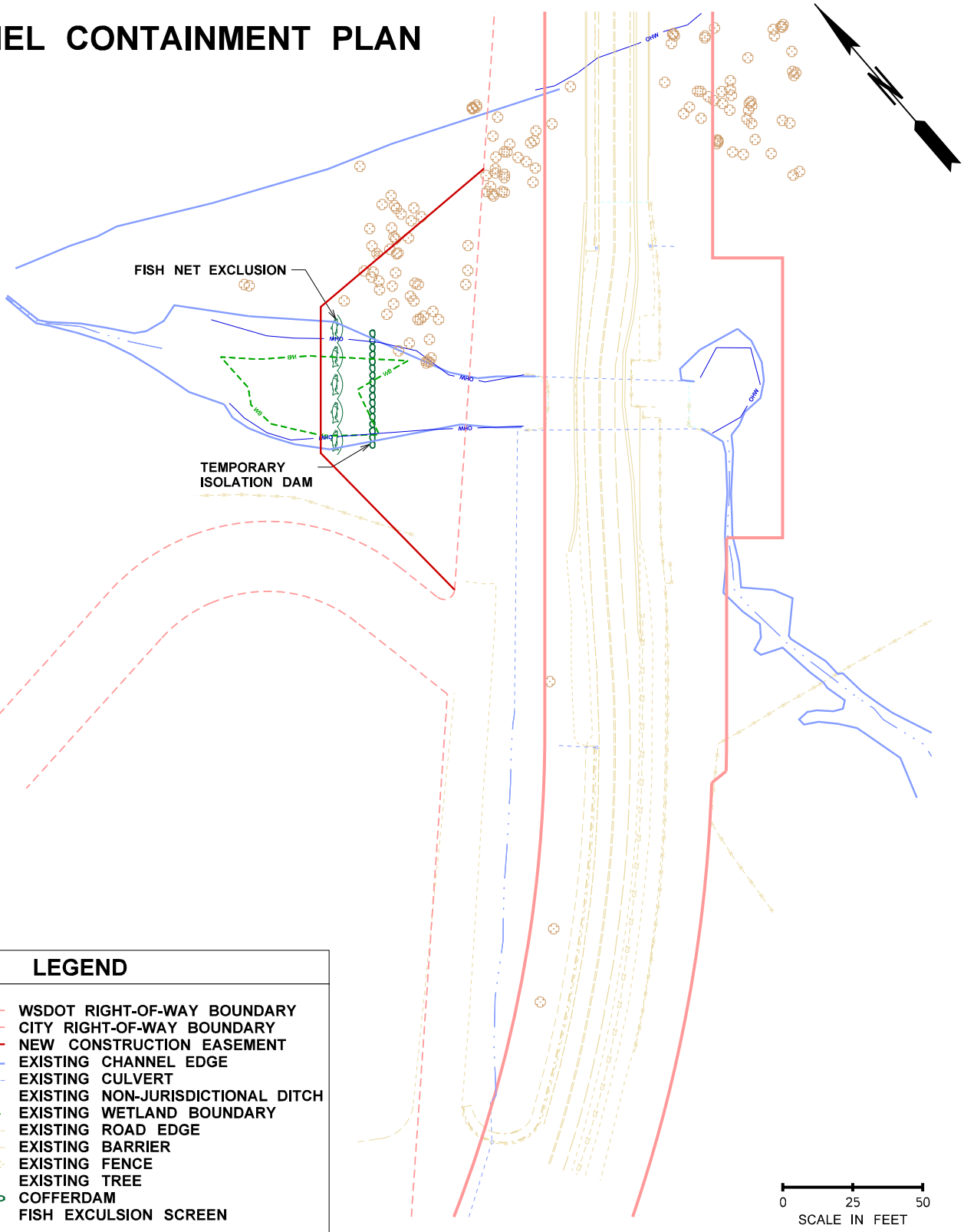
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LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 8 OF: 12

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CHANNEL CONTAINMENT PLAN



LEGEND

- WSDOT RIGHT-OF-WAY BOUNDARY
- CITY RIGHT-OF-WAY BOUNDARY
- NEW CONSTRUCTION EASEMENT
- EXISTING CHANNEL EDGE
- EXISTING CULVERT
- EXISTING NON-JURISDICTIONAL DITCH
- EXISTING WETLAND BOUNDARY (WB)
- EXISTING ROAD EDGE
- EXISTING BARRIER
- EXISTING FENCE
- EXISTING TREE
- COFFERDAM
- FISH EXCULSION SCREEN

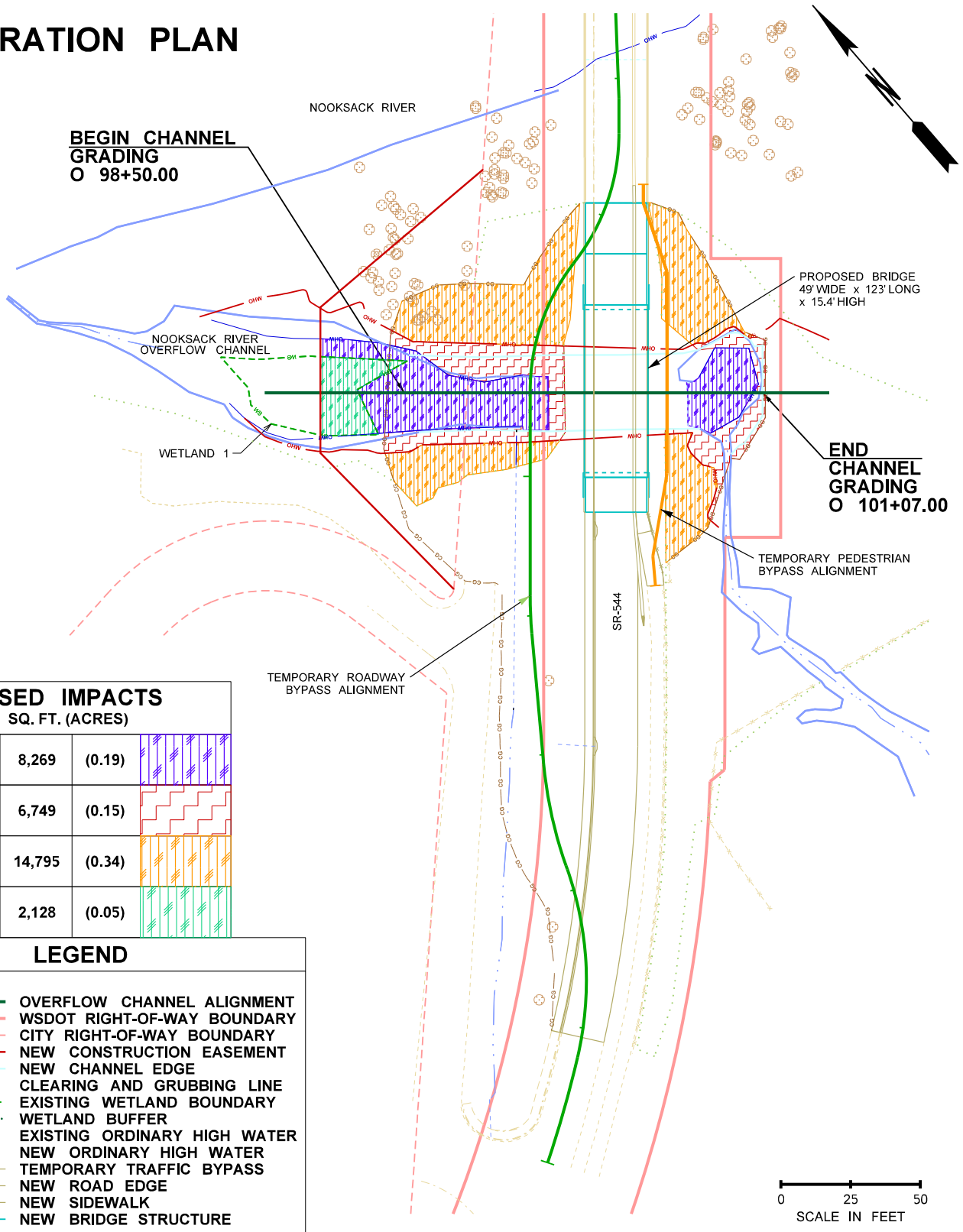
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PURPOSE: FLOODING REPAIR	REFERENCE:
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 9 OF: 12

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RESTORATION PLAN



PROPOSED IMPACTS

TOTAL SQ. FT. (ACRES)

STREAM RESTORATION	8,269	(0.19)
CONVERT BUFFER TO STREAM	6,749	(0.15)
BUFFER RESTORATION	14,795	(0.34)
WETLAND RESTORATION	2,128	(0.05)

LEGEND

- OVERFLOW CHANNEL ALIGNMENT
- WSDOT RIGHT-OF-WAY BOUNDARY
- CITY RIGHT-OF-WAY BOUNDARY
- NEW CONSTRUCTION EASEMENT
- NEW CHANNEL EDGE
- CG CG — CLEARING AND GRUBBING LINE
- WB — EXISTING WETLAND BOUNDARY
- WETLAND BUFFER
- OHW — EXISTING ORDINARY HIGH WATER
- OHW — NEW ORDINARY HIGH WATER
- TEMPORARY TRAFFIC BYPASS
- NEW ROAD EDGE
- NEW SIDEWALK
- NEW BRIDGE STRUCTURE

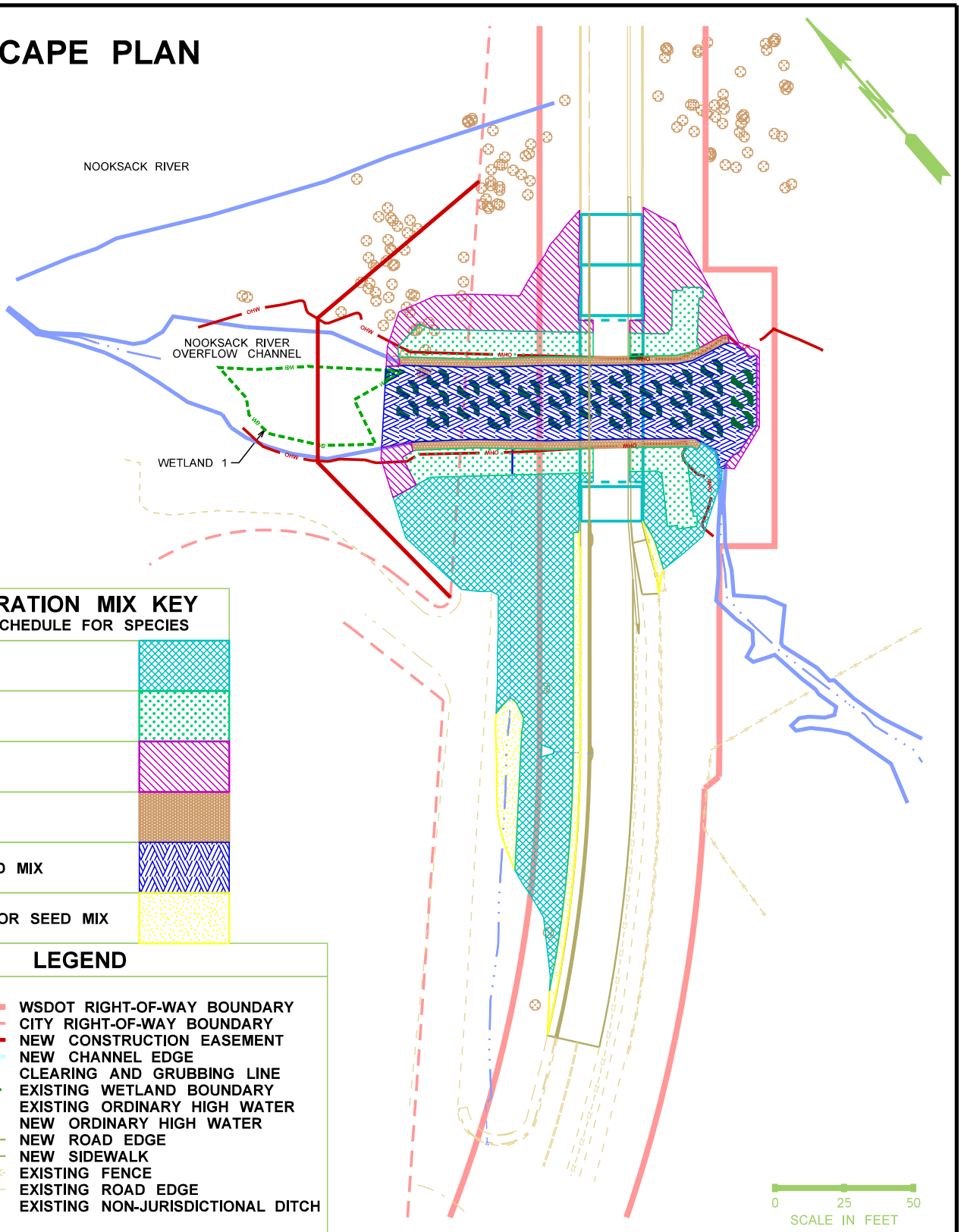
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PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 10 OF: 12

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LANDSCAPE PLAN



RESTORATION MIX KEY

SEE SCHEDULE FOR SPECIES

- PLANTING MIX A
- PLANTING MIX B
- PLANTING MIX C
- PLANTING MIX D
- WET NATIVE SEED MIX
- NATIVE POLLINATOR SEED MIX

LEGEND

- WSDOT RIGHT-OF-WAY BOUNDARY
- CITY RIGHT-OF-WAY BOUNDARY
- NEW CONSTRUCTION EASEMENT
- NEW CHANNEL EDGE
- CG — CG — CLEARING AND GRUBBING LINE
- WB EXISTING WETLAND BOUNDARY
- OHW EXISTING ORDINARY HIGH WATER
- OHW NEW ORDINARY HIGH WATER
- NEW ROAD EDGE
- NEW SIDEWALK
- EXISTING FENCE
- EXISTING ROAD EDGE
- EXISTING NON-JURISDICTIONAL DITCH

PROJECT NAME: SR 544 NOOKSACK RIVER OVERFLOW CULVERT – ER PERMANENT REPAIR	
PURPOSE: FLOODING REPAIR	REFERENCE: NWR–2025–
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

SHEET: 11 OF: 12

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LANDSCAPE PLAN SCHEDULE

4' O.C. SHRUBS, 12' O.C. TREES			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	%
	DOUGLAS-FIR	*PSEUDOTSUGA MENZIESII*	4%
	GRAND FIR	*ABIES GRANDIS*	4%
	BEAKED HAZELNUT	*CORYLUS CORNUTA*	4%
	MOCK ORANGE	*PHILADELPHUS LEWISII*	18%
	OCEANSPRAY	*HOLODISCUS DISCOLOR*	10%
	SNOWBERRY	*SYMPHORICARPOS ALBUS*	20%
	CREEPING OREGON-GRAPE	*MAHONIA REPENS*	20%
	COASTAL STRAWBERRY	*FRAGRARIA CHILOENSIS*	10%
	KINNIKINNICK	*ARCTOSTAPHYLOS UVA-URSI*	10%

4' O.C. SHRUBS, 12' O.C. TREES			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	%
	SITKA SPRUCE	*PICEA SITCHENSIS*	4%
	OREGON ASH	*FRAXINUS LATIFOLIA*	4%
	CASCARA	*FRANGULA PURSHIANA*	4%
	BALDHIP ROSE	*ROSA GYMNOCARPA*	18%
	CLUSTERED ROSE	*ROSA PISOCARPA*	15%
	BLACK TWINBERRY	*LONICERA INVOLUCRATA*	20%
	SLOUGH SEDGE	*CAREX OBNUPTA*	15%
	SNOWBERRY	*SYMPHORICARPOS ALBUS*	20%

4' O.C. SHRUBS & LIVE STAKES			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	%
	DOUGLAS SPIREA	*SPIRAEA DOUGLASII*	10%
	SALMONBERRY	*RUBUS SPECTABILIS*	15%
	BLACK TWINBERRY	*LONICERA INVOLUCRATA*	20%
	SNOWBERRY	*SYMPHORICARPOS ALBUS*	15%
	THIMBLEBERRY	*RUBUS PARVIFLORUS*	10%
	PACIFIC NINEBARK LIVE STAKE	*PHYSOCARPUS CAPITATUS*	15%
	RED-OSIER DOGWOOD LIVE STAKE	*CORNUS SERICEA*	15%

SOIL LIFTS - 3 LIVE STAKES PER LF OR 2 EMERGENTS PER LF			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	%
	COMMON RUSH ^	*JUNCUS EFFUSUS*	10%
	SLOUGH SEDGE ^	*CAREX OBNUPTA*	10%
	SITKA WILLOW LIVE STAKE	*SALIX SITCHENSIS*	15%
	RED-OSIER DOGWOOD LIVE STAKE	*CORNUS SERICEA*	15%
	PACIFIC NINEBARK LIVE STAKE	*PHYSOCARPUS CAPITATUS*	25%
	BLACK TWINBERRY LIVE STAKE	*LONICERA INVOLUCRATA*	25%

18" O.C. EMERGENTS WITHIN BOUNDARY			
SYMBOL	COMMON NAME	SCIENTIFIC NAME	%
	SLOUGH SEDGE	*CAREX OBNUPTA*	30%
	COMMON RUSH	*JUNCUS EFFUSUS*	30%
	HARDSTEM BULRUSH	*SCHOENOPLECTUS ACUTUS*	10%
	SMALL-FRUITED BULRUSH	*SCIRPUS MICROCARPUS*	30%

WET NATIVE SEED MIX	
SYMBOL	ITEM
	WET NATIVE SEED MIX

NATIVE POLLINATOR SEED MIX	
SYMBOL	ITEM
	NATIVE POLLINATOR SEED MIX

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PROJECT NAME: SR 544 NOOKSACK RIVER OVERFLOW CULVERT – ER PERMANENT REPAIR	
PURPOSE: FLOODING REPAIR	REFERENCE: NWR–2025–
PROPOSED: 123 FT BRIDGE AND CHANNEL GRADING	APPLICANT: WSDOT
LOCATION: SR 544 MP 7.54 – 7.70	COUNTY: WHATCOM
DATUM: HORIZONTAL: PROJECT DATUM VERTICAL: NAVD 88	NEAR: EVERSON, WA
ADJACENT PROPERTY OWNERS: SEE PCN FORM	WATER BODY: NOOKSACK RIVER OVERFLOW
	DATE: MAY, 2026

Washington State Department of Transportation

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