City of Tigard

13125 SW Hall Blvd
Tigard, Oregon 97223
Phone: (503) 639-4171
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CONTRACT DOCUMENTS

for the construction of

COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Invitation to Bid No. 2026-20

Single Point of Contact: Toni Riccardi
Purchasing Specialist
Email: tonir@tigard-or.gov

Submit one (1) copy in portable document format (pdf).

Submit Bid To: ContractsPurchasing@tigard-or.gov

Bid Due: May 26, 2026

Deadline for Questions: May 21, 2026

ADVERTISEMENT FOR BIDS
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

The City of Tigard will receive sealed Bids from qualified firms submitted electronically to the Contracts and Purchasing Department at contractspurchasing@tigard-or.gov until 2:00 pm local time, MAY 26, 2026 for the COOK PARK ACCESSSIBLE DOCK project. Bids will be opened and publicly read aloud immediately after the Bid Closing time and date via conference call at (971) 203-2862. Conference ID 264 771 225#

The project generally consists of the following:

1. Traffic control, erosion and sediment control, and work area isolation.
2. General excavation.
3. Construction of asphaltic pavements.
4. Construction of concrete curbs, ramps, sidewalks, parking stalls, and abutment seat.
5. Installation of pavement markings.
6. Installation of steel piles.
7. Installation of owner provided aluminum gangway and accessible floating dock.
8. Mitigation Planting.
9. Performance of additional and incidental work as called for by the specifications and plans.

Basis of Bid Award shall incorporate all items identified on the Bid Schedule.

Pursuant to Tigard Public Contracting Rule 30.055, all Bidders must submit a Bid security to the City along with their Bid in an amount equal to ten percent (10%) of their Bid. Because the City's estimate of contract value exceeds $100,000, Bidders must submit a First Tier Subcontractor Disclosure Form, provided in this Bid Booklet, to the City no later than 4:00 pm local time, MAY 26, 2026.

The provisions of ORS Chapters 279A and 279C and all other Oregon and Federal provisions pertaining to minimum salaries and wages shall be incorporated by reference as if fully set forth in any Contract resulting from this Advertisement for Bid. Contractor shall provide proof to the City prior to the beginning of any of the work that the Contractor has filed a public works bond with a corporate surety in the amount of $30,000 with the Construction Contractors Board as required under Oregon Prevailing Wage Rate (PWR) law.

No Bid will be considered unless fully completed in a manner provided in the Bid Packet. Facsimile Bids will not be accepted nor will Bids be accepted after the stated Bid Closing. Bids received after the Bid Closing will be returned to the submitting firm unopened after a Contract has been awarded for the required services.

Bid Documents may be downloaded from the City of Tigard website at www.tigard-or.gov/bids. The City may reject any Bid not in compliance with all prescribed public bidding procedures and requirements and may reject for good cause any or all Bids upon a finding of the City if it is in the public interest to do so.

All questions about the meaning or intent of the Bid Documents shall be submitted to the Contracts and Purchasing Department at contractspurchasing@tigard-or.gov with any questions. Clarifications to the Bid Documents will be made by addenda only. Oral statements may not be relied upon by Bidders and will not be binding or legally effective.

Published: Daily Journal of Commerce
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DRAWINGS COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

SHEETS: G1.1 THROUGH S1.0……DATED: MARCH 2026

ATTACHMENT A – BIDDER'S CHECKLIST
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

FORMS TO EXECUTE FOR SUBMISSION OF BID

The Bidder's attention is especially called to the following forms which must be executed in full before Bid is submitted:

ATTACHMENT B - BID

ATTACHMENT C – BID CERTIFICATION

ATTACHMENT D – FIRST TIER SUBCONTRACTOR DISCLOSURE FORM: within 2 hours of Bid Closing.

ATTACHMENT E – BID BOND

FORMS TO EXECUTE AFTER AWARD OF BID

ATTACHMENT F – PUBLIC IMPROVEMENT CONTRACT – PWR COVERED CONTRACT

ATTACHMENT G – PUBLIC IMPROVEMENT CONTRACT – PERFORMANCE BOND

ATTACHMENT H – PUBLIC IMPROVEMENT CONTRACT – PAYMENT BOND

Certificate of Insurance including Additional Insured Provision in accordance with the Public Improvement Contract.

ATTACHMENT B – BID
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

This Bid must be signed in ink by an authorized representative of the Bidder; any alterations or erasures to the Bid must be initialed in ink by the undersigned authorized representative.

Project: COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Bid Due Date: May 26, 2026

Name of Submitting Firm: _____

The Contractor hereby acknowledges receipt of Addendum Nos. ___,___,___,___,___ to this ITB.

The Undersigned *(check one of the following and provide additional information)*:

___ An individual doing business under an assumed name registered under the laws of the State of _____; or
___ A partnership registered under the laws of the State of _____; or
___ A corporation organized under the laws of the State of _____; or
___ A limited liability corporation organized under the laws of the State of _____;

hereby proposes to furnish all material and labor and perform all work hereinafter indicated for the above project in strict accordance with the Contract Documents for the Basic Bid as follows:

_____ and ____/100 Dollars ($_____)

and the Undersigned agrees to be bound by all documents comprising the Contract Documents as defined in the Contract. The Undersigned declares that it has carefully examined the site(s) of the work, the Contract Documents, and forms. Submission of this Bid shall be conclusive evidence that the Undersigned has investigated and is satisfied as to the condition to be encountered, as to the character, quality and scope of work to be performed, the quantities of materials to be furnished, and as to the requirement of the Contract Documents.

Accompanying herewith is a Bid Security which is equal to ten percent (10%) of the total amount of the Bid.

BID SCHEDULE
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

BASE BID SCHEDULE						
Item No.	Spec	Item Description	Quantity	Unit	Unit Price	Total Price
1	00186	Extra Work As Authorized	ALL	LS	$50,000.00	$50,000.00
2	00210	Mobilization	ALL	LS		
3	00225	Removal of Striping	ALL	LS		
4	00270	Temporary Type 6' Chainlink Fence	710	FT		
5	00270	Temporary Type Orange Snow Fence	170	FT		
6	00280	Erosion Control	ALL	LS		
7	00290	Work Area Isolation	ALL	LS		
8	00305	Construction Survey Work	ALL	LS		
9	00310	Removal of Piles	4	EA		
10	00310	Removal of Curbs	40	FT		
11	00310	Removal of Walks	35	SY		
12	00310	Removal of Surfacing	70	SY		
13	00310	Removal of Structures and Obstructions	ALL	LS		
14	00320	Clearing and Grubbing	ALL	LS		
15	00330	Earthwork	ALL	LS		
16	00390	Riprap Protection	ALL	LS		
17	00520	Furnish Pile Driving Equipment	ALL	LS		
18	00520	Drive Steel Pile	6	EA		
19	00520	Furnish Pile - 12-inch Steel	110	FT		
20	00520	Furnish Pile - 16-inch Steel	220	FT		
21	00641	Aggregate Base	20	CY		
22	00744	Level 2, 1/2-inch ACP Mixture	7	TON		
23	00759	Concrete Abutment	ALL	LS		
24	00759	Concrete Curbs, Standard	40	FT		
25	00759	Concrete Walks	1090	SF		
26	00759	Extra for New Curb Ramps	1	EA		
27	00759	Truncated Domes on New Surfaces	17	SF		
28	00759	Concrete Surfacing	470	SF		
29	00865	Thermoplastic, Extruded, Surface, Non-profiled	150	FT		
30	00867	Pavement Legend, Type B: Disabled Parking	2	EA		
31	00905	Remove Existing Signs	ALL	LS		
32	00940	Signs, Standard Sheeting, Sheet Aluminum and Post	ALL	LS		
33		Install Owner Provided Aluminum Gangway	ALL	LS		
34		Install Owner Provided Accessible Dock	ALL	LS		
35	01030	Permanent Seeding	850	SY		

36	01040	Trees, 2 Inch Caliper	80	EA		
37	01040	Shrubs, #1 Container	780	EA		
38	01040	Shrubs, #2 Container	180	EA		
39	01069	Handrail	14	FT		
					Grand Total Bid:	

Grand Total Bid Amount in words: _____ Dollars _____ And _____Cents	
_____	

The Undersigned agrees, if awarded the Contract, to execute and deliver to the City of Tigard, within ten (10) days after receiving the Contract forms, a satisfactory Performance Bond and a satisfactory Payment Bond each in an amount equal to one hundred percent (100%) of the Contract sum, using the forms provided by the City. The surety(ies) requested to issue the Performance Bond and Payment Bond will be _____. The Undersigned hereby authorizes said surety(ies) company(ies) to disclose any information to the City concerning the Undersigned's ability to supply a Performance Bond and Payment Bond each in the amount of the Contract.

The Undersigned further agrees that the Bid Security accompanying the Bid is left in escrow with the City; that the amount thereof is the measure of liquidated damages which the City will sustain by the failure of the Undersigned to execute and deliver the above-named Agreement Form, Performance Bond, and Payment Bond, and that if the Undersigned defaults in either executing the Agreement Form or providing the Performance Bond and Payment Bond within ten (10) days after receiving the Contract forms, then the Bid Security may become the property of the City at the City's option; but if the Bid is not accepted within sixty (60) days of the time set for the opening of the Bids, or if the Undersigned executes and timely delivers said Agreement Form, Performance Bond, and Payment Bond, the Bid Security shall be returned.

The Undersigned certifies that: (1) This Bid has been arrived at independently and is being submitted without collusion with and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the solicitation documents designed to limit independent Bidding or competition; and (2) The contents of the Bid have not been communicated by the Undersigned or its employees or agents to any person not an employee or agent of the Undersigned or its surety on any bond furnished with the Bid and will not be communicated to such person prior to the official opening of the Bid.

The Undersigned ☐ HAS ☐ HAS NOT *(check applicable status)* paid unemployment or income taxes in Oregon within the past 12 months and ☐ HAS ☐ HAS NOT *(check applicable status)* a business address in Oregon.

The Undersigned ☐ HAS ☐ HAS NOT *(check applicable status)* complied with any Affirmative Action Requirements included within the procurement documents.

The Undersigned agrees, if awarded a Contract, to comply with the provisions of ORS 279C.800 through 279C.870 pertaining to the payment of the prevailing rates of wage.

The Undersigned's CCB registration number is _____ with an expiration date of _____. As a condition to submitting a Bid, a Contractor must be registered with the Oregon Construction Contractors Board in accordance with ORS 701.035 to 701.055, and disclose the registration number. Failure to register and disclose the number will make the Bid unresponsive and it will be rejected unless contrary to federal law. The Undersigned further certifies that Undersigned shall provide proof to the City prior to the beginning of any of the work that the Undersigned has filed a public works bond with a corporate surety in the amount of $30,000 with the Construction Contractors Board as required under Oregon PWR law.

The successful Bidder hereby certifies that all subcontractors who will perform construction work as described in ORS 701.005(2) were registered with the Construction Contractors Board in accordance with ORS 701.035 to 701.055 at the time the subcontractor(s) made a Bid to work under the Contract.

The successful Bidder hereby certifies that, in accordance with the Worker's Compensation Law of the State of Oregon, its Worker's Compensation Insurance provider is _____, Policy No. _____, and that Undersigned shall submit Certificates of Insurance as required.

Name of Company: _____

Company Address: _____

_____

Federal Tax ID: _____

Telephone: _____

Email: _____

I attest that I have the authority to commit the firm named above to this Bid amount and acknowledge that the firm meets the qualifications necessary to perform this Work as outlined in the Invitation to Bid. I understand that I will be required to provide necessary information to verify that the firm meets these qualifications if selected for the subsequent Contract.

Authorized Signature: _____

Printed Name & Title: _____

Date: _____

Payment information will be reported to the IRS under the name and federal taxpayer ID number provided above. Information not matching IRS records or not provided to the City could subject the successful Contractor to a twenty eight percent (28%) backup withholding.

SCOPE FOR BID SCHEDULE

Measurement and payment for all Work shown or specified herein will be made on a unit or lump sum price basis in accordance with the prices set forth in the Bid Schedule for individual items of Work. Contractor shall make a careful assessment when preparing the Bid.

The items listed below refer to and are the same pay items listed in the Bid Schedule. They constitute all of the pay items for the completion of the Work. No direct or separate payment will be made for providing miscellaneous temporary or accessory services or all other items not specifically named in specific Bid item description and needed for prosecution of the Work, and all other requirement of the Contract Documents. Compensation for all such services, things and materials shall be included in the prices stipulated for the lump sum and unit price pay items listed herein.

The prices stated in the Bid Schedule, include overhead and profit and all costs and expenses for bonds, insurance, taxes, labor, equipment, materials, commissions, transportation charges and expenses, patent fees and royalties, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the Work, complete and in place, as shown on the Plans and specified herein. The basis of payment for an item at the lump sum or unit price shown in the Bid Schedule shall be in accordance with the description of that item in this Section.

BID ITEM DESCRIPTIONS: COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Following are the measurement and payment descriptions for the various Bid items included in the Cook Park Accessible Dock project.

Descriptions reference and/or modify sections of the 2024 Oregon Standard Specifications for Construction where applicable.

BID ITEM 1 EXTRA WORK AS AUTHORIZED

Extra Work as Authorized Bid includes labor, equipment, and materials to perform additional work as directed by the Engineer. Bid item amount pre-determined by City.

Measurement and payment of work under this Bid item shall be on a negotiated basis between the Contractor and Engineer agreed upon prior to the work being performed. No work under this Bid item shall be paid unless authorized in writing by the Engineer.

BID ITEM 2 MOBILIZATION

Comply with Section 00210 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00210.80 of the Standard Specifications.

Payment shall be per Section 00210.90 of the Standard Specifications, including all preparatory work and operations necessary for the movement of personnel, equipment, materials, and incidentals to the project site and for all other costs incurred before the beginning of work as well as any other work included in the Contract Documents which is not specifically listed in other Bid items. This includes labor, equipment, and materials to

furnish, place, maintain and remove construction fencing and signage. This includes labor, equipment, and materials to relocate structures including, but not limited to, trash receptacles and site benches. This includes labor, equipment and materials to construct temporary work pads, as necessary, to complete the work.

The amounts paid for mobilization in the Contract progress payment will be based on the percentage of the Original Contract amount that is earned from other Contract items.

When 5% is earned, either 50% of the amount for mobilization or 5% of the original Contract amount, whichever is the least.

When 10% is earned, either 100% of mobilization or 10% of the original Contract amount, whichever is the least.

When all work is completed, amount of mobilization exceeding 10% of the original Contract amount.

This schedule of mobilization progress payments will not limit or preclude progress payments otherwise provided by the Contract.

BID ITEM 3 REMOVAL OF STRIPING

Comply with Section 00225 of the Standard Specifications.

Measurement shall be on a lump sum (LS) basis per Section 00225.80 of the Standard Specifications.

Payment shall be on a lump sum basis per Section 00225.90 and shall include all labor, equipment, materials, and other incidentals and work necessary to completely remove painted and durable stripes at existing accessible parking stalls using grinding as indicated on plans.

BID ITEM 4 TEMPORARY TYPE 6' CHAINLINK FENCE
BID ITEM 5 TEMPORARY TYPE ORANGE SNOW FENCE

Comply with Section 00270 of the Standard Specifications.

Measurement shall be on a linear foot (FT) basis per Section 00270.80 of the Standard Specifications.

Payment for this item shall be on a linear foot basis per Section 00270.90(a) and represents full payment for all labor, equipment, materials, and all miscellaneous incidentals and work necessary to install, furnish gates as necessary, remove, dispose of, and restore disturbed surfaces to match existing as specified.

BID ITEM 6 EROSION CONTROL

Comply with Section 00280 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00280.80(a) of th, se Standard Specifications.

Payment shall be on a lump sum basis per Section 00280.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to install and maintain all erosion control measures required including, but not limited to: maintaining erosion and sediment control at the project site daily, daily street

sweeping of work area if sediment is tracked onto paved surfaces, and application of dust control measures as required, inlet protection and sediment fence installation and maintenance, weekly cleanup and disposal of construction debris and waste materials, weekly cleanup of the debris captured by sediment controls, replacement during the project when necessary or directed, and removal of all erosion control items at the completion of the project.

BID ITEM 7 WORK AREA ISOLATION

Comply with Section 00290 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00290.80 of the Standard Specifications.

Payment shall be on a lump sum basis per Section 00290.90 and shall include all labor, equipment, materials, and other incidentals and work necessary to isolate the work area including, but not limited to: placement of sandbags, and/or sediment fence at the perimeter of the work area and associated dewatering, and installation and maintenance of sediment curtain.

BID ITEM 8 CONSTRUCTION SURVEY WORK

Comply with Section 00305 of the Standard Specifications.

Measurement shall be on a lump sum (LS) basis per Section 00305.80.

Payment shall be on a lump sum basis per Section 00305.90 and shall include all labor, equipment, materials, and other incidentals and work necessary to complete construction survey work in accordance with ODOT's "Construction Surveying Manual for Contractors" and this project's contract documents.

BID ITEM 9 REMOVAL OF PILES

Comply with Section 00310 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a unit (EA) basis per Section 00310.80.

Payment shall be on a unit basis per Section 00310.90 and shall include all labor, equipment, materials, and other incidentals and work necessary to remove the existing piles from the river and dispose offsite.

BID ITEM 10 REMOVAL OF CURBS

Comply with Section 00310 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a linear foot (FT) basis per Section 00310.80.

Payment for this item shall be on a linear foot basis per Section 00310.92 and represents full payment for all labor, equipment, materials, and all miscellaneous incidentals and work necessary to sawcut, remove, haul and dispose of all curbs as specified.

BID ITEM 11 REMOVAL OF WALKS
BID ITEM 12 REMOVAL OF SURFACING

Comply with Section 00310 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a square yard (SY) basis per Section 00310.80.

Payment for this item shall be on a square yard basis per Section 00310.92 and represents full payment for all labor, equipment, materials, and all miscellaneous incidentals and work necessary to sawcut, remove, haul and dispose of all sidewalks and surfacing as specified.

BID ITEM 13 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Comply with Section 00310 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00310.80.

Payment for this item shall be on a lump sum basis per Section 00310.91 and represents full payment for all labor, equipment, and materials necessary to sawcut, remove, haul and dispose of all structures and obstructions required, excluding those which are paid under other bid items.

BID ITEM 14 CLEARING AND GRUBBING

Comply with Section 00320 of the Standard Specifications.

Measurement shall be on a lump sum (LS) basis per Section 00320.80.

Payment shall be on a lump sum basis per Section 00320.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to remove and dispose of vegetation, trees, roots, plants, and strippings within the footprint of the work areas.

It is the intent of the City that impacts to existing vegetation be minimized to the extent possible in areas outside of the work area footprint. Removal of shrubs, trees, and other landscaping that are outside of the footprint of the work areas shall be replaced by the Contractor at their expense.

BID ITEM 15 EARTHWORK

Comply with Section 00330 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis according to approximate quantities shown on plans and per Section 00330.81.

Payment shall be on a lump sum basis per Section 00330.93 including all labor, equipment, materials, and other incidentals and work necessary to excavate, haul off, dispose of excess excavated material, and use excavated material to remove sediment and regrade hillside. Payment for fine grading, subgrade compaction, and soil stockpiling shall be considered incidental to this bid item.

BID ITEM 16 RIPRAP PROTECTION

Comply with Section 00390 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis according to approximate quantities shown on plans and per Section 00390.80.

Payment shall be on a lump sum basis per Section 00390.90 including all labor, equipment, materials, and other incidentals and work necessary to furnish and place riprap. including furnishing all equipment, labor, and incidentals necessary to complete the work as specified. Riprap geotextile shall be considered incidental to this bid item.

BID ITEM 17 FURNISH PILE DRIVING EQUIPMENT

Comply with Section 00520 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00520.80.

Payment shall be on a lump sum basis per Section 00520.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary for transporting, erecting, maintaining, replacing any ordered equipment, dismantling and removing the entire pile driving equipment.

BID ITEM 18 DRIVE STEEL PILE

Comply with Section 00520 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a unit (EA) basis per Section 00520.80.

Payment shall be on a unit basis per Section 00520.90 including all labor, materials, and all other miscellaneous incidentals and work necessary to drive pile to depth as shown or specified.

BID ITEM 19 FURNISH PILE – 12 INCH STEEL
BID ITEM 20 FURINSH PILE – 16 INCH STEEL

Comply with Section 00520 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a linear foot (FT) basis per Section 00520.80.

Payment shall be on a linear foot basis per Section 00520.90 including all labor, materials, and all other miscellaneous incidentals and work necessary to furnish steel pile. No allowance will be made for that length of piece furnished by the contractor to replace piles previously accepted by the Engineer, but that are subsequently damaged before completion of the project. Payment includes all labor, materials, and work necessary to treat and cap piles heads.

BID ITEM 21 AGGREGATE BASE

Comply with Section 00641 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a cubic yard (CY) basis according to Section 00641.80.

Payment shall be on a cubic yard (CY) basis and based on neat line measurement with 6-inch allocation adjacent to concrete formwork per Section 00641.90, including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish, place, grade, and compact aggregate base.

BID ITEM 22 LEVEL 2, 1/2-INCH ACP MIXTURE

Comply with Section 00744 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a tonnage (TON) basis per Section 00744.80.

Payment shall be on a tonnage basis per Section 00744.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish, place, grade, compact, and finish asphalt pavement of the type noted. No separate or additional payment will be made for leveling or tack coat.

BID ITEM 23 CONCRETE ABUTMENT

Comply with Section 00759 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00759.80.

Payment shall be on a lump sum basis per Section 00759.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to reinforce, furnish, place, grade, compact, and finish concrete abutment. No separate or additional payment will be made for reinforcement, doweling, or leveling. The gusset and pin attachment will be provided by the manufacturer. Installation of the attachment is to be included in this pay item.

BID ITEM 24 CONCRETE CURBS, STANDARD

Comply with Section 00759 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a linear foot (FT) basis per Section 00759.80.

Payment shall be on a linear foot basis per Section 00759.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish, place, joint, and finish concrete curb, including gutter where indicated. No separate or additional payment will be made for protection of concrete surfaces from vandalism or adverse weather conditions.

BID ITEM 25 CONCRETE WALKS

Comply with Section 00759 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a square foot (SF) basis per Section 00759.80.

Payment shall be on a square foot (SF) basis per Section 00759.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish, place, reinforce, joint, and finish concrete walks.

BID ITEM 26 EXTRA FOR NEW CURB RAMPS

Comply with Section 00759 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a per each (EA) basis per Section 00759.80.

Payment shall be on a per each basis per Section 00759.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish, place, joint and finish concrete sidewalks ramps.

BID ITEM 27 TRUNCATED DOMES FOR NEW SURFACES

Comply with Section 00759 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a square foot (SF) basis per Section 00759.80.

Payment shall be on a square foot basis per Section 00759.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to place and finish truncated domes on new surfaces.

BID ITEM 28 CONCRETE SURFACING

Comply with section 00759 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a square foot (SF) basis per Section 00759.80.

Payment shall be on a square foot (SF) basis per Section 00759.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to reinforce, furnish, place, joint, and finish concrete pavements.

BID ITEM 29 THERMOPLASTIC, EXTRUDED, SURFACE, NON-PROFILED

Comply with Section 00865 of the Standard Specifications.

Measurement shall be on a linear foot (FT) basis per Section 00865.80. Line widths other than 4 inches will be adjusted by converting to an equivalent length of nominal 4-inch line on a proportional area basis.

Payment shall be on a linear foot basis per Section 00865.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish and install extruded thermoplastic non-profiled pavement markings as shown on the plans. Striping damaged by construction activities shall be incidental.

BID ITEM 30 PAVEMENT LEGEND, TYPE B: DISABLED PARKING

Comply with Section 00867 of the Standard Specifications.

Measurement shall be on a per each (EA) basis per Section 00867.80.

Payment shall be on a per each basis per Section 00867.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish and install pavement legends as shown on the Plans.

BID ITEM 31 REMOVE EXISTING SIGNS

Comply with Section 00905 of the Standard Specifications.

Measurement shall be on a lump sum (LS) basis per Section 00905.80.

Payment shall be on a lump sum basis per Section 00905.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to remove signs, supports, and support footings, and to either dispose of or salvage to Owner as directed.

BID ITEM 32 SIGNS, STANDARD SHEETING, SHEET ALUMINUM AND POST

Comply with Section 00940 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 00940.80.

Payment shall be on a lump sum basis per Section 00940.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish and install street signs, supports, and support footings, including all attached hardware and anchor bolts.

BID ITEM 33 INSTALL OWNER PROVIDED ALUMINUM GANGWAY
BID ITEM 34 INSTALL OWNER PROVIDED ACCESSIBLE DOCK

Comply with Section 01020 of the Special Provisions.

Measurement shall be on a lump sum (LS) basis per Section 01020.80.

Payment shall be on a lump sum basis per Section 01020.90 including all labor, and all other miscellaneous incidentals and work necessary to install aluminum gangway and accessible dock.

BID ITEM 35 PERMANENT SEEDING

Comply with Section 01030 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a square yard (SY) basis per Section 01030.80.

Payment shall be on a square yard basis per Section 01030.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to inspect and place seed mix, as specified in plans. No separate or additional payment will be made for placement of coir fabric and wooden stakes. Temporary irrigation or watering as required to maintain and promote healthy plant growth shall be considered incidental. Contractor shall coordination with Engineer and Owner to finalize planting quantities prior to purchase and installation.

BID ITEM 36 TREES, 2 INCH CALIPER

Comply with Section 01040 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a per each (EA) basis per Section 01040.80.

Payment shall be on a per each basis per Section 01040.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to plant trees in enhancement and mitigation area, caliper size, size of container, or other size as shown in plans. Temporary irrigation or watering as required to maintain and promote healthy plant growth shall be considered incidental. Contractor shall coordination with Engineer and Owner to finalize planting quantities prior to purchase and installation.

BID ITEM 37 SHRUBS, #1 CONTAINER
BID ITEM 38 SHRUBS, #2 CONTAINER

Comply with Section 01040 of the Standard Specifications as modified in the Special Provisions.

Measurement shall be on a per each (EA) basis per Section 01040.80.

Payment shall be on a per each basis per Section 01040.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to plant shrubs in enhancement and mitigation area, size of container, or other size as shown in plans. Temporary irrigation or watering as required to maintain and promote healthy plant growth shall be considered incidental. Contractor shall coordination with Engineer and Owner to finalize planting quantities prior to purchase and installation.

BID ITEM 39 HANDRAIL

Comply with Section 01050 of the Standard Specifications.

Measurement shall be on a lineal foot (FT) basis per Section 01050.80.

Payment shall be on a lump sum basis per Section 01050.90 including all labor, equipment, materials, and all other miscellaneous incidentals and work necessary to furnish and install handrail and anchor plate, including all attached hardware and anchor bolts.

ATTACHMENT C – BID CERTIFICATION
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Non-discrimination Clause

The Bidder agrees not to discriminate against any client, employee or applicant for employment or for services, because of race, color, religion, sex, national origin, handicap or age with regard to, but not limited to, the following: employment upgrading, demotion or transfer; recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; selection for training; rendition of services. It is further understood that any contractor who is in violation of this clause shall be barred from receiving awards of any purchase order or Bidder from the City, unless a satisfactory showing is made that discriminatory practices have terminated and that a recurrence of such acts is unlikely.

Agreed by: _____

Firm Name: _____

Address: _____

_____

_____

Officer's signature: _____

Type or print officer's name: _____

ATTACHMENT D – FIRST TIER SUBCONTRACTOR DISCLOSURE FORM
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

BID #: 2026-20 **CLOSING DATE: May 26, 2026** **Time: 2:00 PM PST**

This form must be submitted at the location specified in the Advertisement for Bids on the advertised Bid closing date and within two working hours after the advertised Bid closing time.

List below the name of each subcontractor that will be furnishing labor or will be furnishing labor and materials and that is required to be disclosed, the category of work that the subcontractor will be performing and the dollar value of the subcontract. Enter "NONE" if there are no subcontractors that need to be disclosed. (ATTACH ADDITIONAL SHEETS IF NEEDED).

	NAME	DOLLAR VALUE	CATEGORY OF WORK
1)	_____	$_____	_____
2)	_____	$_____	_____
3)	_____	$_____	_____
4)	_____	$_____	_____

Failure to submit this form by the disclosure deadline will result in a nonresponsive Bid. A nonresponsive Bid will not be considered for award.

Form submitted by (Bidder name): _____

Contact name: _____ **Phone #:**_____

ATTACHMENT E – BID BOND
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

We, _____, as "Principal,"
(Name of Principal)

and _____, an _____ Corporation,
(Name of Surety)

authorized to transact Surety business in the State of Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors, and assigns to pay unto the City of Tigard ("Obligee") the sum of _____ and _____/100 Dollars ($_____).

WHEREAS, the condition of the obligation of this bond is the Principal has submitted a Bid to the Obligee in response to Obligee's solicitation for the project identified as COOK PARK ACCESSIBLE DOCK IMPROVEMENTS which Bid is made a part of this bond by reference, and Principal is required to furnish Bid security in an amount equal to ten percent (10%) of the total amount of the Bid pursuant to the solicitation document.

NOW, THEREFORE, if the Bid submitted by Principal is accepted, and if a Contract pursuant to the Bid is awarded to Principal, and if Principal enters into and executes such Contract within the time specified in the said documents and delivers to Obligee its good and sufficient Performance Bond and Payment Bond required by Obligee within the time fixed by Obligee, then this obligation shall be void; otherwise, it shall remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this _____ day of _____, _____.

PRINCIPAL: _____

By: _____
Signature

_____
Printed Name & Title

Attest: _____

SURETY: _____

BY ATTORNEY-IN-FACT

_____
Printed Name

_____
Signature

_____
Address

_____
City State Zip

ATTACHMENT F – PUBLIC IMPROVEMENT CONTRACT
PWR COVERED PROJECT
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

THIS CONTRACT, made and entered into by and between the City of Tigard, a municipal corporation of the State of Oregon, hereinafter called "City" and (Full Name) hereinafter called "Contractor", duly authorized to perform such services in Oregon.

RECITALS

WHEREAS, the City requires services which Contractor is capable of providing, under terms and conditions hereinafter described; and

WHEREAS, time is of the essence in this contract and all work under this contract shall be completed within the time period stated in the Contract Documents;

THEREFORE, in consideration of the promises and covenants contained herein, the parties hereby agree as follows:

TERMS OF AGREEMENT

1. Services to be Provided

Contractor's services under this Agreement shall consist of the following:

A. Traffic control, erosion and sediment control, and work area isolation.
B. General excavation.
C. Construction of asphaltic pavements.
D. Construction of concrete curbs, ramps, sidewalks, parking stalls, and abutment seat.
E. Installation of pavement markings.
F. Installation of steel piles.
G. Installation of owner provided aluminum gangway and accessible floating dock.
H. Mitigation Planting.
I. Performance of additional and incidental work as called for by the specifications and plans.

J. Contract Documents

The Contractor is hereby bound to comply with all requirements of the Contract Documents prepared by the City and performance pertaining to this Agreement, in the City of Tigard, Oregon, and by this reference made a part hereof to the same legal force and effect as if set forth herein in full.

K. Effective Date and Duration

This Agreement is effective upon notice to proceed issued by the City and shall be substantially completed by September 30, 2026.

L. Compensation

A. City agrees to pay Contractor $Total Amount for performance of those services provided herein.

B. City certifies that sufficient funds are available and authorized for expenditure to finance costs of this Contract during the current fiscal year. Funding in future fiscal years shall be contingent upon budgetary approval by the Tigard City Council.

M. Early Termination

A. This Agreement may be terminated without cause prior to the expiration of the agreed upon term by mutual written consent of the parties and for the following reasons:

1) If work under the Contract is suspended by an order of a public agency for any reason considered to be in the public interest other than by a labor dispute or by reason of any third party judicial proceeding relating to the work other than a suit or action filed in regard to a labor dispute; or
2) If the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the Contract.

B. Payment of Contractor shall be as provided by ORS 279C.660 and shall be prorated to and include the day of termination and shall be in full satisfaction of all claims by Contractor against City under this Agreement.

C. Termination under any provision of this paragraph shall not affect any right, obligation, or liability of Contractor or City which accrued prior to such termination.

N. <u>Cancellation with Cause</u>

A. City may terminate this Agreement effective upon delivery of written notice to Contractor, or at such later date as may be established by City, under any of the following conditions:

1) If City funding from federal, state, local, or other sources is not obtained and continued at levels sufficient to allow for the purchase of the indicated quantity of services. This Agreement may be modified to accommodate a reduction in funds,
2) If Federal or State regulations or guidelines are modified, changed, or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this Agreement,
3) If any license or certificate required by law or regulation to be held by Contractor, its Subcontractors, agents, and employees to provide the services required by this Agreement is for any reason denied, revoked, or not renewed, or
4) If Contractor becomes insolvent, if voluntary or involuntary petition in bankruptcy is filed by or against Contractor, if a receiver or trustee is appointed for Contractor, or if there is an assignment for the benefit of creditors of Contractor.

Any such termination of this Agreement under paragraph (A) shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination.

B. City, by written notice of default (including breach of Contract) to Contractor, may terminate the whole or any part of this Agreement:

1) If Contractor fails to provide services called for by this Agreement within the time specified herein or any extension thereof, or
2) If Contractor fails to perform any of the other provisions of this Agreement, or so fails to pursue the work as to endanger performance of this Agreement in accordance with its terms, and after receipt of written notice from City, fails to correct such failures within ten (10) days or such other period as City may authorize.

The rights and remedies of City provided in the above clause related to defaults (including breach of Contract) by Contractor shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.

If City terminates this Agreement under paragraph (B), Contractor shall be entitled to receive as full payment for all services satisfactorily rendered and expenses incurred, an amount which bears the same ratio to the total fees specified in this Agreement as the services satisfactorily rendered by Contractor bear to the total services otherwise required to be performed for such total fee; provided, that there shall be deducted from such amount the amount of damages, if any, sustained by City due to breach of Contract by Contractor. Damages for breach of Contract shall be those allowed by Oregon law, reasonable and necessary attorney fees, and other costs of litigation at trial and upon appeal.

O. Force Majeure

Neither City nor Contractor shall be considered in default because of any delays in completion of responsibilities hereunder due to causes beyond the control and without fault or negligence on the part of the party so disenabled, including, but not restricted to, an act of God or of a public enemy, volcano, earthquake, fire, flood, epidemic, quarantine, restriction, area-wide strike, freight embargo, unusually severe weather or delay of Subcontractor or suppliers due to such cause; provided that the party so disenabled shall within ten (10) days from the beginning of such delay, notify the other party in writing of the causes of delay and its probable extent. Such notification shall not be the basis for a claim for additional compensation. Each party shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon cessation of the cause, diligently pursue performance of its obligation under Contract.

P. Nonwaiver

The failure of the City to insist upon or enforce strict performance by Contractor of any of the terms of this Contract or to exercise any rights hereunder shall not be construed as a waiver or relinquishment to any extent of its right to assert or rely upon such terms or rights on any future occasion.

Q. Attorney's Fees

In case suit or action is instituted to enforce the provisions of this contract, the parties agree that the losing party shall pay such sum as the Court may adjudge reasonable attorney's fees and court costs including attorney's fees and court costs on appeal.

R. Governing Law

The provisions of this Agreement shall be construed in accordance with the provisions of the laws of the State of Oregon. Any action or suits involving any questions arising under this Agreement must be brought in the appropriate court of the State of Oregon.

S. Indemnification

Contractor agrees to indemnify and defend the City, its officers, agents and employees and hold them harmless from any and all liability, causes of action, claims, losses, damages, judgments or other costs or expenses including attorney's fees and witness costs and (at both trial and appeal level, whether or not a trial or appeal ever takes place) that may be asserted by any person or entity which in any way arise from, during or in connection with the performance of the work described in this Contract, except liability arising out of the sole negligence of the City and its employees. If any aspect of this indemnity shall be found to be illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of this indemnification.

T. Insurance

Contractor shall maintain insurance acceptable to City in full force and effect throughout the term of this Contract. Such insurance shall cover all risks arising directly or indirectly out of Contractor's activities or work hereunder, including the operations of its Subcontractors of any tier. Such insurance shall include provisions that such insurance is primary insurance with respect to the interests of City and that any other insurance maintained by City is excess and not contributory insurance with the insurance required hereunder.

The policy or policies of insurance maintained by the Contractor shall provide at least the following limits and coverages:

A. Commercial General Liability Insurance: Contractor shall obtain, at contractor's expense, and keep in effect during the term of this Contract, Comprehensive General Liability Insurance covering Bodily Injury and Property Damage on an "occurrence" form (CG 2010 1185 or equivalent). This coverage shall include Contractual Liability insurance for the indemnity provided under this Contract. The following insurance will be carried:

Coverage	Limit
General Aggregate	$3,000,000
Products-Completed Operations Aggregate	$2,000,000
Personal & Advertising Injury	$1,000,000
Each Occurrence	$2,000,000
Fire Damage (Any one fire)	$50,000

B. Tail Coverage – Construction

If any of the aforementioned liability insurance required under this Contract is written on a "claims-made" basis, Contractor shall be required to maintain such coverage for a period of not less than twenty-four (24) months following Final Completion of the Project, termination of the Contracts, or expiration of this Contract, whichever occurs last.

If coverage is canceled, non-renewed, replaced with coverage having materially reduced limits, or otherwise discontinued during the required post-completion period, Contractor may procure an Extended Reporting Period ("ERP") endorsement providing coverage for a minimum of twenty-four (24) months following Final Completions, termination, or expiration of the Contract, or for the maximum period available from Contractor's insurer if such maximum period is less than twenty-four (24) months. Any continuous claims-made coverage maintained in lieu of ERP coverage must have a retroactive date no later than the effective date of this Contract.

Contractor shall furnish to Contracting Agency certificates of insurance and applicable endorsements evidencing compliance with this requirement prior to Final Payment. Failure to maintain required claims-made coverage or ERP coverage shall constitute a material breach of Contract. All required Commercial General Liability coverage shall be endorsed to provide a per-project aggregate limit applying separately to this Project.

C. Commercial Automobile Insurance: Contractor shall also obtain, at Contractor's expense, and keep in effect during the term of the Contract, "Symbol 1" Commercial Automobile Liability coverage including coverage for all owned, hired, and non-owned vehicles. The Combined Single Limit per occurrence shall not be less than $2,000,000.

D. Workers' Compensation Insurance: The Contractor, its Subcontractors, if any, and all employers providing work, labor or materials under this Contract are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage that satisfies Oregon law for all their subject workers. Out-of-state employers must provide Oregon workers' compensation coverage for their workers who work at a single location within Oregon for more than 30 days in a calendar year. Contractors who perform work without the assistance or labor of any employee need not to obtain such coverage." This shall include Employer's Liability Insurance with coverage limits of not less than $1,000,000 each accident.

E. Additional Insured Provision: The City of Tigard, Oregon, its officers, directors, and employees, and representatives and the State of Oregon, OPRD, its officers, employes and agents as additional insured

with respect to this contract. Coverage must be primary and non-contributory with other insurance and self-insurance. All Liability Insurance policies will be endorsed to show this additional coverage.

F. Insurance Carrier Rating: Coverage provided by the Contractor must be underwritten by an insurance company deemed acceptable by the City. The insurance carrier shall have a minimum of an AM Best Rating "A" with a financial strength of VII or better. The City reserves the right to reject all or any insurance carrier(s) with an unacceptable financial rating.

G. Certificates of Insurance: A copy of each insurance policy, certified as a true copy by an authorized representative of the issuing insurance company, or at the discretion of City, in lieu thereof, a certificate in form satisfactory to City certifying to the issuance of all such insurance provisions of this Contract shall be forwarded to:

City of Tigard
Attn: Office of Contracts and Purchasing
contractspurchasing@tigard-or.gov

Such policies or certificates must be delivered prior to commencement of the work and no Contract shall be affected until the required certificates have been received and approved by the City. Ten days cancellation notice shall be provided City by certified mail to the name at the address listed above in event of cancellation or non-renewal of the insurance. A renewal certificate will be sent to the above address 10 days prior to coverage expiration. The procuring of such required insurance shall not be construed to limit Contractor's liability hereunder. Notwithstanding said insurance, Contractor shall be obligated for the total amount of any damage, injury, or loss connected with this Contract.

H. Primary Coverage Clarification: All parties to this contract hereby agree that the contractor's coverage will be primary in the event of a loss.

I. Cross-Liability Clause: A cross-liability clause or separation of insureds clause will be included in all general liability policies required by this Contract.

U. Method and Place of Giving Notice, Submitting Bills and Making Payments

All notices, bills and payments shall be made in writing and may be given by personal delivery or by email. Notices, bills and payments sent by email should be addressed as follows:

CITY OF TIGARD		(CONTRACTOR)	
Attn:	Jeff Peck	Attn:	(insert contract manager's name)
Address:	13125 SW Hall Boulevard Tigard, Oregon 97223	Address:	(insert contract manager's address)
Phone:	(503) 718-2466	Phone:	(insert #)
Email:	jeffp@tigard-or.gov	Email:	(insert address)

and when so addressed, shall be deemed given upon deposit in the United States mail, postage prepaid. In all other instances, notices, bills and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills and payments are to be given by giving written notice pursuant to this paragraph. Invoices shall list each project separately with work completed and amount due for each.

V. Severability

In the event any provision or portion of this Agreement is held to be unenforceable or invalid by any court of competent jurisdiction, the remainder of this Agreement shall remain in full force and effect and shall in no way be affected or invalidated thereby.

W. Complete Agreement

This Agreement constitutes the entire Agreement between the parties. No waiver, consent, modification, or change of terms of this Agreement shall bind either party unless in writing and signed by both parties. Such waiver, consent, modification, or change if made, shall be effective only in specific instances and for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this Agreement. Contractor, by the signature of its authorized representative, hereby acknowledges that he has read this Agreement, understands it and agrees to be bound by its terms and conditions.

IN WITNESS WHEREOF, City and Contractor have caused this Agreement to be executed by their duly authorized officials. Awarded by Tigard's Local Contract Review Board at their _____meeting.

CITY OF TIGARD	CONTRACTOR
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

ATTACHMENT G – PERFORMANCE BOND
PUBLIC IMPROVEMENT CONTRACT
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Bond Number:_____
Project Name: _____

_____	(Surety #1)	Bond Amount No. 1: $ _____
_____	(Surety #2)*	Bond Amount No. 2:* $ _____
** If using multiple sureties*		Total Penal Sum of Bond: $ _____

We, _____ as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors, and assigns firmly by these presents to pay unto the City of Tigard, a municipality of the State of Oregon, the sum of (total Penal Sum of Bond)_____ (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposed each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into a Contract with the City of Tigard, the plans, specifications, terms, and conditions of which are contained in the above-referenced project solicitation;

WHEREAS, the terms and conditions of the Contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of Contract Prices, are made a part of this Performance Bond by reference, whether or not attached to the Contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans, and specifications, and all authorized modifications of the Contract which increase the amount of the work, the amount of the Contract, or constitute an authorized extension of the time for performance, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal herein shall faithfully and truly observe and comply with the terms of the Contract and performs the Contract within the time prescribed by the Contract, then this obligation is null and void; otherwise, it shall remain in full force and effect. If the Contractor is declared by City to be in default under the Contract, the surety shall promptly remedy the default, perform all of Contractor's obligations under the Contract in accordance with its terms and conditions and pay to City all damages that are due under the Contract. This obligation jointly and severally binds the Contractor and surety and their respected heirs, executors, administrators, and successors. Nonpayment of the bond premium shall not invalidate this bond, nor shall the City of Tigard be obligated for the payment of any premiums.

Said surety for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract, or the Work to be performed thereunder, or the specifications accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the Work or to the specifications.

This Performance Bond shall also guarantee the subject project against defects in materials or workmanship for a period of one (1) year from the date of written Substantial Completion acceptance of the subject project by the City of Tigard.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of _____, _____.

PRINCIPAL:_____

By: _____
Signature

_____
Printed Name & Title

Attest: _____

SURETY:_____
(Add signatures for each surety if using multiple bonds)

BY ATTORNEY-IN-FACT:
(Power-of-Attorney must accompany each surety bond)

_____
Name

_____
Signature

_____
Address

_____
City State Zip

_____
Phone Fax

ATTACHMENT H – PAYMENT BOND
PUBLIC IMPROVEMENT CONTRACT
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Bond Number:_____
Project Name: _____

_____ (Surety #1) Bond Amount No. 1: $ _____
_____ (Surety #2)* Bond Amount No. 2:* $ _____
* *If using multiple sureties* Total Penal Sum of Bond: $ _____

We, _____ as Principal, and the above identified Surety(ies), authorized to transact surety business in Oregon, as Surety, hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors, and assigns firmly by these presents to pay unto the City of Tigard, a municipality of the State of Oregon, the sum of (total Penal Sum of Bond)_____ (Provided, that we the Sureties bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposed each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety), and

WHEREAS, the Principal has entered into a Contract with the City of Tigard, the plans, specifications, terms, and conditions of which are contained in above-referenced project solicitation;

WHEREAS, the terms and conditions of the Contract, together with applicable plans, standard specifications, special provisions, schedule of performance, and schedule of Contract Prices, are made a part of this Payment bond by reference, whether or not attached to the Contract (all hereafter called "Contract"); and

WHEREAS, the Principal has agreed to perform the Contract in accordance with the terms, conditions, requirements, plans, and specifications, and schedule of Contract Prices which are set forth in the Contract and any attachments, and all authorized modifications of the Contract which increase the amount of the work, or the cost of the Contract, or constitute authorized extensions of time for performance of the Contract, notice of any such modifications hereby being waived by the Surety:

NOW, THEREFORE, THE CONDITION OF THIS BOND IS SUCH that if the Principal shall faithfully and truly observe and comply with the terms, conditions, and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things to be performed under said Contract and any duly authorized modifications that are made, upon the terms set forth therein, and within the time prescribed therein, or as extended therein as provided in the Contract, with or without notice to the Sureties, and shall indemnify and save harmless the City of Tigard its officers, agents, and employees against any claim for direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the Contract by the Contractor or its subcontractors, and shall promptly pay all persons supplying labor, materials, or both to the Principal or its subcontractors for prosecution of the work provided in the Contract; and shall promptly pay all contributions due the State Industrial Accident Fund and the State Unemployment Compensation Fund from the Principal or its subcontractors in connection with the performance of the Contract; and shall pay over to the Oregon Department of Revenue all sums required to be deducted and retained from the wages of employees of the Principal and its subcontractors pursuant to ORS 316.167, and shall permit no lien nor claim to be filed or prosecuted against the City on account of any labor or materials furnished; and shall do all things required of the Principal by the laws of the State of Oregon, then this obligation shall be void; otherwise, it shall remain in full force and effect.

Nonpayment of the bond premium will not invalidate this bond, nor shall the City of Tigard be obligated for the payment of any premiums.

IN WITNESS WHEREOF, WE HAVE CAUSED THIS INSTRUMENT TO BE EXECUTED AND SEALED BY OUR DULY AUTHORIZED LEGAL REPRESENTATIVES.

Dated this _____ day of _____, _____.

PRINCIPAL:_____

By:_____
Signature

_____
Printed Name & Title

Attest: _____

SURETY:_____
(Add signatures for each surety if using multiple bonds)

BY ATTORNEY-IN-FACT:
(Power-of-Attorney must accompany each surety bond)

_____
Name

_____
Signature

_____
Address

_____
City State Zip

_____
Phone Fax

ATTACHMENT I – OREGON PREVAILING WAGE RATES
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Download from: http://www.oregon.gov/boli/WHD/PWR/Pages/pwr_state.aspx

ATTACHMENT J – GENERAL CONDITIONS
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

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Section 00110 - Organization, Conventions, Abbreviations, and Definitions

00110.00 Organization of Specifications – The Specifications are comprised of the following:

A. The "General Conditions for Construction for the City of Tigard," published by the Agency, which contain Part 00100 "General Conditions", which deal with the solicitation process and contractual relationships;
B. The "2024 Oregon Standard Specifications for Construction," which contain Parts 00200 through 03000, published by the Oregon Department of Transportation which contain the detailed "Technical Specifications" involved in prosecution of the Work, organized by subject matter; and
C. The Special Provisions.

In addition, throughout the Specifications:

A. Each Part is divided into Sections and Subsections.
B. Reference to a Section includes all applicable requirements of the Section.
C. When referring to a Subsection, only the number of the Subsection is used; the word "Subsection" is implied.
D. Where Section and Subsection numbers are not consecutive, the interval has been reserved for use in the Special Provisions or future expansion of the Standard Specifications.

00110.05 Conventions Used Throughout the Specifications Include:

A. Grammar - The "General Conditions for Construction for the City of Tigard", part 00100 "General Conditions", is written in the indicative mood, in which the subject is expressed. The "2024 Oregon Standard Specifications for Construction", published by the Oregon Department of Transportation, which contain parts 00200 through 03000, the detailed "Technical Specifications", are generally written in the imperative mood, in which the subject is implied. Therefore, throughout Parts 00200 through 03000, and on the Plans:

1. The subject, "the Contractor", is implied.
2. "Shall" refers to action required of the Contractor and is implied.
3. "Will" refers to decisions or actions of the Agency and/or the Engineer.
4. The following words, or words of equivalent meaning, refer to the actions of the Agency and/or the Engineer, unless otherwise stated: "allowed", "directed", "established", "permitted", "ordered", "designated", "prescribed", "required", "determined".
5. The words "approved", "acceptable", "authorized", "satisfactory", "suitable", "considered", and "rejected", "denied", "disapproved", or words of equivalent meaning, mean by or to the Agency and/or the Engineer, subject in each case to Section 00150 of the General Conditions.
6. The words "as shown", "shown", "as indicated", or "indicated" mean "as indicated on the Plans".
7. Certain Subsections labeled "Payment" contain statements to the effect that "payment will be made at the Contract amounts for the following items" (followed by a list of items). In such cases the Agency shall pay for only those Pay Items listed in the Schedule of Items.

B. Capitalization of Terms - Capitalized terms, other than titles, abbreviations, and grammatical usage, indicate that they have been given a defined meaning in the Standard Specifications. Refer to Section 00110.20 "Definitions". Defined terms will always be capitalized in Part 00100; in Parts 00200 through 03000, defined terms will generally not be capitalized, with the notable exception of "the Contractor", "the Agency", and "the Engineer".

C. Punctuation - In this publication the "outside method" of punctuation is employed for placement of the comma and the period with respect to quotation marks. Only punctuation that is part of the quoted matter is placed within quotation marks.

D. References to Laws, Acts, Regulations, Rules, Ordinances, Statutes, Orders, and Permits - References are made in the text of the Specifications to "laws", "acts", "rules", "statutes", "regulations", "ordinances", etc. (collectively referred to for purposes of this Subsection as "Law"), and to "orders" and "permits" (issued by a governmental authority, whether local, State, or federal, and collectively referred to for purposes of this Subsection as "Permits"). Reference is also made to "applicable laws and regulations". The following conventions apply in interpreting these terms, as used in the Specifications.

1. Statues and Rules – Oregon Revised Statutes (ORS) and Oregon Administrative Rules (OAR) referenced in the Specifications are accessible on line, including through the Oregon Legislative Counsel Committee web site and through the Oregon Secretary of State Archives Division web site.

2. Law – In each case, unless otherwise expressly stated therein, the Law is to be understood to be the current version in effect. This also applies where a specific Law is referenced or cited, regardless of whether the text of the Law has been included in the Specifications or not, and regardless of whether the text of the Law has been summarized or paraphrased. In each case, the current version of the Law is applicable under any Contract. The reader is therefore cautioned to check the actual text of the Law to confirm that the text included in the Specifications has not been modified or superseded.

3. Permits - Orders and Permits issued by a Government agency may be modified during the course of performing the Work under a Contract. Therefore, wherever the term "Order" or "Permit" is used in the Specifications, it is intended to refer to the then-current version. That version may be embodied in a modified, superseding order or permit, or it may consist of all terms and conditions of prior orders or permits that have not been superseded, as well as the additional terms added by amendment or supplement. In certain cases, the orders and/or permits are identified by name in the Specifications; in other cases the terms are used in the generic sense. The reader is cautioned to check the text(s) of each order and permit identified either by name or by generic reference.

4. Applicable Laws and Regulations - Where the phrase "applicable laws and regulations" appears, it is to be understood as including all applicable laws, acts, regulations, administrative rules, ordinances, statutes, and orders and permits issued by a governmental or regulatory authority.

E. References to Websites - For Specifications that reference this Subsection, the Agency will identify the website addresses in the Special Provisions.

00110.10 Abbreviations - Following are meanings of abbreviations used in the Standard Specifications, in the Special Provisions, on the Plans, and in other Contract Documents. Other abbreviations and meanings of abbreviations may be in the individual Sections of the Standard Specifications to which they apply, in the Special Provisions, and in OAR 731-005 and OAR 731-007.

AAR - Association of American Railroads
AASHTO - American Association of State Highway and Transportation Officials
ABC - Associated Builders and Contractors, Inc.
AC - Asphalt Concrete
ACI - American Concrete Institute
ACP - Asphalt Concrete Pavement

ACWS - Asphalt Concrete Wearing Surface
AGC - Associated General Contractors of America
AIA - American Institute of Architects
AISC - American Institute of Steel Construction
AISI - American Iron and Steel Institute
AITC - American Institute of Timber Construction
ANSI - American National Standards Institute
APA - Engineered Wood Association
APWA - American Public Works Association
AREMA - American Railway Engineering and Maintenance of Right-of-Way Association
ASCE - American Society of Civil Engineers
ASME - American Society of Mechanical Engineers
ASTM - American Society for Testing and Materials
ATPB - Asphalt Treated Permeable Base
AWG - American Wire Gauge
AWPA - American Wood Protection Association
AWS - American Welding Society
AWWA - American Water Works Association
CAgT - Certified Aggregate Technician
CAT-I - Certified Asphalt Technician I
CAT-II - Certified Asphalt Technician II
CBM - Certified Ballast Manufacturers
CCO - Contract Change Order
CCT - Concrete Control Technician
CDT - Certified Density Technician
CEBT - Certified Embankment and Base Technician
CMDT - Certified Mixture Design Technician
CPF - Composite Pay Factor
CRSI - Concrete Reinforcing Steel Institute
CFR - Code of Federal Regulations
CS - Commercial Standard, Commodity Standards Division, U.S. Department of Commerce
D1.1 - Structural Welding Code - Steel, American Welding Society, current edition
D1.5 - Bridge Welding Code, American Welding Society, current edition
DBE - Disadvantaged Business Enterprise
DEQ - Department of Environmental Quality, State of Oregon
DOGAMI - Department of Geology and Mineral Industries, State of Oregon
DSL - Department of State Lands, State of Oregon
EAC - Emulsified Asphalt Concrete
EPA - U.S. Environmental Protection Agency
ESCP - Erosion and Sediment Control Plan
FHWA - Federal Highway Administration, U.S. Department of Transportation
FSS - Federal Specifications and Standards, General Services Administration
GSA - General Services Administration
ICEA - Insulated Cable Engineers Association (formerly IPCEA)
IES - Illuminating Engineering Society
IMSA - International Municipal Signal Association
ISO - International Standards Organization

ITE - Institute of Transportation Engineers
JMF - Job Mix Formula
MFTP - Manual of Field Test Procedures (ODOT)
MIL - Military Specifications
MSC - Minor Structure Concrete
MUTCD - Manual on Uniform Traffic Control Devices for Streets and Highways, FHWA, U.S. Department of Transportation
NEC - National Electrical Code
NEMA - National Electrical Manufacturer's Association
NESC - National Electrical Safety Code
NIST - National Institute of Standards and Technology
NPDES - National Pollutant Discharge Elimination System
NPS - Nominal Pipe Size (dimensionless)
OAR - Oregon Administrative Rules
ODA - Oregon Department of Agriculture
ODOT - Oregon Department of Transportation
ORS - Oregon Revised Statutes
OR-OSHA - Oregon Occupational Safety and Health Division of the Department of Consumer and Business Services
OSHA - Occupational Safety and Health Administration, U.S. Department of Labor
PCA - Portland Cement Association
PCC - Portland Cement Concrete
PCI - Precast/Prestressed Concrete Institute
PCP - Pollution Control Plan
PF - Pay Factor of a constituent
PLS - Professional Land Surveyor
PMBB - Plant Mixed Bituminous Base
PTI - Post-Tensioning Institute
PUC - Public Utility Commission, State of Oregon
QA - Quality Assurance
QC - Quality Control
QCT - Quality Control Technician
QL - Quality Level
QPL - Qualified Products List
RAP - Reclaimed Asphalt Pavement
REA - Rural Electrification Administration, U.S. Department of Agriculture
RMA - Radio Manufacturers Association or Rubber Manufacturers Association
SAE - Society of Automotive Engineers
SI - International System of Units (Système Internationale)
SRCM - Soil and Rock Classification Manual (ODOT)
SSPC - Society for Protective Coatings
T - Tolerances, AASHTO Test Method
TM - Test Method (ODOT)
TV - Target Value
UBC - Uniform Building Code (as adopted by the State of Oregon)
UL - Underwriters Laboratory, Inc.
UPC - Uniform Plumbing Code (as adopted by the State of Oregon)

USC - United States Code
WAQTC - Western Alliance for Quality Transportation Construction
WCLIB - West Coast Lumber Inspection Bureau
WWPA - Western Wood Products Association

00110.20 Definitions - Following are definitions of words and phrases used in the Standard Specifications, in the Special Provisions, on the Plans, and in other Contract Documents. Other definitions may be in the individual Sections of the Standard Specifications to which they apply, in the Special Provisions, and in OAR 731-005 and OAR 731-007.

Act of God or Nature - A natural phenomenon of such catastrophic proportions or intensity as would reasonably prevent performance.

Addendum - A written or graphic modification, issued before the opening of Bids, which revises, adds to, or deletes information in the Solicitation Documents or previously issued Addenda.

Additional Work - Increased quantities of any Pay Item, within the scope of the Contract, for which a unit price has been established.

Advertisement - The public announcement (Notice to Contractors, Invitation to Bid or Advertisement for Bids) inviting Bids for Work to be performed or Materials to be furnished.

Agency - The City of Tigard, a municipal corporation of the State of Oregon, which has entered into a Contract with the Contractor.

Agency-Controlled Lands - Lands owned by the Agency, or controlled by the Agency under lease or agreement, or under the jurisdiction and control of the Agency for the purposes of the Contract.

Aggregate - Rock of specified quality and gradation.

Attorney in Fact - An Entity appointed by another to act in its place, either for some particular purpose, or for the transaction of business in general.

Award - Written notification to the Bidder that the Bidder has been awarded a Contract.

Base - A Course of specified material of specified thickness placed below the Pavement.

Bid - A competitive offer, binding on the Bidder and submitted in response to an invitation to bid.

Bid Bond - The Surety bond for Bid guarantee.

Bid Booklet - The information included in the Solicitation Documents that contain the information identified in 00120.10.

Bid Closing - The date and time after which Bids, Bid modifications, and Bid withdrawals will no longer be accepted.

Bid Documents - See under Solicitation Documents.

Bid Opening - The date and time Bids are opened.

Bid Schedule - The list of Pay Items, their units of measurement, and estimated quantities. (When a Contract is awarded, the Bid Schedule becomes the Schedule of Items.)

Bid Section - The portion of the Bid Booklet containing all pages after the Bidder's checklist and before the appendix.

Bidder - An Entity that submits a Bid in response to an invitation to bid.

Bike Lane - A lane in the Traveled Way, designated by striping and Pavement markings for the preferential or exclusive use of bicyclists.

Borrow - Material lying outside of planned or required Roadbed excavation used to complete Project earthwork.

Boulders - Particles of rock that will not pass a 12 inch square opening.

Bridge - A single or multiple span Structure, including supports, that carries motorized and non-motorized vehicles, pedestrians, or utilities on a Roadway, walk, or track over a watercourse, highway, railroad, or other feature.

Buttress - A rock fill placed at the toe of a landslide or potential landslide in order to resist slide movement.

Calendar Day - Any day shown on the calendar, beginning and ending at midnight.

Camber - A slight arch in a surface or Structure to compensate for loading.

Change Order - A written order issued by the Engineer to the Contractor modifying Work required by the Contract, or adding Work within the scope of the Contract, and, if applicable, establishing the basis of payment for the modified Work.

Changed Work - Work included in a Pay Item and within the scope of the Contract that is different from that reflected in the Contract Documents. (see 00140.30)

Class of Project - A designation based on a Project's funding source, i.e., State or Federal-Aid.

Class of Work - A designation referring to the type of Work in which Bidders must be pre-qualified, if prequalification is required

Clay - Soil passing a No. 200 sieve that can be made to exhibit plasticity (putty-like properties) within a range of water contents.

Clear Zone - Roadside border area, starting at the edge of the Traveled Way, that is available for safe use by errant vehicles. Establishing a minimum width Clear Zone implies that rigid objects and certain other hazards within the Clear Zone should be relocated outside the Clear Zone, or shielded, or remodeled to make them break away on impact or be safely traversable.

Close Conformance - Where working tolerances are given on the Plans or in the Specifications, Close Conformance means compliance with those tolerances. Where working tolerances are not given, Close

Conformance means compliance, in the Engineer's judgment, with reasonable and customary manufacturing and construction tolerances.

Coarse Aggregate - Crushed Rock or crushed Gravel retained on a 1/4-inch sieve, with allowable undersize.

Cobbles - Particles of Rock, rounded or not, that will pass a 12-inch square opening and be retained on a 3 inch sieve.

Commercial Grade Concrete - Concrete furnished according to Contractor proportioning, placed in minor Structures and finished as specified.

Conduct Disqualification - A disqualification under ORS 279C.440.

Contract - The written agreement between the Agency and the Contractor, including without limitation all Contract Documents, describing the Work to be completed and defining the rights and obligations of the Agency and the Contractor.

Contract Amount (Contract Price) - Sum of the Pay Item amounts computed by multiplying the Pay Item quantities by the unit prices in the Schedule of Items.

Contract Day - A day counted for purposes of charging Contract Time.

Contract Documents - Solicitation Documents, Specifications, Standard and Supplemental Drawings, Contract Booklet, Change Orders, Force Account Work orders, pay documents issued by the Agency, Materials certifications, Project Work schedules, final estimate, written orders and authorizations issued by the Agency, Material source development and reclamation plans, and permits, orders and authorizations obtained by the Contractor or Agency applicable to the Project, as well as all documents incorporated by reference therein.

Contract Time - The amount of time allowed to complete the Work under the Contract.

Contractor - The Entity awarded the Contract according to the solicitation.

Correction Period - Period from Second Notification to Final Acceptance as per subsection 00170.85B.

Course - A specified Surfacing Material placed in one or more Lifts to a specified thickness.

Coverage - One Pass by a piece of Equipment over an entire designated area.

Cross Section - The exact image formed by a plane cutting through an object, usually at right angles to a central axis, to determine area.

Day - A Calendar Day including weekdays, weekends, and holidays, unless otherwise specified.

Defective - An adjective which when modifying the word "Work" refers to work that: (1) is unsatisfactory, faulty or deficient; (2) does not conform to the Contract Documents; (3) does not meet the requirements of any inspection, test for approval referred to in the Contract Documents; or (4) has been damaged prior to Engineer's recommendation for final payment.

Design Professional - The individual or entity named in the Special Provisions who designed part or all of the Project and who, by contract, has been assigned duties and responsibilities to assist Agency and Project Manager in administration of the Contract.

Digital Signature - A form of electronic signature that is registered with a certification authority, e.g., VeriSign or similar digital signature software company, which requires a password to be entered in order to generate the digital signature upon the electronic document. Once the digital signature is applied, any alteration of the document results in the elimination of the digital signature on the document.

Disqualification - The preclusion of a Person from contracting with a Contracting Agency for a period of time in accordance with OAR 137-049-0370.

Drawings (Plans) - Standard and Project Drawings and approved unstamped and reviewed and accepted stamped Shop Drawings and Deferred Submittals. (see 00150.10 and 00150.35)

Durable Rock - Rock that has a slake durability index of at least 90% based on a two-cycle slake durability test, according to ASTM D 4644. In the absence of test results, the Engineer may evaluate the durability visually.

Emulsified Asphalt - Emulsified asphalt cement.

Emulsified Asphalt Concrete - A mixture of Emulsified Asphalt and graded Aggregate.

Engineer - Project Manager – See Project Manager.

Entity - A natural person capable of being legally bound, sole proprietorship, limited liability company, corporation, partnership, limited liability partnership, limited partnership, profit or nonprofit unincorporated association, business trust, two or more persons having a joint or common economic interest, or any other person with legal capacity to contract, or a government or governmental subdivision.

Equipment - All machinery, tools, manufactured products, and fabricated items needed to complete the Contract or specified for incorporation into the Work.

Establishment Period - The time specified to assure satisfactory establishment and growth of planted Materials.

Existing Surfacing - Pavements, slabs, curbs, gutters, walks, driveways, and similar constructions of bricks, blocks, Portland cement concrete, bituminous treated materials, and granular surfacing materials on existing Highways.

Extra Work - Work not included in the Contract but deemed by the Engineer to be necessary to complete the Project.

Field Order – A written order issued by the Engineer which requires minor changes in the Work but which may not involve a change in the Contract Amount or the Contract Times.

Final Acceptance - Written confirmation by the Agency that the Project has been completed according to the Contract including all corrective work identified by the Agency during the Correction Period, with the exception of latent defects and Warranty obligations, if any, and has been accepted.

Final Inspection - The inspection conducted by the Engineer to determine that the Project has been completed according to the Contract.

Fine Aggregate - Crushed Rock, crushed Gravel, or Sand that passes a 1/4 inch sieve, with allowable oversize.

First Notification - Written Notice to Proceed issued to the Contractor by the Engineer.

Force Account Work - Items of Extra Work ordered by the Engineer that are to be paid according to Section 00197.

Granular Material - Graded and selected free-draining material composed of particles of Rock, Sand, and Gravel.

Gravel - Particles of Rock, rounded or not, that will pass a 3 inch sieve and be retained on a No. 4 sieve.

Highway - Every road, street, thoroughfare and place, including bridges, viaducts and other structures within the boundaries of the State, open, used or intended for use by vehicular traffic.

Incidental - A term identifying those acts, services, transactions, property, Equipment, labor, Materials, or other items for which the Agency will make no separate or additional payment.

Inspector - The representative of the Engineer authorized to inspect and report on Contract performance.

Leveling - Placing a variable-thickness Course of Materials to restore horizontal and vertical uniformity to existing Pavements, normally continuous throughout the Project.

Lift - The compacted thickness of material placed by Equipment in a single Pass.

Local Contracting Review Board – The City Council of the City of Tigard (Agency).

Mandatory Source - A material source provided by the Agency from which the Contractor is required to obtain Materials. (see 00160.00B and 00160.40)

Materials - Any natural or manmade substance specified for use in the construction of the Project or for incorporation into the Work.

Median - The portion of a divided Highway separating traffic traveling in opposite directions.

Milestone - A principal event or activity specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

Multiple Course Construction - Two or more Courses, exclusive of Patching or Leveling, placed over the entire Roadway width.

Multi-Use Path - That portion of the Highway Right-of-Way or a separate Right-of-Way, physically separated from motor vehicle traffic and designated for use by pedestrians, bicyclists and other non-motorized users.

Neat Line - Theoretical lines specified or indicated on the Plans for measurement of quantities.

Nondurable Rock - Rock that has a slake durability index of less than 90% based on a two-cycle slake durability test, as tested by ASTM D 4644, or Rock that is observed to readily degrade by air, water, and mechanical influence.

Notice to Contractors - The public announcement inviting Bids for Work to be performed or Materials to be provided.

Notice to Proceed - Written notice authorizing the Contractor to begin performance of the Work.

On-Site Work - Any Work taking place on the Project Site, including designated staging areas adjacent to the Project Site, except for installation of covered temporary signs according to Section 00225.

Organic Soil - A Soil with sufficient organic content to influence the Soil properties.

Panel - The width of specified Material being placed by Equipment in a single Pass.

Pass - One movement of a piece of Equipment over a particular location.

Patching - Placing a variable-thickness Course of Materials to correct sags, dips, and/or bumps to the existing grade and Cross Section, normally intermittent throughout the Project.

Pavement - Asphalt concrete or Portland cement concrete placed for the use of motor vehicles, bicycles, or pedestrians on Roadways, Shoulders, Multi-Use Paths and parking areas.

Pay Item (Contract Item) - A specific unit of Work for which a price is provided in the Contract.

Payment Bond - The approved security furnished by the Contractor's Surety as a guaranty of the Contractor's performance of its obligation to pay promptly in full all sums due for Materials, Equipment, and labor furnished to complete the Work.

Peat - A Soil composed primarily of vegetative matter in various stages of decomposition, usually with an organic odor, dark brown to black color, and a spongy consistency.

Performance Bond - The approved security furnished by the Contractor's Surety as a guaranty of the Contractor's performance of the Contract.

Project - The sum of all Work to be performed under the Contract.

Project Drawings - The Agency-prepared detailed drawings for Work or methods of construction that are Project specific and are denoted by title in the Project title block.

Project Manager – The Agency's representative assigned by the Agency to administer the Contract and who assumes the responsibilities, duties and authorities of the Project Manager (Engineer) as indicated throughout the Contract Documents.

Project Site - The geographical dimensions of the real property on which the Work is to be performed, including designated contiguous staging areas.

Prospective Source - A Material source provided by the Agency, from which the Contractor has the option of obtaining Materials. (see 00160.00A and 00160.40)

Publicly Owned Equipment - Equipment acquired by a state, county, municipality or political subdivision primarily for use in its own operations.

Public Traffic - Vehicular or pedestrian movement, not associated with the Contract Work, on a public way.

Railroad - Publicly or privately owned rail carriers, including passenger, freight, and commuter rail carriers, their tenants, and licensees. Also, Utilities that jointly own or use such facilities.

Right-of-Way - Land, property, or property interest, usually in a strip, acquired for or devoted to transportation or other public works purposes.

Roadbed - Completed excavations and embankments for the Subgrade, including ditches, side slopes, and slope rounding, if any.

Roadside - The area between the outside edges of the Shoulders and the Right-of-Way boundaries. Unpaved median areas between inside Shoulders of divided Highways and infield areas of interchanges are included.

Roadway - That portion of a Highway improved, designed, or ordinarily used for vehicular travel, exclusive of the berm or Shoulder. If a Highway includes two or more separate Roadways, the term "Roadway" refers to any such Roadway separately, but not to all such Roadways collectively. (see Traveled Way)

Rock - Natural deposits of solid material composed of one or more minerals occurring in large masses or fragments.

Schedule of Items - The list of Pay Items, their units of measurement, estimated quantities, and prices.

Schedule of Values - The breakdown of the values of the component elements comprising a lump sum Pay Item.

Second Notification - Written acknowledgment by the Engineer of Substantial Completion of a Milestone or of the Work according to 00180.50G.

Shoulder - The part of a Roadbed contiguous to the Traveled Way or Roadway, whether paved or unpaved, for accommodating stopped vehicles, for emergency use and for lateral support of Base and surface Courses.

Silt - Soil passing a No. 200 sieve that is nonplastic or exhibits very low plasticity.

Single Course Construction - A wearing Course only, not including patching or leveling Courses or partial width Base Course.

Slope - Vertical distance to horizontal distance, unless otherwise specified.

Soil - Accumulations of particles produced by the disintegration of Rock, which sometimes contains organic matter. Particles may vary in size from Clay to Boulders.

Solicitation Documents - Documents which define the procurement of a public improvement Project, including, but not limited to, the Bid Booklet, Contract Booklet, Agency-provided Plans, Standard

Specifications, Special Provisions, Addenda, and which includes all documents incorporated by reference. May also be called Bid Documents.

Special Provisions - The special directions, provisions, and requirements specific to a Project that supplement or modify the Standard Specifications. Permits and orders governing the Project that are issued directly to the Agency by a governmental or regulatory authority are considered to be part of the Special Provisions, to the extent and under the conditions stipulated in the Special Provisions.

Specifications - The Standard Specifications and Special Provisions, together with all provisions of other documents incorporated therein by reference.

Standard Drawings - The Agency-prepared detailed drawings for Work or methods of construction that normally do not change from project to project.

Standard Specifications – The "General Conditions for Construction for the City of Tigard" published by the Agency, and the "2024 Oregon Standard Specifications for Construction", Parts 00200 through 03000, "Technical Specifications", published by the Oregon Department of Transportation as amended by the Agency. It provides directions, provisions, and requirements necessary for performing public improvement projects.

State - The State of Oregon.

Structures - Bridges, retaining walls, endwalls, cribbing, buildings, culverts, manholes, catch basins, drop inlets, sewers, service pipes, underdrains, foundation drains, and other similar features which may be encountered in the Work.

Subbase - A Course of specified material of specified thickness between the Subgrade and a Base.

Subcontractor - An Entity having a direct contract with the Contractor or another Subcontractor, to perform a portion of the Work.

Subgrade - The top surface of completed earthwork on which Subbase, Base, Surfacing, Pavement, or a Course of other Material is to be placed.

Substantial Completion – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended.

Substructure - Those parts of a Structure which support the Superstructure, including bents, piers, abutments, and integrally built wingwalls, up to the surfaces on which bearing devices rest. Substructure also includes portions above bearing surfaces when those portions are built integrally with a Substructure unit (e.g., backwalls of abutments). When Substructure and Superstructure elements are built integrally, the division between Substructure and Superstructure is considered to be at the bottom soffit of the longitudinal or transverse beam, whichever is lower. Culverts and rigid frames are considered to be entirely Substructure.

Superstructure - Those parts of a Structure above the Substructure, including bearing devices.

Supplier - The Entity that furnishes goods to be incorporated into the Work.

Surety - The Entity that issues the bond.

Surfacing - The Course or Courses of material on the Traveled Way, auxiliary lanes, Shoulders, or parking areas for vehicle use.

Third Notification - Written acknowledgment by the Engineer, subject to Final Acceptance, that as of the date of the notification the Contractor has achieved Final Completion of the Project according to the Contract, including without limitation completion of all minor corrective work, Equipment and plant removal, site clean-up, and submittal of all certifications, bills, forms and documents required under the Contract.

Ton - One short ton of 2,000 pounds (Ton, ton, Tn, or T).

Topsoil - Soil ready for use in a planting bed.

Traffic Lane - That part of the Traveled Way marked for moving a single line of vehicles.

Traveled Way - That part of the Highway for moving vehicles, exclusive of berms and Shoulders.

Typical Section - That Cross Section established by the Plans which represents in general the lines to which the Contractor shall work in the performance of the Contract.

Unsuitable Material - Frozen material, or material that contains organic matter, muck, humus, peat, sticks, debris, chemicals, toxic matter, or other deleterious materials not normally suitable for use in earthwork.

Utility - A line, facility, or system for producing, transmitting, or distributing communications, power, electricity, heat, gas, oil, water, steam, waste, storm water not connected with highway drainage, or any other similar commodity which directly or indirectly serves the public. The term may also mean the utility company, district, or cooperative owning and operating such facilities, including any wholly-owned or controlled subsidiary.

Warranty Bond - The approved security furnished by the Contractor's, Subcontractor's, Manufacturer's, Installer's or Supplier's Surety as a guaranty of performance of their respective warranty obligations.

Work - The furnishing of all Materials, Equipment, labor, and Incidentals necessary to successfully complete any individual Pay Item or the entire Contract, and the discharge of duties and obligations imposed by the Contract.

Work Change Directive – A written statement to Contractor issued on or after the Date of the Agreement and signed by Agency and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Amount or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Amount or Contract Times.

Work Day - Every Calendar Day excluding Saturdays, Sundays and legal holidays as listed in ORS187.010.

Worker - Any person performing work under the contract, including employees of the Contractor or subcontractor, and persons having full or partial ownership of the Contractor or subcontractor. (This

definition is not intended to nor does it alter the definition or meaning of the term "worker" as used in any applicable laws or regulations, including but not limited to for purposes of paying prevailing wage rates.)

Working (Shop) Drawings - Supplemental Plans, not furnished by the Agency, that the Contractor is required to submit to the Engineer. (see 00150.35)

Workplace Violence - Any act of physical, verbal or written aggression by an individual in or related to the workplace and/or project sites. This includes, but is not limited to, verbal abuse, threats or intimidation and physical intimidation, assault or battery by a worker or former worker. Workplace violence may also include destruction or abuse of property.

Section 00120 - Bidding Requirements and Procedures

00120.01 Receipt of Bids; Opening – See Special Provisions.

00120.02 Prequalification of Bidders – See Special Provisions.

00120.03 Request for Solicitation Documents – See Special Provisions.

00120.04 Pre-Bid Meeting – See Special Provisions.

00120.10 Bid Booklet – The Bid Booklet may include, but is not limited to:

A. Advertisement for Bids
B. Bidder's checklist
C. Bid Section
D. Appendix, which includes required time-sensitive forms, DBE information, sample forms, and other informational pages

The Bid Section includes all pages after the Bidder's checklist and before the appendix. The Bid Section may include, but is not limited to:

A. Description and location of the proposed Project
B. Time, date, and location for opening Bids
C. Project completion time
D. Class of Project (i.e., Federal-Aid or State)
E. Class of Work
F. Bid statement
G. Certificate of non-collusion
H. Certificate of Nondiscrimination regarding ORS 279A.110 and certificate regarding policy and practice against sexual harassment, sexual assault and discrimination against employees who are members of a protected class as required by ORS 279A.112.
I. Certificate of noninvolvement in any debarment or suspension (for Federal-Aid Projects)
J. Certificate regarding lobbying activities (for Federal-Aid Projects)
K. Certificate of residency (for State Projects)
L. Certificate of compliance with Oregon tax laws
M. Bid Schedule
N. Acknowledgement of Addenda
O. Identification of Bidder(s) and Sureties
P. Bid signature page
Q. Bid Bond form
R. First-tier Subcontractor Disclosure form

Depending on the Class of Project, other certificates or statements may be bound within the Bid Section. Plans, Specifications, and other documents referred to in the Bid Section will be considered part of the Bid.

00120.15 Examination of Work Site and Solicitation Documents; Consideration of Conditions to be Encountered – Before submitting a Bid, Bidders shall make a careful visual examination of the site of the proposed Work, the Bid Booklet, Plans, and Specifications. Bidders shall also review any subsurface investigation material referenced in 00120.25 that may be available and conduct additional investigation of any unusual condition apparent during the visual site examination. As soon as reasonably practicable after noting any such unusual condition, Bidder shall notify Agency, in writing, of any such unusual condition and the additional investigation undertaken by Bidder. Submission of a Bid will constitute confirmation that the Bidder has examined the Project Site and finds the Plans and Specifications to be sufficiently detailed and

accurate to enable Bidder to properly perform the Work, and understands the conditions to be encountered in performing the Work and all requirements of the Contract.

The Bidder is responsible for loss or unanticipated costs suffered by the Bidder because of the Bidder's failure to fully examine the site and become fully informed about all conditions of the Work, or failure to request clarification of Plans and Specifications Bidder believes to be erroneous or incomplete.

Any clarification of Plans and Specifications needed by the Bidder shall be requested in writing by e-mail through the Engineer. Notification of erroneous or incomplete Plans or Specifications shall also be submitted to the Engineer. Unless the procurement period is shorter than one week, notifications and requests for changes or clarification shall be submitted at least seven Days prior to the date of Bid Closing. The Agency will respond to each request at least 72 hours prior to the date of Bid Closing. If the Procurement period is less than seven Days, requests shall be submitted within one Day after the Procurement is issued and the Agency will issue its response to each such request at least 24 hours prior to Bid Closing. Failure to timely request clarification or changes shall be deemed acceptance of all of the terms and conditions of the Procurement. Oral explanations or interpretations given before receiving Bids for a Project will not be binding. To be binding, interpretation of the Plans and Specifications by the Agency must be made by written Addendum furnished to all Holders of Bidding Plans according to 00120.30.

00120.16 Material, Equipment, and Method Substitutions – When the Contract specifies certain Materials, Equipment, and/or Methods, the Bidder shall include those Materials, Equipment, and/or Methods in the Bid. Substitution after execution of the Contract is specified in 00180.31B, 00180.31C, and 00180.31D.

00120.17 Use of Agency-Owned Land for Staging or Storage Areas - The Contractor may use Agency-owned property for staging or storage areas, subject to the following limitations:

A. Within Normal Right-of-Way Limits - If approved by the Engineer, the Contractor may use available property within the normal Right-of-Way limits for the purpose of constructing improvements under the Contract as long as such use does not unduly impede other legitimate users of the Right-of-Way or adjacent properties. Where the Agency owns, or has rights to, other adjacent properties in the Project area, "normal Right-of-Way" is limited to a line drawn across that property connecting the normal Right-of-Way limits on either side of the property.

B. Outside Normal Right-of-Way Limits - The Contractor may not use Agency-owned property outside of normal Right-of-Way limits for the Project without the approval of the Engineer.

If a Bidder obtains approval before submitting a Bid, use of the property will be at no cost to the Contractor, or at a cost stated by the Engineer upon granting approval, as confirmed by Addendum.

If approval is not obtained before submitting a Bid, and the Contractor proposes to use Agency-owned property outside the normal Right-of-Way limits, then use of the property may be approved by the Engineer, but the Contractor will be assessed fair market value, as determined by the Engineer, for use of the property.

C. Restrictions on Use - Contractors shall comply with all applicable laws, ordinances, and regulations pertaining to use of Agency-owned property, and shall:

1. Not cause unreasonable impacts on traffic and other facility users.
2. Clean up all hazardous materials deposited by, or resulting from, Contractor operations.
3. Be responsible for all costs associated with use of the property.

00120.18 Contractor - Obtained Land for Staging or Storage Areas – Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities, or storage or staging of materials and equipment.

A. Within five (5) days of Contractor executing an agreement with property owners of land for Contractor's use, provide Agency with a copy of such agreement.

B. In the event of claims or disputes between Contractor and property owner, Contractor shall indemnify and defend the Agency, its officers, agents and employees in conformance with the Public Improvement Contract, Article 7 – Indemnification.

00120.20 Interpretation of Quantities in Bid Schedule – Quantities appearing in the Bid Schedule are approximate and are provided only for comparison of Bids. The Agency does not warrant that the actual individual items, amount of Work, or quantities will correspond to those shown in the Bid Schedule. Payment to the Contractor will be made only for actual quantities of Work performed and accepted or Materials furnished and accepted, as required by the Contract. Quantities of Work to be performed and Materials to be furnished may each be increased, decreased, or omitted as provided in 00120.30 and 00140.30.

00120.25 Subsurface Investigations – If the Agency or its consultant has conducted subsurface or geologic investigations of the proposed Project Site or contiguous to the Project Site, the results of the investigations may be included in written geotechnical data reports. If geotechnical data reports have been prepared, such reports may be included in the Solicitation Documents (see Special Provisions) and shall be considered as part of the Contract Documents to the extent that the Contractor may rely upon the accuracy of the technical data contained in such reports. If the Agency has retained subsurface samples, they will also be available for inspection. Bidders and the Contractor may make arrangements for viewing the samples through the Engineer's office.

The availability of subsurface information from the Agency is solely for the convenience of the Bidder and shall not relieve the Bidder or the Contractor of any risk, duty to make examinations and investigations as required by 00120.15, or other responsibility under the Contract Documents. It is mutually agreed to by all parties that:

A. The subsurface investigations made by the Agency are for the purpose of obtaining data for planning and design of the Project
B. The data for individual test boring logs apply only to that particular boring and is not intended to be conclusive as to the character of any material between or around test borings.
C. If Bidders use this information in preparing a Bid, it is used at their own risk, and Bidders are responsible for all conclusions, deductions, and inferences drawn from this information.
D. Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, consultants, or subcontractors with respect to any Contractor interpretation of or conclusion drawn from any technical data or any such other data, interpretations, opinions, or information

00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids - The Agency reserves the right to issue Addenda making changes or corrections to the Plans, Specifications, or quantities. Only holders of Solicitation Documents obtained from the Agency's office who have been identified by the Agency as Holders of Bidding Plans will be notified of these Addenda by e-mail, or delivery service, sent to the Bidder's address as it appears in the Agency's files.

The Agency may extend Bid Closing if Agency determines prospective Bidders need additional time to review and respond to Addenda. Agency will not, except to the extent required by a countervailing public interest, issue Addenda less than 72 hours before Bid Closing unless the Addendum also extends Bid Closing.

Bidders shall acknowledge Addenda by submitting the "Acknowledgment of Addendum" in the Bid Booklet with their Bids. The Agency will not be responsible for failure of Bidders to receive Addenda sent as described in the preceding paragraph. Bids shall incorporate all Addenda. Bids may be rejected if opened and found by the Agency to not be based on all Addenda issued before Bid Closing.

00120.40 Preparation of Bids:

A. General:

1. **Bids** - The Bidders shall not alter, in any manner, the documents within the Bid Section. Bidders shall complete the certifications and statements included in the Bid Section of the Bid Booklet according to the instructions. Signature of the Bidder's authorized representative thereon constitutes the Bidder's confirmation of and agreement to all certifications and statements contained in the Bid Booklet. Entries on the documents in the Bid Section shall be in black or blue ink or typed. Signatures and initials shall be in black or blue ink.

   The Bidder shall properly complete and bind all the documents in the Bid Section, as specified in 00120.10.

   (1) Paper Bids – Paper Bids will not be accepted.

   (2) Electronic Bids – Bidders shall prepare and submit Bids using the project bid documents on the City of Tigard's website (see 00110.05(E)). Bidders shall complete the certifications and statements included in the Bid Section of the Bid Booklet according to the instructions. The authorized digital signature of the Bidder constitutes the Bidder's confirmation of an agreement to all certifications and statements contained in the Bid Booklet.

B. Bid Schedule Entries:

1. **Bid Schedule Entries** - Using figures, Bidders shall fill in all blank spaces in the Bid Schedule. For each item in the Bid Schedule, Bidders shall enter the unit price and the product of the unit price multiplied by the quantity given. The unit price shall be greater than zero, shall contain no more than two decimal places to the right of the decimal point, and shall be expressed in U.S. dollars and cents (for example, $150.25 or $0.37). Unit prices submitted which contain more than two decimal places, will be truncated by the Agency at the second decimal place to determine the product of the unit price and quantity. No rounding will be considered or paid. Bidders Bid shall also enter the total amount of the Bid obtained by adding amounts for all items in the Bid Schedule. Corrections or changes of item entries shall be in ink, with incorrect entry lined out and correct entry entered and initialed in ink by the person signing the Bid.

C. Bidder's Address and Signature Pages - Bidders shall include in the Bid the address to which all communications concerning the Bid and Contract should be sent. The Bid must be signed by a duly authorized representative of the Bidder.

D. Bid Guaranty - All Bids shall be accompanied by a Bid guaranty in the amount of 10% of the total amount of the Bid.

1. **Bid Guaranty** - The Bid guaranty shall be either a Surety bond, irrevocable letter of credit issued by an insured institution as defined in ORS 706.008 or security in the form of a cashier's check or certified check made payable to the Agency. (see ORS 279C.365(4))

   If a Surety bond is submitted, Bidders shall use the Agency's standard Bid Bond form included with the Bid Booklet or an alternative Bid Bond form acceptable to the Agency. Bidders shall submit the

bond with original signatures and the Surety's seal affixed. The Bid guaranty shall be submitted by mail, delivery service, or hand delivered to the offices and addresses, and at the times given in the Bid Booklet.

- Acceptable Surety companies are limited to those authorized to do business in the State of Oregon.
- Forfeiture of Bid guaranties is covered by 00130.60, and return of guaranties is covered by 00130.70.

E. Disclosure of First-Tier Subcontractors – If the Bidder's Bid exceeds $100,000 or without regard to the amount of a Bidder's Bid, if the Agency's cost estimate for a public improvement project as indicated in the Advertisement for Bids exceeds $100,000, the Bidder shall, within 2 working hours of the time Bids are due to be submitted, submit to the Agency, on a form provided by the Agency, a disclosure identifying any first-tier Subcontractors that will furnish labor or labor and Materials, and whose contract value is equal to or greater than:

1. 5% of the total Project Bid, but at least $15,000; or
2. $350,000, regardless of the percentage of the total Project Bid.

For each Subcontractor listed, Bidders shall state:

1. The name of the Subcontractor;
2. The dollar amount of the subcontract; and
3. The category of Work that the Subcontractor would be performing.

If no subcontracts subject to the above disclosure requirements are anticipated, a Bidder shall so indicate by entering "NONE" or by filling in the appropriate check box. For each Subcontractor listed, Bidders shall provide all requested information. An incomplete form will be cause for rejection of the Bid.

The Subcontractor Disclosure Form may be submitted for a Bid either:

- By filling out the Subcontractor Disclosure Form included in the Bid Booklet and submitting it together with the Bid at the time and place designated for receipt of Bids;
- By removing it from the Bid Booklet, filling it out and submitting it separately to the Agency at the address given in the Bid Booklet.

Subcontractor Disclosure Forms submitted by any method will be considered late if not received by the Agency within two 2 working hours of the time designated for receiving Bids.

In the event that multiple Subcontractor Disclosure Forms are submitted, the last version received prior to the deadline will be considered to be the intended version.

THE AGENCY MUST REJECT A BID IF THE BIDDER FAILS TO SUBMIT THE DISCLOSURE FORM WITH THIS INFORMAITON BY THE STATED DEADLINE (see OAR 137-049-0360).

00120.45 Submittal of Bids:

A. Paper Bids – Paper Bids will not be accepted.

B. Electronic Bids - Electronic bidding is available. Information on how to submit an electronic bid can be found on the City of Tigard website (see 00110.05(e)).

C. All Bid material submitted by Bidder shall become the property of the Agency and is public record unless otherwise specified. A Bid that contains any information that is considered trade secret under ORS 192.501(2) should be segregated and clearly identified as such. This information will be kept confidential and shall not be disclosed except in accordance with the Oregon Public Records Law, ORS 192. The above restrictions may not include cost or price information, which must be open to public inspection.

00120.60 Modification or Withdrawal of Bids:

A. Modification - Bids once submitted may be modified in writing prior to the time and date set for Bid Closing and submitted to the place designated for receipt of Bids. Any modifications shall be prepared on the company letterhead, signed by an authorized representative, and state that the new document supersedes or modifies the prior Bid. The Bid modification shall be delivered in a sealed envelope and shall be marked as follows:

BID MODIFICATION
Bid Title and Closing Date and Time

B. Withdrawal - Bids may be withdrawn by written notification on company letterhead signed by an authorized representative and received prior to the time and date set for Bid Closing and submitted to the place designated for receipt of Bids. Bids also may be withdrawn in person prior to the scheduled Bid Closing upon presentation of appropriate identification.

Requests to withdraw Bids shall be marked as follows:

BID WITHDRAWAL
Bid Title and Closing Date and Time

No Bid can be withdrawn after having been opened.

00120.65 Opening and Comparing Bids – Bids will be opened and the total price for each Bid will be read publicly at the time and place indicated in the Advertisement for Bids. Bidders and other interested parties are invited to be present.

Bids for each Project will be compared on the basis of the total amount of each Bid. The total amount of the Bid will be the total sum computed from quantities listed in the Bid Schedule and unit prices entered by the Bidder.

In case of conflict between the unit price and the corresponding extended amount, the unit price shall govern, and the Agency may make arithmetic corrections on extension amounts.

Error(s) discovered after Bid opening cannot be corrected by the Bidder and the contractor will be required to perform work at the unit price if its Bid is accepted.

00120.67 Bid Mistakes:

A. General - Under extraordinary circumstances, a Bid may be withdrawn after the deadline for submittal because of an inadvertent nonjudgmental mistake. If the mistake is attributable to an error in judgment, the Bid may not be withdrawn or corrected. Correction or withdrawal by reason of nonjudgmental mistake is permissible but only to the extent it is not contrary to the interest of the Agency or the fair treatment of other Bidders.

B. Mistakes Discovered after Bid Closing but before Award - This section applies to situations where mistakes in Bids are discovered after the submission deadline but before Award.

1. **Minor Informalities** - Minor informalities are matters of form rather than substance that are evident from the Bid Documents, or insignificant mistakes that can be waived or corrected promptly without prejudice to other Bidders or the Agency; that is, the informality does not affect price, quantity, quality, delivery, or contractual conditions except in the case of informalities involving unit prices. Examples include, but are not limited to, the failure of a Bidder to:

    a) Return the number of signed Bids or number of other documents required by the Bid Documents;
    b) Sign the Bid Form in the designated block so long the Bid Documents evidence an intent to be bound; or
    c) Acknowledge receipt of an Addendum to the Bid Documents, but only if:
    d) It is clear from the Bid that the Bidder received the Addendum and intended to be bound by its terms; or
    e) The Addendum involved did not affect price, quantity, quality, or delivery.

C. Mistakes Where Intended Correct Bid is Evident - If the mistake and the intended correct Bid are clearly on the face of the Bid Form, or can be substantiated from accompanying documents, the Agency may accept the Bid. Examples of mistakes that may be clearly evident on the face of the Bid Form are typographical errors, errors in extending unit prices, transposition errors, and arithmetical errors. Mistakes that are clearly evident on the face of the Bid Form also may include instances in which the intended correct Bid is made clearly evident by simple arithmetic calculations. For example, a missing unit price may be established by dividing the total Bid or proposal item by the quantity of units for that item, and a missing or incorrect total Bid price for an item may be established by multiplying the unit price by the quantity when those figures are available on the Bid. For discrepancies between unit prices and extended prices, unit prices shall normally prevail.

D. Mistakes Where Intended Correct Bid is Not Evident - The Agency may not accept a Bid in which a mistake is clearly evident on the face of the Bid Form but the intended correct Bid is not clearly evident or cannot be substantiated from accompanying documents.

00120.68 Low Tie Bids:

A. Definition - Low tie Bids are low responsive Bids from responsible Bidders that are identical in price, fitness, availability and quality and which meet all the requirements and criteria set forth in the Bid Documents.

B. Award: If low tie Bids are received, a preference shall be given to goods and services that have been manufactured or produced in Oregon.

1. If the bids remain tied after application, preference shall be given to the Bidder whose principal offices or headquarters are located in Oregon.
2. If the Bids remain tied after application and Subsections a, the Award shall be made by drawing lots among any tied Oregon Bidders. Such Bidders shall be given notice and an opportunity to be present when the lots are drawn.
3. If there are no Oregon Bidders after application and subsections a and b, Award of the contract shall be made by drawing lots.

00120.70 Rejection of Nonresponsive Bids – A Bid will be considered irregular and will be rejected if the irregularity is deemed by the Agency to render the Bid non-responsive. Examples of irregularities include without limitation:

A. The Bid Section documents provided are not properly used or contain unauthorized alterations.
B. The Bid is incomplete or incorrectly completed.
C. The Bid contains improper additions, deletions, alternate Bids, or conditions.

D. The Bid is submitted on documents not obtained directly from the Agency, or is submitted by a Bidder who has not been identified by the Agency as a Holder of Bidding Plans, as required by 00120.05.
E. The Bid or Bid modifications are not signed by a person authorized to submit Bids or modify Bids, as required by 00120.40 and
F. A member of a joint venture and the joint venture submit Bids for the same Project. Both Bids may be rejected.
G. The Bid has entries not typed or in ink, or has signatures or initials not in ink.
H. Each change or correction is not individually initialed.
I. White-out tape or white-out liquid is used to correct item entries.
J. The price per unit cannot be determined.
K. The Bid guaranty is insufficient or improper.
L. The original Bid Bond form is not used or is altered.
M. The Oregon Construction Contractors Board registration number and expiration date are not shown on the Bid if required in the Solicitation Document. This requirement applies to Agency and State-funded Projects, with the exception of Aggregate production and landscape Projects. (not required on Federal-Aid Projects)
N. A disclosure of qualified first-tier Subcontractors, if required under 00120.40(f), is not received within 2 working hours of the time Bids are due to be submitted, or the disclosure form is not complete.
O. The Bidder has not complied with the DBE requirements of the solicitation.
P. The Bid does not acknowledge all issued Addenda.
Q. The Bid contains entries that are not greater than zero.
R. The Bid entries are not expressed in U.S. dollars and cents.
S. The Agency determines that any Pay Item is significantly unbalanced to the potential detriment of the Agency

In addition, the Agency may reject all Bids and suspend the project in the event all Bids exceed the funds the Agency has appropriated for the project or for good cause upon its finding that it is in the public interest to do so. The Agency may also waive minor informalities or irregularities.

00120.80 Reciprocal Preference for Oregon Resident Bidders – This Subsection applies only to Contracts for Projects financed without federal funds.

Bidders shall complete the certificate of residency provided by the Agency in the Bid Booklet. Failure to properly complete the form will be cause to reject the Bid.

As used in the certificate of residency and this Subsection, "Resident Bidder" means a Bidder who has:

A. Paid unemployment taxes or income taxes in the State of Oregon during any of the 12 calendar months immediately preceding submission of the Bid;
B. A business address in the State of Oregon; and
C. Certified in the Bid that the Bidder qualifies as a Resident Bidder

"Nonresident Bidder" means a Bidder who is not a Resident Bidder as defined above.

In determining the lowest Bid, the Agency will, for the purpose of awarding the Contract, add a percentage increase to the Bid of a Nonresident Bidder equal to the percentage, if any, of the preference given to that Bidder in the state in which the Bidder resides (ORS 279A.120). The percentage preference applied in each state will be published on or before January 1 of each year by the Oregon Department of Administrative Services. The Agency may rely on these percentages without incurring liability to any Bidder (ORS 279A.120).

This increase will only be applied to determine the lowest Bid, and will not cause an increase in payment to the Contractor after Award of the Contract.

00120.90 Disqualification of Bidders – The Bid(s) of a disqualified Bidder will be rejected. Any of the following reasons is sufficient to disqualify a Bidder:

A. More than one Bid is submitted for the same Work by an Entity under the same or different name(s).
B. Evidence of collusion among Bidders. Participants in collusion will be found not responsible, and may be subject to criminal prosecution.
C. Any of the grounds for disqualification cited in ORS 279C.440.

A Bidder will be disqualified if the Bidder has:

A. Not been prequalified if required by 00120.02;
B. Been declared ineligible by the Commissioner of the Bureau of Labor and Industries under ORS 279C.860;
C. Not been registered (licensed) by the Oregon Construction Contractors Board (CCB) or been licensed by the State Landscape Contractors Board before submitting a Bid (ORS 279C.365(1)(k), ORS 701.021, ORS 701.026, and ORS 671.530). The Bidder's registration number and expiration date shall be shown in the Bid form, if requested. Failure to furnish the registration number, if requested, will render the Bid non-responsive and subject to rejection. (not required on Federal-Aid projects); or
D. Been determined by the CCB under ORS 701.227 not to be qualified to hold or participate in a public contract for a public improvement.

00120.91 Rejection of Bid on Grounds of Nonresponsibility of Bidder - The Bid of a Bidder who is found to be nonresponsible according to the criteria listed in 00130.10 or ORS 279C.375(3) will be rejected.

Section 00130 - Award and Execution of Contract

00130.00 Consideration of Bids - After opening and reading Bids, the Agency will check them for correct extensions of unit prices and totals. (see 00120.65) The total of extensions, corrected where necessary, will be used by the Agency for Award purposes. Discrepancies between words and figures will be resolved in favor of words. In selecting the lowest responsive Bid, the Agency reserves the right to take into consideration any or all alternatives called for in the Bid Form.

The Agency reserves the right to waive minor informalities and irregularities, and to reject any or all Bids for irregularities under 00120.70 or for good cause after finding that it is in the public interest to do so (ORS 279C.395). An example of good cause for rejection in the public interest is the Agency's determination that any of the unit Bid prices are materially unbalanced to the Agency's potential detriment. A materially unbalanced Bid is defined as, "a Bid which generates a reasonable doubt that award to the Bidder submitting a mathematically unbalanced Bid will result in the lowest cost to the Agency." The Agency may correct obvious errors, when the correct information can be determined from the face of the document, if it finds that the best interest of the Agency and the public will be served thereby.

00130.10 Award of Contract - After the Bids are opened and a determination is made that a Contract is to be awarded, the Contract will be awarded to the lowest responsible Bidder. For the purposes of this Section, "lowest responsible Bidder" means the responsible Bidder that submitted the lowest responsive Bid who is not on the list created by the Construction Contractors Board according to ORS 701, and who has:

A. Substantially complied with all prescribed public bidding procedures and requirements.
B. Available the appropriate financial, Materials, Equipment, facility and personnel resources and expertise, or ability to obtain the resources and expertise, necessary to indicate the capability of the prospective Bidder to meet all contractual responsibilities.
C. A satisfactory record of performance. In evaluating a Bidder's record of performance, the Agency may consider, among other things, whether the Bidder completed previous contracts of a similar nature with a satisfactory record of performance. For purposes of evaluating a Bidder's performance on previous contracts of a similar nature, a satisfactory record of performance means that to the extent that the costs associated with and time available to perform a previous contract remained within the Bidder's control, the Bidder stayed within the time and budget allotted for the procurement and otherwise performed the contract in a satisfactory manner.
D. A satisfactory record of integrity. In evaluating a Bidder's record of integrity, the Agency may consider, among other things, whether the Bidder has previous criminal convictions for offenses related to obtaining or attempting to obtain a contract or subcontract or in connection with the Bidder's performance of a contract or subcontract.
E. Qualified legally to contract with the Agency.
F. Supplied all necessary information in connection with the Agency's inquiry concerning responsibility. If a prospective Bidder fails to promptly supply information requested by the Agency concerning responsibility, the Agency shall base the determination of responsibility upon any available information, or may find the prospective Bidder not to be responsible.
G. Not been disqualified by the public contracting agency under ORS 279C.440.

If the Bidder is found not to have a satisfactory record of performance or integrity, the Agency will document the record and the reasons for the unsatisfactory finding.

The Agency will mail the Notice of Intent to Award to the Bidders, and may provide Notice of Intent to Award on the Agency's web site.

The Award will not be final until the later of the following:

A. Seven working days after the Notice of Intent to Award has been posted as specified in the advertised solicitation or Addendum thereto; or
B. The Agency has provided a written response to each timely protest, denying the protest and affirming the Award.

If the Agency accepts a Bid and awards a Contract, the Agency will send the successful Bidder written notice of acceptance and Award.

Notice of Award and Contract booklets ready for execution will be sent within 60 Calendar Days of the opening of Bids or within the number of Calendar Days specified in the Special Provisions or a written mutual agreement between successful Bidder and Agency.

The Contractor will not automatically be entitled to extra compensation because the commencement of Work is delayed by failure of the Agency to send the Contract for execution. However, if more Calendar Days elapse between the date the Bid is opened and the date the Agency sends the Contract to be executed, as specified in 00130.10, the Agency will consider granting an adjustment of time for completion of the Work to offset any actual delay to Contract completion resulting directly from delay in commencement.

00130.15 Right to Protest Award - Adversely affected or aggrieved Bidders, limited to the three apparent lowest Bidders and any other Bidder directly in line for Contract Award, may submit to the Agency a written protest of the Agency's intent to Award within seven Calendar days following the date of the Notice of Intent to Award. The protest shall specify the grounds upon which it is based.

An aggrieved Bidder may protest an award only if the Bidder alleges, in its written protest, that it should have received the award because:

A. All lower Bids are non-responsive;
B. The Agency failed to conduct the Bid process as described in the Bid Document;
C. The Agency has abused its discretion in rejecting the protestor's Bid as non-responsive or non-responsible; or
D. The Agency's evaluation of Bids or subsequent determination of award is otherwise in violation of ORS Chapters 279A and 279C or the Agency's public contracting rules.

The written protest must describe the facts that support the protest. The Agency may not consider late protests or protests that do not describe facts that would support a finding that the Bidder is aggrieved for one of the reasons in clauses A through D above.

00130.20 Cancellation of Award - Without liability to the Agency, the Agency may for good cause cancel Award at any time before the Contract is executed by all parties to the Contract, as provided by ORS 279C.395 for rejection of Bids, upon finding it is in the public interest to do so.

00130.30 Contract Booklet - The Contract booklet may include but is not limited to:

A. Public Improvement Contract
B. Performance Bond
C. Payment Bond
D. Prevailing Wage Rates
E. Special Provisions

00130.40 Contract Submittals - Before the Agency will execute the Contract, the successful Bidder shall furnish the following:

A. Performance and Payment Bonds - When Awarded the Contract, the successful Bidder shall furnish a Performance Bond and a Payment Bond of a Surety authorized to do business in the State of Oregon.

The successful Bidder shall submit the standard bond forms, which are bound in the Contract Booklet or alternative bond forms acceptable to the Agency. Faxed or photocopied bond forms will not be accepted. The amount of each bond shall be equal to the Contract Amount. The Performance Bond and the Payment Bond must be signed by the Surety's authorized Attorney-in-Fact, and the Surety's seal must be affixed to each bond. A power of attorney for the Attorney-in-Fact shall be attached to the bonds in the Contract booklet, which must include bond numbers, and the Surety's original seal must be affixed to the power of attorney. Bonds shall not be canceled without the Agency's consent, nor will the Agency normally release them, prior to Contract completion. The amount of the Performance and Payment Bonds shall be increased to equal the new Contract Amount whenever the Contract Amount is increased for any reason.

B. Certificates of Insurance - The successful Bidder shall furnish the Agency certificates of insurance applicable to the Project, according to the Public Improvement Contract.

For specified Contracts, certified copies, and in some instances the original, of insurance policies may be required by the Special Provisions.

C. Registration Requirements:

1. ORS 701.021, ORS 701.026, and ORS 671.530 require that Bidders be registered with the Oregon Construction Contractors Board or licensed by the State Landscape Contractors Board prior to submission of a Bid on a Project not involving federal funds. Registration with the Construction Contractors Board or licensing by the State Landscape Contractors Board is not a prerequisite to bidding on Federal-Aid Projects; however, the Agency will not execute a Contract until the Contractor is so registered or licensed.

2. Bidders must be registered with the Corporation Division, Oregon Secretary of State, if bidding as a corporation, limited liability company, joint venture, or limited liability partnership, or if operating under an assumed business name and the legal name of each person carrying on the business is not included in the business name.

3. A Contractor registered under ORS 701 may bid on a landscaping Project or perform a construction project that includes landscape contracting as a portion of the project if the landscape contracting is subcontracted to a licensed landscaping business as defined in ORS 671.520.

4. A landscaping business may bid on a Project or perform a Contract that includes the phase of landscape contracting for which it is not licensed if it employs a landscape contractor, or subcontracts with another licensed landscaping business, licensed for that phase.

D. Tax Identification Number - The successful Bidder shall furnish the Agency the Bidder's Federal Tax Identification Number.

00130.50 Execution of Contract and Bonds:

A. By the Bidder - The successful Bidder shall deliver the required number of Contract booklets with the properly executed Contract, Performance Bond, Payment Bond, certification of workers' compensation coverage, and the required certificates of insurance, to the Agency within 10 Calendar Days after the date

on which the Contract booklets are sent or otherwise conveyed to the Bidder under 00130.10. The Bidder shall return the originals of all documents received from the Agency and named in this Subsection, with original signatures. Certificates of insurance shall also be originals. No copies of these documents will be accepted by the Agency.

Proper execution requires that:

1. If the Contractor is a partnership, limited liability partnership, joint venture, or limited liability company, an authorized representative of each Entity comprising it shall sign the Contract, Performance Bond, and Payment Bond, and an authorization to sign shall be attached.
2. If the Contractor is a corporation, the President and the Secretary of that corporation shall sign the Contract, Performance Bond, and Payment Bond. However, if other corporate officers are authorized to execute contracts and bonds, the successful Bidder shall furnish with those documents a certified, true and correct copy of the corporate bylaws or minutes stating that authority. If only one officer is signing, then the bylaws or minutes must include the authority to sign without the signature of others. The successful Bidder shall also include the title(s) or corporate office(s) held by the signer(s).

B. By the Agency - Within 10 Working Days after the Agency has received and verified the properly executed documents specified in 00130.50A, and received legal sufficiency approval from the Agency's attorney (if required), the Agency will execute the Contract. The Agency will then send a fully-executed original Contract booklet to the successful Bidder, who then officially becomes the Contractor.

00130.60 Failure to Execute Contract and Bonds - Failure of the successful Bidder to execute the Contract and provide the required certificates, certifications, and bonds may be cause for cancellation of the Award, and may be cause for forfeiture of the Bid guaranty under ORS 279C.385.

Award may then be made to the next lowest responsible Bidder, the Project may be re-advertised, or the Work may be performed otherwise as the Agency decides.

The forfeited Bid guaranty will become the Agency's property, not as a penalty but as liquidation of damages resulting from the Bidder's failure to execute the Contract and provide the certificates, certifications, and bonds as required by these Specifications.

00130.70 Release of Bid Guaranties - Bid guaranties will be released and checks returned 7 Calendar Days after Bids are opened, except for those of the three apparent lowest Bidders on each Project. The guaranties of the three apparent lowest Bidders will be released and checks returned to unsuccessful Bidders within 7 days of the Agency's execution of the Contract.

00130.80 Project Site Restriction - Until the Agency sends the Contractor written Notice to Proceed with the Work, and the Contractor has filed the public works bonds required in 00170.20, the Contractor shall not move Materials, Equipment, or workers onto that Project Site.

00130.85 Tigard Business License - Contractor shall obtain a Tigard Business License or Metro License for builders and landscape contractors prior to delivering services under this Contract.

00130.90 Notice to Proceed - Notice to Proceed will be issued within 5 Calendar Days after the Contract is executed by the Agency.

Should the Agency fail to issue the Notice to Proceed within 5 Calendar Days of Contract execution, the Contractor may apply for an adjustment of Contract Time according to 00180.80C.

Section 00140 - Scope of Work

00140.00 Purpose of Contract - The purpose of the Contract is to set forth the rights and obligations of the parties and the terms and conditions governing completion of the Work. The Contractor's obligations shall include without limitation the following:

A. The Contractor shall furnish all Materials, Equipment, labor, transportation, and Incidentals required to complete the Work according to Plans, Specifications, and terms of the Contract.
B. The Contractor shall perform the Work according to the lines, grades, Typical Sections, dimensions, and other details shown on the Plans, as modified by written order.
C. The Contractor shall contact the Engineer for any necessary clarification or interpretation of the Contract.

00140.10 Typical Sections - The Typical Sections are intended to apply in general. At other locations where the Typical Section is not appropriate, the Contractor shall perform construction to the identified alignment as directed by the Engineer.

00140.20 Thickness - The thickness of Courses of Materials shown on the Plans, given in the Specifications, or established by the Engineer is considered to be the compacted thickness. Minor variations are acceptable when within tolerances specified in the Specifications or Plans, or when approved by the Engineer.

00140.30 Agency-Required Changes in the Work - Changes to the Plans, quantities, or details of construction are inherent in the nature of construction and may be necessary or desirable during the course of Project construction.

Without impairing the Contract, the Agency reserves the right to require changes it deems necessary or desirable within the scope, which in the Specifications means general scope, of the Project. These changes may modify, without limitation:

A. Specifications and design
B. Grade and alignment
C. Cross Sections and thicknesses of Courses of Materials
D. Method or manner of performance of Work
E. Project Limits

or may result in

A. Increases and decreases in quantities
B. Additional Work
C. Elimination of any Contract item of Work
D. Acceleration or delay in performance of Work

Upon receipt of a Change Order, the Contractor shall perform the Work as modified by the Change Order. If the Change Order increases the Contract Amount, the Contractor shall notify its Surety of the increase and direct the Surety to increase the amount of the performance and payment bonds to equal the new Contract Amount. If requested, the Contractor shall provide the Agency with a copy of the modified bond documents within 15 calendar days of receipt of the Change Order. The Contractor's performance of Work according to Change Orders shall neither invalidate the Contract nor release the Surety. Payment for changes in the Work will be made according to 00195.20. Contract Time adjustments, if any, will be made according to 00180.80. A Change Order signed by the Contractor is the agreement that the adjustment in the Contract Amount or Contract Time indicated is full compensation for all change order items including the impact of the change order on the balance of the Work to be accomplished.

00140.40 Differing Site Conditions - The following constitute differing Project Site conditions provided such conditions are discovered at the Project Site after commencement of the Work:

A. Type 1 - Subsurface or latent physical conditions that could not have been discovered by careful examination of the Project site, utility locations and available records as described in 00120.15 and that differ materially from those indicated in the Contract Documents; or
B. Type 2 - Unknown physical conditions of unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent in the Work provided for in the Contract.

The party discovering such a condition shall promptly notify the other party, in writing, of the specific differing conditions before they are disturbed and before the affected Work is performed. The Contractor shall not continue Work in the affected area until the Engineer has inspected such condition according to 00195.30 to determine whether an adjustment to Contract Amount or Contract Time is required.

Payment adjustments due to differing Project Site conditions, if any, will be made according to 00195.30. Contract Time adjustments, if any, will be made according to 00180.80.

00140.50 Environmental Pollution Changes - ORS 279C.525 will apply to any increases in the scope of the Work required as a result of environmental or natural resources laws enacted or amended after the submission of Bids for the Contract. The Contractor shall comply with the applicable notice and other requirements of ORS 279C.525. The applicable rights and remedies of that statute will also apply.

In addition to ORS 279C.525, the Agency has compiled a list at 00170.01 of those federal, State, and local agencies, of which the Agency has knowledge, that have enacted ordinances, rules, or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that may affect the performance of Agency contracts.

00140.60 Extra Work - If directed by the Engineer's written order, the Contractor shall perform work not included in the Contract. The Contractor shall perform this work according to:

A. Standard Specifications
B. Standard Drawings
C. Other Plans and Specifications issued by the Engineer

Payment for Extra Work will be made according to Section 00196. Contract Time adjustments, if any, will be made according to 00180.80.

00140.65 Disputed Work - The Contractor may dispute any part of a Change Order, written order, or an oral order from the Engineer by the procedures specified in Section 00199.

00140.70 Cost Reduction Proposals - The Contractor may submit written proposals to the Engineer that modify Plans, Specifications, or other Contract Documents for the sole purpose of reducing the total cost of construction. Unless otherwise agreed to in writing by the Agency, a proposal that is solely or primarily a proposal to reduce estimated quantities or delete Work, as determined by the Engineer, is not eligible for consideration as a cost reduction proposal and will instead be addressed under 00140.30, whether proposed or suggested by the Agency or the Contractor.

A. Proposal Requirements - The Agency will not adopt a cost reduction proposal that impairs essential functions or characteristics of the Project including but not limited to service life, economy of operation, ease of maintenance, designed appearance, or design and safety standards.

To conserve time and funds, the Contractor may first submit a written request for a feasibility review by the Engineer. The request should contain a description of the proposal together with a rough estimate of

anticipated dollar and time savings. The Engineer will, within a reasonable time, advise the Contractor in writing whether or not the proposal would be considered by the Agency, should the Contractor elect to submit a detailed cost reduction proposal.

A detailed cost reduction proposal shall include without limitation the following information:

1. A description of existing Contract requirements for performing the Work and the proposed change;
2. The Contract items of Work affected by the proposed change, including any quantity variation caused by the proposed change;
3. Pay Items affected by the proposed change including any quantity variations;
4. A detailed cost estimate for performing the Work under the existing Contract and under the proposed change. Cost estimates shall be made according to Section 00197. Costs of re-design, which are incurred after the Agency has accepted the proposal, will be included in the cost of proposed work; and
5. A date by which the Engineer must accept the proposal in order to accept the proposed change without impacting the Contract Time or cost reduction amount.

B. Continuing to Perform Work - The Contractor shall continue to perform the Work according to Contract requirements until the Engineer issues a Change Order incorporating the cost reduction proposal. If the Engineer fails to issue a Change Order by the date specified in the proposal, the proposal shall be deemed rejected.

C. Consideration of Proposal - The Engineer is not obligated to consider any cost reduction proposal. The Agency will not be liable to the Contractor for failure to accept or act upon any cost reduction proposal submitted.

The Engineer will determine in its sole discretion whether to accept a cost reduction proposal as well as the estimated net savings in construction costs from the adoption of all or any part of the proposal. In determining the estimated net savings, the Engineer may disregard the Schedule of Items. The Engineer will establish prices that represent a fair measure of the value of Work to be performed or to be deleted as a result of the cost reduction proposal.

D. Sharing Investigation Costs - As a condition for considering a Contractor's cost reduction proposal, the Agency reserves the right to require the Contractor to share in the Agency's costs of investigating the proposal. If the Agency exercises this right, the Contractor shall provide written acceptance of the condition to the Engineer. Such acceptance will authorize the Agency to deduct its share of investigation costs from payments due or that may become due to the Contractor under the Contract.

E. Acceptance of Proposal Requirements - If the Contractor's cost reduction proposal is accepted in whole or in part, acceptance will be made by a Change Order that will include without limitation the following:

1. Statement that the Change Order is made according to 00140.70;
2. Revised Contract Documents that reflect all modifications necessary to implement the approved cost reduction measures;
3. Any conditions upon which the Agency's approval is subject;
4. Estimated net savings in construction costs attributable to the approved cost reduction measures; and
5. A payment provision according to which the Contractor will be paid 50% of the estimated net savings amount as full and adequate consideration for performance of the Work of the Change Order.

The Contractor's cost of preparing the cost reduction proposal and the Agency's costs of investigating the proposal, including any portion paid by the Contractor, will be excluded from determination of the

estimated net savings in construction costs. Costs of re-design, which are incurred after the Agency has accepted the proposal, will be included in the cost of the Work attributable to cost reduction measures.

If the Agency accepts the cost reduction proposal, the Change Order that authorizes the cost reduction measures will also address any Contract Time adjustment.

F. Right to General Use - Once submitted, the cost reduction proposal becomes the property of the Agency. The Agency reserves the right to adopt the cost reduction proposal for general use without additional compensation to the Contractor when it determines that a proposal is suitable for application to other contracts.

00140.80 Use of Publicly Owned Equipment - The Contractor is prohibited from using publicly-owned Equipment except in the case of emergency. In an emergency, the Contractor may rent publicly-owned Equipment provided that:

A. The Engineer provides written approval that states that such rental is in the public interest; and
B. Rental does not increase the Project cost.

00140.90 Final Trimming and Cleanup - Before Final Inspection as described in 00150.90, the Contractor shall neatly trim and finish the Project and remove all remaining unincorporated Materials and debris. Final trimming and cleanup shall include without limitation the following:

A. The Contractor shall retrim and reshape earthwork, and shall repair deteriorated portions of the Project Site.
B. Where the Work has impacted existing facilities or devices, the Contractor shall restore or replace those facilities to their pre-existing condition.
C. The Contractor shall clean all drainage facilities and sanitary sewers of excess Materials or debris resulting from the Work.
D. The Contractor shall clean up and leave in a neat, orderly condition, Rights-of-Way, Materials sites, and other property occupied in connection with performance of the Work.
E. The Contractor shall remove temporary buildings, construction plants, forms, falsework and scaffolding, surplus and discarded Materials, and rubbish.
F. The Contractor shall dispose of Materials and debris including without limitation forms, falsework, scaffolding, and rubbish resulting from clearing, grubbing, trimming, clean-up, removal, and other Work. These Materials and debris become the property of the Contractor. The Contractor shall dispose of these Materials and debris immediately.
G. The Contractor shall restore and replant or resurface adjoining properties to match existing grades and existing surfaces.
H. The Contractor shall install erosion and sediment control needed to stabilize the Project site.

Unless the Contract specifically provides for payment for this item, the Agency will make no separate or additional payment for final trimming and cleanup.

00140.95 "AS-BUILT" Drawings - The Contractor shall maintain a current and accurate record of Work completed during the course of this Contract and make available to the Engineer updated copies of the project "As-Builts" for Engineer's review at any time. These "As-Builts" drawings shall be kept by accurately marking a designated set of the Contract plans with the specified information as Work proceeds. Accurate, complete and current "As-Built" drawings are a specified requirement for monthly progress payments of the Work completed. "As-Builts" shall be reviewed for completeness before recommendation of payment is granted. Incomplete or insufficient "As-Builts" will be returned to the Contractor and recommendation for progress payment denied. At project completion and as a condition of final payment, the Contractor shall deliver an acceptable complete and legible set of "As-Built" drawings to the Engineer.

The "As-Built" drawings shall show the information listed below. Where the term "locate" or "location" is used, it shall mean record of position with respect to both the construction vertical datum and either construction horizontal datum or a nearby permanent improvement.

A. As-built location of underground and surface services and utilities as installed
B. As-built location of existing underground and surface utilities and services that are to remain and that are encountered during the course of the Work
C. As-built changes in dimension, location, grade or detail to that shown on plans
D. As-built changes made by change order
E. As-built details not in original plans
F. As-built fully completed shop drawings reflecting all revisions

Upon completion of the construction, the Contractor shall review and certify the construction set of "As-Built" drawings for completeness and accuracy of representation of any changes. Final payment will not be processed until "As-Built" drawings have been submitted and approved.

Section 00150 - Control of Work

00150.00 Authority of the Engineer (Project Manager) - The Engineer has authority over the Work and its suspension. (see Section 00180) The Contractor shall perform all Work to the complete satisfaction of the Engineer.

The Engineer's determination shall be final on all matters, including but not limited to the following:

A. Quality and acceptability of Materials and workmanship
B. Measurement of unit price Work
C. Timely and proper prosecution of the Work
D. Interpretation of Contract Documents
E. Payments due under the Contract

and, except as provided in Section 00199 for claims for additional Contract Time or Contract Price, may be challenged only through litigation.

The Contractor shall direct all requests for clarification or interpretation of the Contract, in writing, to the Engineer. The Engineer will respond within a reasonable time. Contract clarification or interpretation obtained from persons other than the Engineer.

Work performed under the Contract will not be considered complete until it has passed Final Inspection by the Engineer and has been accepted by the Agency.

Interim approvals issued by the Engineer, including but not limited to Final Acceptance, will not discharge the Contractor from responsibility for errors in prosecution of the Work, for improper fabrication, for failure to comply with Contract requirements, or for other deficiencies, the nature of which are within the Contractor's control.

The Engineer shall have the authority to appoint Inspectors and other personnel as required to assist in the administration of the Contract.

The authority stated in this subsection is subject to the individuals delegated authority by the Agency. If the individual does not have the state authority, the subsection reference shall include Agency personnel that have such authority.

00150.02 Inspector's Authority and Duties - To the extent delegated under 00150.01, Inspectors are authorized to represent the Engineer and Project Manager to perform the following:

A. Inspect Work performed and Materials furnished, including without limitation, the preparation, fabrication, or manufacture of Materials to be used;
B. Orally reject defective Materials and to confirm such rejection in writing;
C. By oral order, temporarily suspend the Work for improper prosecution pending the Engineer's decision; and
D. Exercise additional delegated authority.

Inspectors are not authorized to:

A. Accept Work or Materials.
B. Alter or waive provisions of the Contract.
C. Give instructions or advice inconsistent with the Contract Documents.

00150.10 Coordination of Contract Documents - The Contract Documents, including but not limited to Contract Change Orders, the Special Provisions, the Plans, and the Standard Specifications are intended to collectively describe all of the items of Work necessary to complete the Project. The Contract Documents are complementary; what is required by one is as binding as if required by all.

A. Order of Precedence - The Engineer will resolve any discrepancies between these documents in the following order of precedence:

1. Permits from outside agencies;
2. Contract (Agreement)
3. Addenda;
4. Bid Schedule;
5. Project Drawings;
6. Standard Drawings;
7. Special Provisions;
8. General Conditions;
9. Standard Specifications;
10. Geotechnical Data Reports;
11. Reviewed and accepted, stamped Working (Shop) Drawings (including Deferred Submittals);
12. Approved Unstamped Working (Shop) Drawings.

Change Orders, Work Change Directives, Field Orders, and Engineer's written interpretation and clarifications, in precedence listed, will take precedence over all other Contract Document components referenced herein.

Notes on a drawing shall take precedence over drawing details. Dimensions shown on the drawings, or that can be computed, shall take precedence over scaled dimensions. The Drawings with the higher level of detail take precedence over less detailed Drawings.

B. Immaterial Discrepancies - The Contract Documents specify details for the construction and completion of the Work. If Contract Documents describe portions of the Work in sufficient detail but are silent in some minor respect, the Contractor may proceed utilizing the current best industry practices.

C. Material Discrepancies - If the Contractor identifies a discrepancy, error, or omission in the Contract Documents that cannot be resolved by the approach specified in B above, the Contractor shall immediately request clarification from the Engineer

00150.15 Construction Stakes, Lines, and Grades:

A. Agency Responsibilities - The Engineer will provide the location of the existing benchmarks and horizontal control locations used to design the project and prepare the Plans.

B. Contractor Responsibilities - The Contractor shall:

1. Accurately measure detailed dimensions, elevations, and slopes from the Engineer's benchmarks and horizontal control locations;
2. Provide all labor, materials and equipment to properly stake out the project so that it can be constructed in accordance with the Contract Documents. Any changes made shall be recorded and the changed vertical and horizontal locations incorporated into the "as-built" drawings.
3. Inform the Engineer of any property corners monuments and/or survey markers that are not shown on the Plans and are found during construction activities prior to disturbing the monuments. Allow the Agency 2 Work days for referencing all found markers before they are removed. Monuments that

are noted on the Plans to be protected and are disturbed by the Contractor's activities shall be replaced by the Contractor's surveyor at the Contractor's expense in accordance with ORS Chapter 209.

00150.20 Inspection:

A. Inspection by the Engineer - The Engineer may test Materials furnished and inspect Work performed by the Contractor to ensure Contract compliance. The Contractor shall notify the Engineer 48 hours (two full Work Days) in advance for inspection of each portion of the Work.

Contractor shall not begin placing successive Courses or portions of Work until preceding Courses or portions of the Work have been inspected and approved by the Engineer.

If the Contractor performs Work without the Engineer's inspection or uses Materials that the Engineer has not approved, the Engineer may order affected portions of the Work removed at the Contractor's expense.

At the Engineer's direction, any time before the Work is accepted, the Contractor shall uncover portions of the completed Work for inspection. After inspection, the Contractor shall restore these portions of Work to the standard required by the Contract. If the Engineer rejects Work due to Materials or workmanship, or if the Contractor performed such Work without providing sufficient advance request for inspection to the Engineer, the Contractor shall bear all costs of uncovering and restoring the Work. If the Engineer accepts the uncovered Work, and the Contractor performed the Work only after providing the Engineer with sufficient advance notice, the costs of uncovering and restoring the Work will be paid for by the Agency according to 00195.20.

B. Inspection Facilities - The Contractor shall furnish walkways, railings, ladders, shoring, tunnels, platforms, and other facilities necessary to permit the Engineer to have safe access to the Work to be inspected. The Contractor shall require producers and fabricators to provide safe inspection access as requested by the Engineer.

C. Sampling - When directed by the Agency, the Contractor shall furnish the Engineer with samples of Materials that the Engineer will test. All of the Contractor's costs related to this required sampling are Incidental.

D. Inspection by Third Parties - Where third parties have the right to inspect the Work, the Contractor shall coordinate with the Engineer and shall provide safe inspection access.

E. Contractor's Duty to Make Corrections - The Contractor shall perform all Work according to the Contract Documents. The Contractor shall correct Work that does not comply with the Contract Documents at its own expense. Inspection of the Work by the Engineer does not relieve the Contractor of responsibility for improper prosecution of the Work.

00150.25 Acceptability of Materials and Work - The Contractor shall furnish Materials and shall perform Work in Close Conformance to the Contract Documents. If the Engineer determines that the Materials furnished or the Work performed are not in Close Conformance with the Contract Documents, the Engineer may:

A. Reject the Materials or Work and order the Contractor, at the Contractor's expense, to remove, replace, or otherwise correct any non-conformity; or
B. Accept the Materials or Work as suitable for the intended purpose, adjust the amount paid for applicable Pay Items to account for diminished cost to the Contractor or diminished value to the Agency, document the adjustment, and provide written documentation to the Contractor regarding the basis of the adjustment.

The Engineer's decisions concerning acceptability of Materials or Work will be final.

00150.30 Delivery of Notices - Written notices to the Contractor by the Engineer or the Agency will be delivered:

A. In person;
B. By U.S. Postal Service certified or registered mail (return receipt requested), to the current office address as shown in the records of the Agency; or
C. By overnight delivery service of a private industry courier, to the current office address as shown in the records of the Agency.

Notices shall be considered as having been received by the Contractor:

A. At the time of actual receipt when delivered in person;
B. At the time of actual receipt or 7 Calendar Days after the postmarked date when deposited for delivery by certified or registered, whichever is earlier; or
C. At the time of actual receipt or 3 Calendar Days after deposit with a private industry courier for overnight delivery service, whichever is earlier.

Written notices to the Engineer or the Agency by the Contractor shall be delivered to the Agency address shown in the Special Provisions, unless a different address is agreed to by the Engineer, and shall be delivered:

A. In person;
B. By U.S. Postal Service certified or registered mail (return receipt requested); or
C. By overnight delivery service of a private industry courier.

Notices will be considered as having been received by the Agency:

A. At the time of actual receipt when delivered in person;
B. At the time of actual receipt or 7 Calendar Days after the postmarked date when deposited for delivery by certified or registered, whichever is earlier; or
C. At the time of actual receipt or 3 Calendar Days after deposit with a private industry courier for overnight delivery service, whichever is earlier.

00150.35 Submittals:

A. Description – Submittals covered by these requirements include manufacturers' information, shop drawings, test procedures, test results, samples, and miscellaneous Work-related submittals. Submittals shall also include, but not be limited to, all mechanical, electrical and electronic equipment and systems, materials, reinforcing steel, fabricated items, and piping and conduit details. The Contractor shall furnish all drawings, specifications, descriptive data, certificates, samples, tests, methods, schedules, and manufacturer's installation and warranty information and other instructions as specifically required in the Contract Documents to demonstrate fully that the materials and equipment to be furnished and the methods of work comply with the provisions and intent of the Contract Documents.

B. Contractor's Responsibilities

1. The Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the material, equipment or method of work shall be as described in the submittal. The Contractor shall verify that all features of all products conform to the specified requirements. Submittal documents shall be clearly edited to indicate only those items, models, or series of equipment, which are being submitted for review. All extraneous materials shall be crossed

out or otherwise obliterated. The Contractor shall ensure that there is no conflict with other submittals and notify the Engineer in each case where his submittal may affect the work of another contractor or the Agency. The Contractor shall coordinate submittals among its subcontractors and suppliers including those submittals complying with unit responsibility requirements specified in applicable technical sections.

2. The Contractor shall coordinate submittals with the Work so that Work will not be delayed. It shall coordinate and schedule different categories of submittals, so that one will not be delayed for lack of coordination with another. No extension of time will be allowed because of failure to properly schedule submittals. The Contractor shall not proceed with Work related to a submittal until the submittal process is complete. This requires that submittals for review and comment shall be returned to the Contractor with the indication "No Exceptions Taken" or "Make Corrections Noted."

3. Submittals shall be carefully reviewed by an authorized representative of the Contractor prior to submission to the Engineer. Each submittal shall be dated and signed by the Contractor as being correct and in strict conformance with the Contract Documents. In the case of Shop Drawings, each sheet shall be so dated and signed. Any deviations from the Contract Documents shall be noted by the Engineer and Agency. The Engineer will only review submittals that have been so verified by the Contractor. Non-verified submittals will be returned to the Contractor without action taken by the Engineer, and any delays caused thereby shall be the total responsibility of the Contractor.

4. The Contractor shall certify on each submittal document that it has reviewed the submittal, verified field conditions, and complied with the contract documents.

5. The Contractor may authorize in writing a material or equipment supplier to deal directly with the Engineer or with the Agency with regard to a submittal. These dealings shall be limited to contract interpretations to clarify and expedite the Work.

C. Shop Drawings and Product Submittals

1. Wherever called for in the Contract Documents or where required by the Engineer, the Contractor shall furnish to the Engineer for review, five (5) copies plus one reproducible copy or electronic file, of each Shop Drawing or Product submittal. Shop Drawings may include detail design calculations, shop-prepared drawings, fabrication and installation drawings, erection drawings, lists, graphs, catalog sheets, data sheets, and similar items. If a list, graph, catalog sheet, data sheet, etc. includes more than one item, clearly mark which item is the subject of the submittal. Shop Drawings shall bear the signature and seal of an engineer registered in the appropriate branch and in the state of Oregon, unless otherwise indicated. Whenever the Contractor is required to submit design calculations as part of a submittal, such calculations shall bear the signature and seal of an engineer registered in the appropriate branch and in the state of Oregon, unless otherwise indicated.

2. Shop Drawing and Product submittals shall be accompanied by the Engineer's standard submittal transmittal form, a reproducible copy of which is available from the Engineer. A submittal without the form or where applicable items on the form are not completed will be returned for resubmittal.

3. Organization

   a) A single submittal transmittal form shall be used for each technical specification section or item or class of material or equipment for which a submittal is required. A single submittal covering multiple sections will not be acceptable, unless the primary specification references other sections for components. Example: if a pump section references other sections for the motor, shop-applied protective coating, anchor bolts, local control panel, and variable frequency drive, a single

submittal would be acceptable. A single submittal covering vertical turbine pumps and horizontal split case pumps would not be acceptable.

b) On the transmittal form, index the components of the submittal and insert tabs in the submittal to match the components. Relate the submittal components to specification paragraph and subparagraph, Drawing number, detail number, schedule title, room number, or building name, as applicable.

c) Unless indicated otherwise, terminology and equipment names and numbers used in submittals shall match those used in the Contract Documents

4. Format

a) Minimum sheetsize shall be 8.5 inches by 11 inches. Maximum sheet size shall be 22 inches by 34 inches. Every page in a submittal shall be numbered in sequence. Each copy of a submittal shall be collated and stapled or bound, as appropriate. The Engineer will not collate sheets or copies.

b) Where product data from a manufacturer is submitted, clearly mark which model is proposed, with complete pertinent data capacities, dimensions, clearances, diagrams, controls, connections, anchorage, and supports. Sufficient level of detail shall be presented for assessment of compliance with the Contract Documents.

c) Each submittal shall be assigned a unique number. Submittals shall be numbered sequentially, and the submittal numbers shall be clearly noted on the transmittal. Original submittals shall be assigned a numeric submittal number (e.g., 25). If submittal "25" requires a resubmittal, the first resubmittal will bear the designation "25.A" and the second resubmittal will bear the designation "25.B" and so on.

d) If there is a follow-up submittal related to a previously submitted class of material or type of equipment (e.g., follow-up submittal to submittal "25"), it shall be assigned the number "25.1". If submittal "25.1" requires a resubmittal, the first resubmittal will bear the designation "25.1.A" and the second resubmittal will bear the designation "25.1.B" and so on

5. Disorganized submittals that do not meet the requirements of the Contract Documents will be returned without review.

6. Except as may otherwise be indicated, the Engineer will return prints of each submittal to the Contractor with comments noted thereon, within 21 Days following receipt by the Engineer. It is considered reasonable that the Contractor will make a complete and acceptable submittal to the Engineer by the first resubmittal on an item. The Owner reserves the right to withhold monies due to the Contractor to cover additional costs of the Engineer's review beyond the first resubmittal. Engineer's cost for submittal review beyond the first resubmittal is provided in the Special Provisions. The Engineer's maximum review period for each submittal or resubmittal will be 21 Days.

7. If a submittal is returned to the Contractor marked "NO EXCEPTIONS TAKEN," formal revision and resubmission will not be required.

8. If a submittal is returned marked "MAKE CORRECTIONS NOTED," Contractor shall make the corrections on the submittal, but formal revision and resubmission will not be required, except where specifically required by Engineer as indicated on the submittal review form.

9. If a submittal is returned marked "AMEND-RESUBMIT," the Contractor shall revise it and shall resubmit the required number of copies to the Engineer for review. Resubmittal of portions of multi-page or multi-drawing submittals will not be allowed. For example, if a Shop Drawing submittal consisting of 10 drawings contains one drawing noted as "AMEND - RESUBMIT," the submittal as a whole is deemed "AMEND - RESUBMIT," and 10 drawings are required to be resubmitted.

10. If a submittal is returned marked "REJECTED-RESUBMIT," it shall mean either that the proposed material or product does not satisfy the specification, the submittal is so incomplete that it cannot be reviewed, or is a substitution request not submitted in accordance with the General Conditions. In the first 2 cases, the Contractor shall prepare a new submittal and shall submit the required number of copies to the Engineer for review. In the latter case, the Contractor shall submit the substitution request according to the General Conditions.

11. Resubmittal of rejected portions of a previous submittal will not be allowed. Every change from a submittal to a resubmittal or from a resubmittal to a subsequent resubmittal shall be identified and flagged on the resubmittal.

12. Fabrication of an item may commence only after the Engineer has reviewed the pertinent submittals and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED". Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as changes to the Contract requirements.

13. Corrections or comments made on the Contractor's Shop Drawings during review do not relieve the Contractor from compliance with Contract Drawings and Specifications. Review is for conformance to the design concept and general compliance with the Contract Documents only. The Contractor is responsible for confirming and correlating quantities and dimensions, fabrication processes and techniques, coordinating Work with the trades, and satisfactory and safe performance of the Work.

D. Quality Control (QC) Submittals

1. Quality control submittals are defined as those required by the Specifications to present documentary evidence to the Engineer that the Contractor has satisfied certain requirements of the Contract Documents.

2. Unless otherwise indicated, QC submittals shall be submitted:

   a) Before delivery and unloading, for the following types of submittals:
      - Manufacturers' installation instructions
      - Manufacturers' and Installers' experience qualifications
      - Ready mix concrete delivery tickets
      - Design calculations
      - Affidavits and manufacturers' certification of compliance with indicated product requirements
      - Laboratory analysis results
      - Factory test reports'

   b) For the following types of submittals, the manufacturer's field representative shall submit a draft certification prior to leaving the Project site and a final certification within 7 days of the event documented.
      - Manufacturers' field representative certification of proper installation

   c) Within 30 Days of the event documented for the following types of submittals:
      - Field measurement
      - Field test reports
      - Receipt of permit
      - Receipt of regulatory approval

3. The Engineer will record the date that a QC submittal was received and review it for compliance with submittal requirements, but the review procedures above for Shop Drawings and samples will not apply.

E. Deferred Submittals to Agency

1. For the purposes of this section, Deferred Submittals are defined as those portions of the Project that are Contractor-designed and must be submitted to the Agency's building official for approval and to meet Building Permit plan review requirements.

2. The Engineer will schedule a pre-submittal conference with the Contractor and Agency's building official to discuss proposed Deferred Submittal items, requirements, and review schedule.

3. The Contractor shall list the Deferred Submittals on the title or cover sheet of the Drawings for submission to the Agency and shall state the design criteria/assumptions of the Deferred Submittal items on the plans. Deferred Submittals shall include details for connection of materials to the structure and calculations showing that the specified structural requirements are met.

4. The Contractor shall submit Deferred Submittals to the Engineer for review for general conformance to the design of the structure. Neither the Agency nor the Engineer is responsible for coordination of Deferred Submittal components with Contract Documents. Review does not lessen nor shift burden or responsibility from Contractor or assigned subcontractor/supplier to the Agency or Engineer. The Engineer, upon confirming the Deferred Submittals are in general conformance with the design, shall forward the Deferred Submittals to the building official. Contractor is responsible, with no exceptions, to ensure that building official's Deferred Submittal review will not adversely affect Project's construction schedule. The Deferred Submittal items shall not be installed by the Contractor until the design and Deferred Submittals have been approved by the building official.

F. Effect of Review of Contractor's Submittals

1. Review of Contract drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, shall not relieve the Contractor of its responsibility for errors therein and shall not be regarded as an assumption of risks or liability by the Engineer or the Agency, or by any officer or employee thereof, and the Contractor shall have no claim under the contract on account of the failure, or partial failure, of the method of work, material, or equipment so reviewed. An indication of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" shall mean that the Agency or Engineer has no objection to the Contractor, upon its own responsibility, using the plan or method of Work proposed, or providing the materials or equipment proposed.

00150.37 Equipment Lists and Other Submittals - The Contractor shall submit Equipment lists, and other required submittals for approval by the Engineer. With each submittal, the Contractor shall clearly identify the applicable specification sub-section and the product make, model, size and proposed options.

00150.40 Cooperation and Superintendence by the Contractor - The Contractor is responsible for full management of all aspects of the Work, including superintendence of all Work by Subcontractors, Suppliers, and other providers. The Contractor shall appoint a single Superintendent and may also appoint alternate Superintendents as necessary to control the Work. The form of appointment of the alternate shall state, in writing, the alternate's name, duration of appointment in the absence of the Superintendent, and scope of authority. The Contractor shall:

A. Provide for the cooperation and superintendence on the Project by:
   1. Furnishing the Engineer all data necessary to determine the actual cost of all or any part of the Work; added Work; or changed Work.

2. Allowing the Engineer reasonable access to the Contractor's books and records at all times. To the extent permitted by public records laws, the Engineer will make reasonable efforts to honor the Contractor's Request for protection of confidential information.
3. Keeping one complete set of Contract Documents on the Project Site at all times, available for use by all the Contractor's own organization, and by the Engineer if necessary.

B. Appoint a single Superintendent and any alternate Superintendent who shall meet the following qualifications:
   1. Appointees shall be competent to manage all aspects of the Work.
   2. Appointees shall be from the Contractor's own organization.
   3. Appointees shall have performed similar duties on at least one previous project of the size, scope and complexity as the current Contract.
   4. Appointees shall be experienced in the types of Work being performed.
   5. Appointees shall be capable of reading and thoroughly understanding the Contract Documents.

C. The appointed single Superintendent, or any alternate Superintendent shall:
   1. Be present for all On-Site Work, regardless of the amount to be performed by the Contractor, Subcontractors, Suppliers, or other providers, unless the Engineer provides prior approval of the Superintendent's or alternate Superintendent's absence.
   2. Be equipped with a two way radio or cell phone capable of communicating throughout the project during all the hours of Work on the Project Site and be available for communication with the Engineer.
   3. Have full authority and responsibility to promptly execute orders or directions of the Engineer.
   4. Have full authority and responsibility to promptly supply the Materials, Equipment, labor, and Incidentals required for performance of the Work.
   5. Coordinate and control all Work performed under the Contract, including without limitation the Work performed by Subcontractors, Suppliers, and Owner Operators.
   6. Diligently pursue progress of the Work according to the schedule requirements of Section 00180.
   7. Cooperate in good faith with the Engineer, Inspectors, and other contractors in performance of the Work.
   8. Provide all assistance reasonably required by the Engineer to obtain information regarding the nature, quantity, and quality of any part of the Work.
   9. Provide access, facilities and assistance to the Engineer in establishing such lines, grades and points as the Engineer requires.
   10. Carefully protect and preserve the Engineer's benchmarks and horizontal control locations.

Any Superintendent or alternate Superintendent who repeatedly fails to follow the Engineer's written or oral orders, directions, instructions, or determinations, shall be subject to removal from the project.

If the Contractor fails or neglects to provide a Superintendent, or an alternate Superintendent, and no prior approval has been granted, the Engineer has the authority to suspend the Work according to 00180.70. Any continued Work by the Contractor, Subcontractors, Suppliers, or other providers may be subject to rejection and removal. The Contractor's repeated failure or neglect to provide the superintendence required by these provisions constitutes a material breach of the Contract, and the Engineer may impose any remedies available under the Contract, including but not limited to Contract termination.

00150.50 Cooperation with Utilities

A. General - As specified in the Special Provisions or as shown on the Plans, existing Utilities requiring adjustment may be adjusted by the Utility before, during, or after Project construction. "Adjustment of Utilities" shall mean the alteration, improvement, connection, disconnection, relocation, or removal of existing Utility lines, facilities, or systems in temporary or permanent manner.

B. Contractor's Responsibilities - The Contractor shall:

1. Follow applicable rules adopted by the Oregon Utility Notification Center;
2. Contact Utility owners after the Contract is awarded to verify all Utilities' involvement on the Project Site;
3. Coordinate Project construction with the Utilities' planned adjustments, take all precautions necessary to prevent disruption of Utility service, and perform its Work in the manner that results in the least inconvenience to the Utility owners;
4. Include all Utility adjustment work, whether to be performed by the Contractor or the Utilities, on the Contractor's Project Work schedule submitted under 00180.41;
5. Protect from damage or disturbance any Utility that remains within the area in which Work is being performed;
6. Not disturb an existing Utility if it requires an unanticipated adjustment, but shall protect it from damage or disturbance and promptly notify the Engineer; and
7. Report to the Engineer any Utility owner who fails to cooperate or fails to follow the planned Utility adjustment.

Subject to the Engineer's approval, the Contractor may propose adjustments to the Utilities by asking the Utility owners to move, remove, or alter their facilities in ways other than as shown on the Plans or in the Special Provisions. The Contractor shall conduct all negotiations, make all arrangements, and assume all costs that arise from such changes.

C. Notification - This Project is located within the Oregon Utility Notification Center area which is a Utilities notification system for notifying owners of Utilities about Work being performed in the vicinity of their facilities. The Utilities notification system telephone number is 811 (or use the old number which is 1-800-332-2344.

The Contractor shall comply with the rules of the Oregon Utility Notification Center, OAR 952-001-0010 through OAR 952-001-0090, and ORS 757.993. The Contractor may contact the Oregon Utility Notification Center at 503-232-1987 about these rules.

00150.53 Utilities and Existing Improvements:

A. General - Information shown on the Plans as to the location of existing water courses and utilities has been compiled from available sources and may not be accurate. The Contractor shall determine the location and nature of affected water courses, utilities and underground improvements prior to commencing Work.

The Contractor shall provide for the flow of water courses and essential utilities that may be interrupted during the progress of the Work and shall restore such water courses or utilities after completion of the Work.

The Contractor shall be responsible for exploratory excavations as it deems necessary to determine the exact locations and depths of utilities which may interfere with Work. All such exploratory excavations shall be performed as soon as practicable after Notice to Proceed and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's progress. When such exploratory excavations show the utility location as shown on the Plans to be in error, the Contractor shall so notify the Engineer.

The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility. Unless otherwise provided in the Special Provisions, all potholing and exploratory work shall be incidental to the Work and no separate payment shall be made therefore.

The Contractor shall coordinate project construction with the adjustment of utilities, take all necessary precautions to prevent disturbing the utilities, and perform work so that utility owners and users are caused a minimum of inconvenience.

The Contractor shall protect underground utilities and other improvements which may be impaired during construction operations, regardless of whether or the not the utilities are indicated on the Plans. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

To ease or streamline the work, the Contractor may desire to adjust the utilities by asking the utility owners to move, remove, or alter their equipment in ways other than those shown on the Plans or in the Contract Documents. The Contractor shall conduct the negotiations, make the arrangements, and pay all costs that arise from such changes.

B. Utilities to be Removed or Relocated - Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of the property of any public utility or franchise holder, such utility company or franchise holder shall be notified by the Contractor to remove or relocate such property within a specified reasonable time. When utility lines that are to be removed or relocated are encountered within the area of operations, the Contractor shall notify the utility company and the Engineer a sufficient time in advance for the necessary measures to be taken to prevent the interruption of service.

C. Underground Utilities and Improvements Indicated - Existing utility lines and underground improvements that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines and underground improvements that are encountered during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired or replaced by the Contractor, unless otherwise repaired by the owner of damaged utility. If the owner of the damage facility performs its own repairs, the Contractor shall reimburse said owner for the costs of repair.

D. Underground Utilities and Improvements Not Indicated - In the event that the Contractor damages existing utility lines or underground improvements that are not indicated in the Plans or marked in the field, or are not indicated or marked with reasonable accuracy, or the locations of which are not made known to the Contractor prior to excavation, the Contractor shall immediately provide a verbal report of such damage to the Engineer, and provide a written report thereof promptly thereafter. The Contractor shall immediately notify the owner of the damaged utility. If directed by the Engineer, repairs shall be made by the Contractor under the provisions for changes and extra work contained in the General Conditions.

This subsection applies only to main line utilities. For service lines to private properties, see Subsection 00150.53E.

For purposes of this section, "reasonable accuracy" is defined as within two (2) feet from the outside lateral dimensions of both sides of an underground utility or facility from actual location. No representation shall be made concerning the accuracy of vertical elevations of existing utilities, even if indicated in the plans, and no additional payment will be made for damage to utilities encountered at depths differing from those indicated.

E. Underground Services Indicated or Not - If service lines are encountered, whether shown, marked or not, the Contractor shall take precautions to carefully work around them and repair them if they are damaged by the Contractor, at no additional cost to the Agency.

F. Approval of Repairs - All repairs to a damaged utility or improvement shall be accepted and approved by an authorized representative of the utility or improvement owner and accepted by the Agency before being concealed by backfill or other Work.

G. Agency's Right of Access - The right reserved to the Agency and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this Contract.

00150.55 Cooperation with Other Contractors - The Agency reserves the right to perform other work on or near the Project Site, including without limitation any Materials site, with forces other than those of the Contractor.

If such work takes place on or near the Project Site, the Contractor shall have the following obligations:

A. The Contractor shall coordinate Work with other contractors or forces.
B. The Contractor shall cooperate in good faith with all other contractors or forces.
C. The Contractor shall perform the Work specified in the Contract in a way that will minimize interference and delay for all forces involved.
D. The Contractor shall place and dispose of the Materials being used so as not to interfere with the operations of other forces.
E. The Contractor shall join the Work with that of other forces in a manner acceptable to the Engineer or the Agency, and shall perform it in the accepted sequence with the work of the other force.

The Engineer will resolve any disagreements under this Subsection that may arise among the Contractor and other work forces, or between the Contractor and the Agency. The Engineer's decision in these matters is final, as provided in 00150.00.

When the schedules for Work of the Contractor and the work of other forces overlap, each contractor involved shall submit a current, realistic progress schedule to the Engineer. Before the Engineer accepts the schedule, each party shall have the opportunity to review all schedules. After this review and any necessary consultations, the Engineer will determine acceptable schedules.

The Contractor waives any right it may have to make claims against the Agency for any damages or claims that may arise because of inconvenience, delay, or loss due solely to the presence of other contractors working on or near the Project Site.

If the Contract gives notice of work to be performed by other forces that may affect the Contractor's Work under the Contract, the Contractor shall include any costs associated with coordination of the Work in the appropriate Pay Item or as a portion of a Pay Item.

In an emergency, the contractor most immediately able to respond may repair a facility or Utility of another contractor in order to prevent further damage to the facility, Utility, or other Structure as a result of the emergency.

00150.60 Construction Equipment Restrictions:

A. Load and Speed Restrictions for Construction Vehicles and Equipment - The Contractor shall comply with legal weight and speed restrictions when moving Materials or Equipment beyond the limits of the Project Site.

The Contractor shall control vehicle and Equipment loads and speeds within the Project Site according to the following restrictions, unless the Special Provisions provide otherwise:

1. The Contractor shall restrict loads and speeds as necessary to avoid displacement or loss of Materials on Subgrades and Aggregate Bases.
2. The Contractor shall restrict weights to legal loads, and shall travel at speeds of no more than 45 mph or the posted construction speed, whichever is less, on treated Bases, Pavement, or wearing Courses.
3. The Contractor shall not cross Bridges or other Structures with Equipment or vehicles exceeding the legal load limit without prior written permission of the Engineer. The Contractor shall make any such request in writing, describing the loading details and the arrangement, movement, and position of the Equipment on the Structure. The Contractor shall comply with any restrictions or conditions included in the Engineer's written permission.

B. Protection of Buried Items - The Contractor shall use temporary fill or other methods to avoid overload of pipes, box culverts, and other items that are covered, or to be covered, by fill or backfill.

C. Responsibility for Damages - The Contractor shall assume responsibility for damages caused by excessive Equipment speed or loads while performing the Work, both inside and outside the Project Site. The Engineer's permission to cross Bridges and other Structures, according to 00150.60(a) will not relieve the Contractor from responsibility for load-caused damages.

00150.70 Detrimental Operations - The Contractor shall avoid operations whose methods, conditions, or timing may injure people or damage property or the Work. Damage may include without limitation, staining surfaces with mud or asphalt, or damaging utilities, structures or foundations. (Also see 00150.60, 00150.75, and Section 00170)

When any such damage occurs, the Engineer will determine if it is to be corrected by repair, replacement, or compensatory payment by the Contractor. If compensatory payment is required, the Engineer will determine the amount. Compensatory payment may be deducted from monies due or to become due to the Contractor under the Contract.

00150.75 Protection and Maintenance of Work During Construction - The Contractor shall protect and maintain the Work during construction and until Third Notification has been issued, unless otherwise provided in the Contract. For the purposes of this Subsection, "maintenance" shall include measures to prevent deterioration of Roadway and Structures at the Project Site, and to keep them in good condition at all times during the prosecution of the Work. The Contractor shall continuously allocate sufficient Equipment and workers to achieve such maintenance.

If the Contract requires the placement of a Course upon a previously constructed Course or Subgrade, the Contractor shall maintain the previous Course or Subgrade during all construction operations.

The Contractor shall include costs of protecting and maintaining the Work during construction in the unit prices bid for the various Pay Items. The Contractor will not be paid an additional amount for this Work, unless otherwise specified.

The Engineer will timely notify the Contractor of Contractor's noncompliance with this Subsection. If the Contractor fails to remedy unsatisfactory protection or maintenance within 24 hours after receipt of such notice, the Engineer may proceed to remedy the deficiency, and deduct the entire cost from monies due or to become due the Contractor under the Contract.

00150.80 Removal of Unacceptable and Unauthorized Work - The Contractor shall correct or remove unacceptable Work and remove unauthorized work, as directed by the Engineer in writing. The Contractor shall replace such work with Work and Materials conforming to the requirements of the Contract.

For the purposes of this Subsection, "unauthorized work" shall include without limitation the following:

A. Work that extends beyond lines shown on the Plans or otherwise established by the Engineer;
B. Work that is contrary to the Engineer's instructions; and
C. Work that is conducted without the Engineer's written authorization.

The Agency will not pay the Contractor for unacceptable Work, except as provided in 00150.25, or unauthorized work. The Engineer may issue a written order for the correction or removal of such work at the Contractor's expense.

If, when ordered by the Engineer, the Contractor fails to correct or remove unacceptable Work or unauthorized work, the Engineer may have the correction, removal, or removal and replacement, done by others and deduct the entire cost from monies due or to become due the Contractor under the Contract.

00150.90 Final Inspection:

A. On-site Construction Work - The Engineer will inspect the Project at a time close to the completion of On-Site Work for Contractor's compliance with the Contract Documents.

When all On-Site Work on the Project is completed, including but not limited to Change Order Work and Extra Work, the Engineer will issue Second Notification as specified in 00180.50G including notification of required corrective work (punch list) to be completed prior to Engineer's issuance of Third Notification (Final Completion).

Within 15 Calendar Days after the Engineer receives the Contractor's written notification that all punch list items, final trimming and cleanup according to 00140.90 have been completed, the Engineer will inspect the Project and notify the Contractor that all Work is complete, or within 15 Calendar Days of inspection will give the Contractor written instruction regarding incomplete or unsatisfactory Work.

B. All Contract Work - The Engineer will issue the Third Notification when the Contractor has satisfactorily accomplished all of the following:

1. The Contractor has completed all On-Site Work required under the Contract, including the punch list items from (a) above;
2. The Contractor has removed all Equipment; and
3. The Contractor has submitted all required certifications, bills, forms, warranties and other documents.
4. The Contractor has submitted complete and acceptable "As-Built" drawings as specified in 00140.95.

00150.91 Post-Construction Review - The Contractor or the Engineer may request a Post-Construction Review meeting, to be held at a time prior to issuance of Third Notification but not earlier than 15 Days following the date of Second Notification. The meeting may be held if agreed to by both parties. The party making the request will conduct the meeting, and will announce the time and place of the meeting at least 15 Days prior to the meeting date. The purpose of this meeting is to examine the Project for possible process improvements that may benefit future projects.

00150.95 Final Acceptance - After the Engineer completes Final Inspection of all Work including all corrective work identified by the Agency during the Correction Period, the Agency will acknowledge Final Acceptance. The Agency will notify the Contractor in writing of the date of Final Acceptance within 7 Calendar Days after Final Acceptance, or as soon thereafter as is practicable.

00150.96 Maintenance Warranties and Guarantees - Prior to Second Notification, the Contractor shall transfer to the Agency all unexpired manufacturers', suppliers' and installers' warranties and guarantees for Materials and Equipment installed on the Project. Such warranties and guarantees shall recite that they are enforceable by the Agency.

00150.97 Responsibility for Materials and Workmanship:

A. The Contractor shall perform the Work according to the terms, conditions, and requirements of the Contract.

B. Until the Agency's Final Acceptance of the Work, the Contractor shall be responsible for:

1. Correcting or repairing any defects in, or damage to, the Work which results from the use of improper or defective materials or workmanship; or
2. Replacing, in its entirety, the Work affected by the use of improper or defective materials or workmanship to the extent provided by law; and
3. Correcting or repairing any Work, Materials, Structures, Existing Surfacings, Pavement, Utilities, or sites, including without limitation Wetlands, damaged or disturbed in that correction, repair, or replacement. (see 00170.80 to 00170.85).

Section 00160 - Source of Materials

00160.00 Definitions - The following definitions apply to Section 00160:

A. Prospective Source - Agency-furnished Materials source, use of which by the Contractor is optional. The Agency makes no guarantee or representation, by implication or otherwise, of the land use status, quantity, quality, or acceptability of Materials available from it, except as may be stated in the Special Provisions.

B. Mandatory Source - Agency-furnished Materials source, use of which by the Contractor is required.

00160.01 Notification of Source of Supply and Materials:

A. All Materials - The Contractor shall notify the Engineer in writing of all proposed Materials sources of supply, including without limitation any steel or other fabricators within the following time frames:

1. At least 15 Calendar Days before using or fabricating Materials, if source is within the State; or
2. At least 45 Calendar Days before using or fabricating Materials, if source is outside the State

B. Prospective Source Materials - When given an option to use Prospective Sources of Materials to be incorporated into the Work, the Contractor shall notify the Engineer in writing of the option selected within 15 Calendar Days from date of Notice to Proceed. Otherwise, such Materials sources may become unavailable.

C. Approval Required - Before allowing production or delivery of Materials to begin from any source, the Contractor must obtain the Engineer's approval. Approval to use any source does not imply that Materials from that source will be accepted. If approved sources do not provide Materials that meet Specifications, the Materials will be rejected. The Contractor will then be responsible for locating other sources and obtaining the Engineer's approval.

D. Terms Required - The Contractor shall comply with 00170.07.

00160.05 Qualified Products List (QPL) - The QPL is a listing of manufactured products available on the market (shelf items) that ODOT has evaluated and found suitable for a specified use in construction. The QPL is available from ODOT's Construction Section website at:
www.oregon.gov/ODOT/construction/pages/qualified-products.aspx

The current version of the QPL at the time of Bid Closing is the version in effect for the Project. The Engineer may approve for use a conditionally qualified product, or a product qualified for inclusion in a later edition of the QPL, if the Engineer finds the product acceptable for use on the Project.

Use of listed products shall be restricted to the category of use for which they are listed. The Contractor shall install all products as recommended by the manufacturer. The Contractor shall replace qualified products not conforming to Specifications or not properly handled or installed at the Contractor's expense.

00160.10 Ordering, Producing, and Furnishing Materials - The Contractor shall not place orders for or produce full quantities of Materials anticipated to be required to complete the Work until the Work has advanced to a stage that allows the quantities to be determined with reasonable accuracy.

A. Contractor's Duties - In purchasing, producing, or delivering Materials, the Contractor shall take into account the following:

1. Kind of work involved;
2. Amount of work involved;
3. Time required to obtain Materials; and
4. Other relevant factors.

B. Quantity of Materials - Materials quantities shown on the Plans, or indicated by quantities and Pay Items, are subject to change or elimination. The Contractor is responsible for payment for excess Materials delivered to the Project Site or storage sites. Unless otherwise specified in the Contract, the Agency will not be responsible for:

1. Materials the Contractor may deliver or produce in excess of Contract requirements;
2. Extra expense the Contractor may incur because Materials were not ordered or produced earlier; or
3. The Contractor's expenses related to Materials ordered by the Contractor that are not subsequently approved for use.

00160.20 Preferences for Materials:

A. Buy America - If federal highway funds are involved on the Project, the Contractor shall limit the quantity of foreign Materials incorporated into the Work as follows. Section 635.410 of Title 23, Code of Federal Regulations, and the Intermodal Surface Transportation Efficiency Act require that all iron or steel manufacturing processes, including without limitation the casting of ingots, for iron or steel Materials permanently incorporated into the Project shall occur in the United States, unless the cost of foreign-origin iron or steel Materials does not exceed one-tenth of one percent (0.1%) of the Contract Amount or $2,500, whichever is greater. The Contractor shall not incorporate foreign-origin iron or steel Materials in excess of this amount into the Project. All foreign-origin iron or steel Materials incorporated in the Project in excess of the amount indicated above shall be removed and replaced with domestic iron or steel Materials at the Contractor's expense. For purposes of this Specification, the cost of foreign-origin iron or steel Materials shall be the value of the iron or steel products as of the date they are delivered to the Project Site.

Manufacturing processes include without limitation the application of coatings to finished iron or steel products or components. Coatings include epoxy coating, galvanizing, painting, and any other coating that protects or enhances the value of the steel or iron product or component.

The Contractor shall provide the Engineer with a Certificate of Materials Origin, on a form furnished by the Engineer, before incorporating any iron or steel products into the Project. Unless a Certificate of Materials Origin has been provided to the Engineer, the Materials shall be considered of foreign origin.

The Contractor shall retain manufacturers' certificates verifying the origin of all domestic iron or steel Materials for 3 years after the date of final payment for the Project, and shall furnish copies to the Engineer upon request.

B. Buy Oregon - According to ORS 279A.120, the Contractor shall give preference to goods or services produced in Oregon if price, fitness, availability, and quality are equal. This provision does not apply to Contracts financed wholly or in part by federal funds.

C. Recycled Materials - According to ORS 279A.010, ORS 279A.125, ORS 279A.145, ORS 279A.150, and ORS 279A.155, and subject to the approval of the Engineer, the Contractor shall use recycled products to the maximum extent economically feasible.

00160.30 Agency-Furnished Materials - Unless otherwise specified in the Special Provisions, Materials listed as Agency-furnished will be available to the Contractor free of charge.

The Contractor shall be responsible for all Materials furnished by the Agency and shall pay all demurrage and storage charges. The Contractor shall replace at its expense Agency-furnished Materials lost or damaged due to any cause.

The locations at which Agency-furnished Materials are available will be specified in the Special Provisions. If the locations are not listed in the Special Provisions, the Agency-furnished Materials will be furnished to the Contractor at the Project Site. In either case, all costs of handling, hauling, unloading, and placing Agency-furnished Material shall be considered included in the price paid for the Pay Item involving such Material.

All Agency-furnished Materials not incorporated into the Work remains the property of the Agency. The Contractor shall deliver such Materials as directed by the Engineer.

00160.50 Agency-Controlled Land; Limitations and Requirements:

A. General - The Contractor shall have no property rights in, or right of occupancy on, Agency-Controlled Land. Nor shall the Contractor have the right to sell, use, remove, or otherwise dispose of any material from Agency-Controlled Land, areas, or property, except as specified in the Special Provisions or by the written authorization of the Engineer.

Unless authorized in the Contract, the Contractor shall not disturb any material within Rights-of-Way without written authorization from the Engineer.

Unless otherwise specified in the Contract, the ownership of all materials originating on Agency-Controlled Lands will at all times vest in, and remain within the control of, the Agency.

B. Waste, Excess, and By-Product Materials - All waste, excess, and by-product materials, collectively referred to in this Subsection as "By-Products", from the manufacture or production of Materials from Agency-Controlled Lands shall remain Agency property. Unless otherwise ordered by the Engineer in writing, By-Products shall be placed as required In the Special Provisions:

1. In stockpiles at designated locations
2. At locations and in shapes that are readily accessible; and
3. In such a manner as to avoid fouling areas containing useable materials, or interfering with future plant setups to use materials from the property.

The Agency will not compensate the Contractor for handling and stockpiling By-Products according to the Special Provisions requirements. If by written order the Engineer directs the Contractor to stockpile or place designated By-Products at alternate sites, the By-Products designated shall be loaded, hauled, and placed as directed, and this work will be paid for according to 00195.20.

00160.60 Contractor-Furnished Materials and Sources:

A. General - The Contractor shall furnish, at its own expense, all products and Materials required for the Project from sources of its own choosing, unless such sources have been specified in the Special Provisions or Plans as Prospective or Mandatory Sources.

B. Acquisition of Sources - The Contractor shall acquire, at its own expense, the rights of access to, and the use of, all sources the Contractor chooses which are not Agency-controlled and made available by the Agency to the Contractor.

C. Additional Requirements - Except for continuously-operated commercial sources, Work shall not begin, nor will any Materials be accepted by the Engineer, until the Contractor has:

1. Given to the Engineer a copy of permits from, or proof that permits are not required from:
   a) The Department of Geology and Mineral Industries, as required under ORS 517.790;
   b) The Department of State Lands, as required under ORS 196.815 (when removing material from the bed or banks of any waters or from any Wetland); and
   c) Local governmental authorities having jurisdiction over land use at the source location.

2. Furnished to the Engineer written approval of the property owner, if other than the Contractor, for the Contractor's proposed plans of operation in, and reclamation of, the source. The Contractor shall include in the document containing the property owner's written approval a summary of the requirements of the permits described above, which shall be subject to the Engineer's approval.

00160.70 Requirements for Plant Operations - Before operating mixing plants, Rock crushers, or other Equipment, the Contractor shall provide the Engineer copies of all applicable discharge permits for noise, air contaminants, and water pollutants from DEQ or applicable local jurisdictions, or a letter from DEQ or the local jurisdiction stating that no permits are required for the use of the Equipment and sites.

00160.80 Requirements for Sources of Borrow and Aggregate - The Contractor shall conduct operations according to all applicable federal, State, and local laws (including without limitation ORS 517 and OAR 632-030) when developing, using, and reclaiming all sources of Borrow material and Aggregate. The Contractor shall provide erosion control at Borrow sources that are not within the Project Site. The Contractor shall not operate in Wetlands except as allowed by permit. The Contractor shall comply with all requirements for pollution and sediment control, including without limitation the National Pollutant Discharge Elimination System where applicable.

Except for continuously-operated commercial sources, the Contractor shall also conform to the following:

A. If a natural growth of trees or shrubs is present, preserve a border of such to conceal land scars.

B. Excavate Borrow sources and Aggregate sources, except for those in streams and rivers, to provide:

1. Reasonably uniform depths and widths;
2. Natural drainage so no water stands or collects in excavated areas, when practicable;
3. Slopes trimmed to blend with the adjacent terrain upon completion of operations;
4. Slopes covered with native soil, or acceptable plant rejects to support plant growth, if required by Specifications, Plans, or permits; and
5. A vegetative cover that blends with the adjacent natural growth.

C. Excavate in quarries so that:

1. Faces will not be steeper than vertical (no overhang);
2. Vertical faces conform to Oregon OSHA standards, Division 3, and as shown on an approved development plan;
3. Floors or benches are excavated to a uniform Slope free of depressions and will drain and not interfere with the downland owner's property; and
4. Upon completion, the quarry is left appearing neat and compatible with surrounding terrain.

D. Obliterate haul roads specifically built for access to sources, and restore the areas disturbed by these roads as nearly as practicable to the conditions that existed before the roads were built, unless otherwise directed by the landowner or regulatory body.

Section 00165 - Quality of Materials

00165.00 General - The Contractor shall incorporate into the Work only Materials conforming to the Specifications and approved by the Engineer. The Contractor shall incorporate into the Work only manufactured products made of new materials unless otherwise specified in the Contract. The Agency may require additional testing or retesting to determine whether the Materials or manufactured products meet Specifications.

Materials or manufactured products not meeting the Specifications at the time they are to be used are unacceptable and must be removed immediately from the Project Site, unless otherwise directed by the Engineer.

00165.01 Rejected Materials - The Engineer may reject any Materials that appear to be defective (00150.25) or that contain asbestos. The Contractor shall not incorporate any rejected Materials into the Work. Rejected Materials whose defects have been corrected may not be incorporated into the Work until the Engineer has approved their use. The Engineer may order the removal and replacement by the Contractor, at Contractor's expense, of any defective Materials. (refer also to 00150.20)

00165.03 Testing by Agency - When testing Materials, the Agency will conduct the tests in laboratories designated by the Engineer, even though certain AASHTO, ASTM, and other Materials specifications may require testing at the place of manufacture. Results of the Agency's tests will be made available to the Contractor.

00165.04 Costs of Testing - When the Contract requires that the Agency performs the testing, the testing will be at the Agency's expense.

Unless otherwise provided in the Contract, all testing required to be performed by the Contractor will be at the Contractor's expense.

00165.10 Materials Acceptance Guides - Unless otherwise specified elsewhere in the Contract, Materials will be accepted according to the following guides:

A. Field-Tested Materials - Field-tested Materials will be accepted according to the ODOT Manual of Field Test Procedures (MFTP) unless otherwise specified in the Special Provisions. The MFTP is published once per year and is available from the ODOT –Construction Section, 800 Airport Road SE; Salem, OR 97301-4798; phone 503-986-3000. The MFTP is also available on the ODOT Construction Section web site.

B. Nonfield-Tested Materials - Nonfield-tested Materials will be accepted according to the ODOT Nonfield Tested Materials Acceptance Guide (NTMAG), unless otherwise specified in the Special Provisions. The NTMAG is available on the ODOT Construction Section web site.

00165.20 Materials Specifications and Test Method References - References to Materials specifications and test methods of ODOT, WAQTC, AASHTO, ASTM, other governmental agencies, or other recognized organizations mean those officially adopted and in current use by the agency or organization on the first date of Advertisement for Bids.

If there are conflicting references, or if no reference is made to Materials specifications or test method, Materials must meet the Materials specifications or test methods required by the first applicable of the following agencies and organizations:

A. Field-Tested Materials:
   1. Special Provisions
   2. Standard Specifications; and
   3. MFTP

B. Nonfield Tested Materials:
   1. ODOT
   2. WAQTC,
   3. AASHTO,
   4. ASTM;
   5. Other recognized national organizations, such as ANSI, AWPA, IMSA, and UL; and
   6. Industry standards in the location where the Work is being performed.

If there are conflicting references in the Contract to required sampling and testing frequencies, the Contractor shall sample and test the Materials according to the first applicable of the following:

A. Special Provisions;
B. Standard Specification; and
C. MFTP.

00165.30 Field-Tested Materials

A. Acceptance of Field-Tested Materials - The Contractor's test results for field-tested Materials may be verified by the Agency. Materials will be analyzed as determined by the Engineer for acceptance before the Engineer will accept them for incorporation into the Work. Incorporated Materials that do not meet Specifications will be evaluated according to 00165.01 and 00150.25.

If the Agency's verification testing reveals that the Contractor's data is incorrect, the Agency may require additional testing to determine whether the Materials meet Specifications. The Contractor shall perform additional quality control testing or provide split samples to the Agency for additional testing as directed. If the Materials do not meet Specifications, the Contractor shall reimburse the Agency for the cost of the additional testing, which may be deducted from monies due or to become due the Contractor under the Contract. Incorporated Materials that do not meet Specifications will be evaluated according to 00165.01 and 00150.25. If the Materials meet Specifications the Agency will pay the cost for the additional testing.

00165.35 Nonfield-Tested Materials - Materials will be subject to acceptance testing if the Engineer so elects. The Engineer may reject damaged or non-Specification Materials regardless of the Materials Test Results and Quality Compliance Certificates furnished.

A. Test Results Certificate - The Certificate shall:

1. Be from the manufacturer verifying that the Material furnished has been sampled and tested and the test results meet the Specifications.
2. Include, or be accompanied by, a copy of the specified test results (ODOT, AASHTO, ASTM, UL or other).
3. Identify the independent testing agency and the representative responsible for the test results.
4. Permit positive determination that Material delivered to the Project is the same Material covered by the test results.
5. Be delivered to the Engineer with the shipment of the material.

B. Quality Compliance Certificate - The Certificate from the manufacturer shall:

1. Verify that the Material meets the Specifications, and identify by number the specified test methods used, (ODOT, AASHTO, ASTM, UL, or other)
2. Permit positive determination that Material delivered to the Project is the same Material covered by the certificate,
3. Be delivered to the Engineer with the shipment of the Material, or be an identification plate or mark, decal, sticker, label, or tag attached to the container or Material,

C. Equipment List and Drawings - These consist of lists of proposed Equipment and Materials, such as:

1. Shop drawings
2. Material lists
3. Equipment lists
4. Catalog description sheets
5. Manufacturer's brochures

Submit these lists to the Engineer for review of conformance with the Specifications.

D. Certificate of Origin of Steel Materials - When specified, complete this document (ODOT Form 734-2126) as required by 00160.20 for Federal-aid projects.

00165.50 Acceptance Sampling and Testing - The Contractor shall sample and test Materials for acceptance, as required by the Contract. Materials will be analyzed as determined by the Engineer for acceptance before the Engineer will accept them for incorporation into the Work. When the Engineer determines the Materials or Work does not conform to the Specifications the Engineer may accept the Materials or Work with pay adjustments or reject the Materials or Work per 00150.25.

00165.70 Use of Materials without Engineer's Acceptance:

A. General - The Contractor shall not incorporate Materials into the Project prior to acceptance by the Engineer. The Engineer may waive this requirement temporarily if Materials are necessary for immediate traffic safety.

B. Materials Incorporated for Immediate Traffic Safety - If Materials are incorporated into the Project for immediate traffic safety before acceptance by the Engineer, no payment will be made for the value of the Materials, or the costs of incorporating them, until Materials are accepted by the Engineer, or the Materials are otherwise found through testing to comply with Specifications.

00165.75 Storage and Handling of Materials - The Contractor shall store and handle Materials so as to preserve their quality and fitness for incorporation into the Work. The Contractor shall restore all storage sites to their original condition according to 00140.90, or to comply with any applicable permits, orders, or agreements, at the Contractor's expense.
Stored Materials:

A. Shall be readily accessible for inspection;
B. May be stored on approved parts of the Right-of-Way; and
C. May be stored on private property if written permission of the owner or lessor is obtained.

00165.80 Measurement - No separate measurement will be made of Work performed under this Section.

00165.90 Incidental Basis - No separate or additional payment will be made for sampling, testing, certification, or other associated Work performed under this Section, whether performed by the Contractor, manufacturer, producer or supplier. No payment will be made for providing quality control personnel.

Section 00170 - Legal Relations and Responsibilities

00170.00 General - The Contractor shall comply with all laws, ordinances, codes, regulations and rules, (collectively referred to as "Laws" in this Section), that relate to the Work or to those engaged in the Work. Where the provisions of the Contract are inconsistent or in conflict, the Contractor shall comply with the more stringent standard.

The Contractor shall indemnify, defend, and hold harmless the Agency and its representatives from liability arising from or related to the violation of Laws by those engaged in any phase of the Work. This provision does not apply to Work performed by Agency employees.

In any litigation, the entire text of any order or permit issued by a governmental or regulatory authority, as well as any documents referenced or incorporated therein by reference, shall be admissible for the purpose of Contract interpretation.

The Contract shall not be construed against either party regardless of which party drafted it. Other than as modified by the Contract, the applicable rules of contract construction and evidence shall apply. This Contract shall be governed by and construed according to the laws of the State of Oregon without regard to principles of conflict of laws.

Any dispute between the Agency and the Contractor that arises from or relates to this Contract and that is not resolved under the provisions of Section 00199 shall be brought and conducted solely and exclusively within the Circuit Court for the State of Oregon in the county where the Agency's main office is located; provided, however, if a dispute must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this Subsection be construed as a waiver by the State of Oregon on any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court. CONTRACTOR BY EXECUTION OF THE CONTRACT HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF THE COURTS REFERENCED IN THIS SECTION.

00170.01 Other Agencies Affecting Agency Contracts - Representatives of regulatory bodies or units of government whose Laws may apply to the Work shall have access to the Work according to 00150.20(d). These may include but are not limited to those in the following A, B, C, and D.

A. Federal Agencies:

Agriculture, Department of
Forest Service
Natural Resource Conservation Service
Army, Department of the
Corps of Engineers
Commerce, Department of
National Marine Fisheries Service
Defense, Department of
Energy, Department of
Environmental Protection Agency (EPA)
Federal Energy Regulatory Commission
Geology Survey
Health and Human Services, Department of
Homeland Security, Department of
U.S. Coast Guard (USCG)
Housing and Urban Development, Department of

Interior, Department of
- Heritage, Conservation, and Recreation Service
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Mines
- Bureau of Reclamation
- Geological Survey
- Minerals Management Service
- Office of Surface Mining, Reclamation, and Enforcement

Solar Energy and Energy Conservation Bank
U.S. Fish and Wildlife Service
Labor, Department of
- Mine Safety and Health Administration
- Occupational Safety and Health Administration (OSHA)

Transportation, Department of
- Federal Highway Administration

Water Resources Council

B. State of Oregon Agencies:

Administrative Services, Department of
Agriculture, Department of
- Natural Resources Division
- Soil and Water Conservation District

Columbia River Gorge Commission
Consumer and Business Services, Department of
- Insurance Division
- Oregon Occupational Safety and Health Division (OR-OSHA)

Energy, Office of
Environmental Quality, Department of (DEQ)
Fish and Wildlife, Department of
Forestry, Department of
Geology and Mineral Industries, Department of
Human Resources, Department of
Labor and Industries, Bureau of
Land Conservation and Development Department
Parks and Recreation, Department of
State Lands, Department of
Water Resources Department

C. Local Agencies:

City Councils
County Courts
County Commissioners, Boards of
Design Commissions
Historical Preservation Commissions
Lane Regional Air Pollution Authority (LRAPA)
Planning Commissions
Port Districts
Special Districts

D. Oregon Federally Recognized Tribal Governments:

Burns Paiute Tribe
Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians
Confederated Tribes of Grand Ronde
Confederated Tribes of Siletz
Confederated Tribes of Umatilla Indian Reservation
Confederated Tribes of Warm Springs
Coquille Tribe
Cow Creek Band of Umpqua Indians
Klamath Tribe

00170.02 Permits, Licenses, and Taxes - As required to accomplish the Work, the Contractor shall do the following:

A. Obtain all necessary permits and licenses, except for those noted in 00170.03;
B. Pay all applicable charges, fees and taxes, except for those noted in 00170.03;
C. Give all notices required by applicable Laws, or under the terms of the Contract;
D. Comply with ORS 274.530 relating to lease of stream beds by Oregon Division of State Lands;
E. License, in the State of Oregon, all vehicles subject to licensing;
F. Comply with ORS 477.625 and ORS 527.670 relating to clearing and fire hazards on forest lands; and
G. Comply with all orders and permits issued by a governmental authority, whether local, State, or federal.

00170.03 Furnishing Rights-of-Way, Easements and Permits - Unless required to be obtained in the name of the Contractor, the Agency will obtain and pay for the following when they are required by the applicable Laws or by Plans or Specifications:

A. All necessary Rights-of-Way, Easements and Rights-of-Entry;
B. Permits required for crossing or encroaching upon navigable streams;
C. Permits required for removing materials from or depositing materials in waterways;
D. Permits required for operating in Agency-controlled source of Materials or disposal area;
E. System development fees charged by local units of government;
F. Building construction permits, not including specialty work such as heating, ventilation, air conditioning, or electrical;
G. Cost of referencing and replacing endangered survey monuments; and
H. Environmental permits, including erosion control permits.

If, after the Bid Closing date, the Agency obtains any Permits, Rights-of-Way or Easements which require changes to the Work and thereby causes an increase or decrease in the cost of, or the time required for the performance of the Work, the Contractor shall submit information sufficient for the Engineer to determine the extent of the effects on the cost and/or schedule. If the Engineer agrees the cost and/or schedule will be affected by such changes, such effects will be handled in accordance with the General Conditions. The Engineer will provide the Contractor with a copy of any such Permits, Rights-of-Way or Easements.

00170.04 Patents, Copyrights, and Trademarks - Prior to use of designs, devices, materials, or processes protected by patent, copyright, or trademark, the Contractor shall obtain from the Entity entitled to enforce the patent, copyright, or trademark all necessary evidence of legal right, to use such design, device, material or process.

The Contractor shall indemnify, defend and hold harmless the Agency and all third parties and political subdivisions having a possessory or ownership interest or regulatory authority over the Project or Project Site from claims of patent, copyright or trademark infringement, and from costs, expenses and damages the

Contractor or Agency may be obligated to pay as a result of such infringement during or after completing the Work.

00170.05 Assignment of Antitrust Rights - The Contractor irrevocably assigns to the Agency any claim for relief or cause of action the Contractor acquires during the term of the Contract, or which may accrue thereafter, by reason of any violation of:

A. Title 15 (Commerce and Trade), United States Code;
B. ORS 646.725; or
C. ORS 646.730.

In connection with this assignment, it is an express obligation of the Contractor to take no action that would in any way impair or diminish the value of the rights assigned to the Agency according to the provisions of this Subsection. Further, it is the express obligation of the Contractor to take all action necessary to preserve the rights assigned. It is an express obligation of the Contractor to advise the Agency's legal counsel:

A. In advance, of its intention to commence any action involving such claims for relief or causes of action;
B. Immediately upon becoming aware of the fact that an action involving such claims for relief or causes of action has been commenced by some other person or persons;
C. The date on which it notified the obligor(s) of any such claims for relief or causes of action of the fact of the Contractor's assignment to the Agency according to the provisions of this Subsection; and
D. Immediately upon the discovery of any such antitrust claim for relief or cause of action.

In the event any payment is made to the Contractor under any such claims for relief, the Contractor shall promptly pay the full sum over to the Agency. In the event the Contractor fails to make such payment, the Agency may deduct the amount from monies due or to become due the Contractor under the Contract.

00170.07 Record Requirements - For purposes of this Subsection the term "Contractor" includes the Contractor, all subcontractors, Material Suppliers, and providers of rented operated Equipment (except non-DBE truck drivers), at all tiers, for all subcontracts with first-tier Subcontractors, all subcontracts between the first-tier Subcontractors and their subcontractors and any other lower tier subcontracts, and "Related Entities" as that term is defined in OAR 734-010-0400. The Material Suppliers included in this definition are those for Aggregates, Asphalt Cement Concrete, Portland Cement Concrete and the supply and fabrication of structural steel items or Material Suppliers that provide quotes.

A. Records Required - The Contractor shall maintain all records, whether created before or after execution of the Contract, or during Contract performance, or after Contract completion, to clearly document:

1. The Contractor's performance of the Contract or a subcontract;
2. The Contractor's ability to continue performance of the Contract or a subcontract; and
3. All claims arising from or relating to performance under the Contract or a subcontract.

These records shall include all records, including fiscal records, regardless of when created for the Contractor's business. The records for the Contractor's business include without limitation the:

1. Bidding estimates and records, worksheets, tabulations or similar documents.
2. Job cost detail reports, including monthly totals.
3. Payroll records (including without limitation the ledger or register, and tax forms) and all documents which establish the periods, individuals involved, the hours for the individuals, and the rates for the individuals.
4. Records that identify the Equipment used by the Contractor and subcontractors in the performance of the Contract or subcontracts, including without limitation, Equipment lists, rental contracts and any records used in setting rental rates.

5. Invoices from vendors, rental agencies, and subcontractors.
6. Material quotes, invoices, purchase orders and requisitions.

G. Contracts with subcontractors and contracts with Material Suppliers, Suppliers and providers of rented equipment.

H. Contracts or documents of other arrangements with any Related Entity as defined in OAR 734-010-0040.

I. General ledger.

J. Trial Balance.

K. Financial statements (including without limitation the balance sheet, income statement, statement of cash flows, and financial statement notes).

L. Income tax returns.

M. All worksheets used to prepare bids or claims, or to establish the cost components for the Pay Items, including without limitation, the labor, benefits and insurance, Materials, Equipment, and subcontractors.

The following are examples, but not an exhaustive list, of records that would be included, if generated by the Contractor. If the Contractor generates such records, or equivalent records, they are included among the records subject to 00170.07.

1. Daily time sheets and supervisor's daily reports.
2. Collective bargaining agreements.
3. Earnings records.
4. Journal entries and supporting schedules.
5. Insurance, welfare, and benefits records.
6. Material cost distribution worksheet.
7. Subcontractors' and lower tier subcontractors' payment certificates.
8. Payroll and vendor's cancelled checks.
9. Cash disbursements journal.
10. All documents related to each and every claim together with all documents that support the amount of damages as to each claim.
11. Additional financial statements (including without limitation the balance sheet, income statement, statement of cash flows, and financial notes) preceding the execution of the Contract and following final payment of the Contract.
12. Depreciation records on all business Equipment maintained by the business involved, its accountant, or other Entity. (If a source other than depreciation records is used to develop cost for the Contractor's internal purposes in establishing the actual cost of owning and operating Equipment, all such other source documents.)

The Contractor shall maintain all fiscal records in material compliance with generally accepted accounting principles, or other accounting principles that are accepted accounting principles and practices for the subject industry and adequate for the nature of the Contractor's business, and in such a manner that providing a complete copy is neither unreasonably time consuming nor unreasonably burdensome for the Contractor or the Agency. Failure to maintain the records in this manner shall not be an excuse for not providing the records.

The Contractor shall include in its subcontracts, purchase orders, and all other written agreements, a provision requiring all subcontractors, Material Suppliers and providers of rented operated Equipment, (except non-DBE truck drivers), at all tiers to comply with 00170.07. The Contractor shall also require all subcontractors, Material Suppliers, and providers of rented operated Equipment, (except non-DBE truck drivers), at all tiers and Related Entities to include in their contracts, purchase orders, and all other written agreements, a provision requiring all lower tier subcontractors, Material Suppliers and providers of rented operated Equipment (except non-DBE truck drivers) to comply with 00170.07. The Material Suppliers to which this applies are those for Aggregates, Asphalt Cement Concrete, Portland Cement

Concrete and the supply and fabrication of structural steel items or Material Suppliers that provide Material quotes and Related Entities as defined in OAR 734-010-0400.

B. Access to Records - The Contractor shall provide the Engineer access to or a copy of all Contractor records upon request. A Project Manager's authority to request or access records is subject to OAR 734-010-0400(9). During the record retention period the Engineer, employees of the Agency, representatives of the Agency, or representatives of regulatory bodies or units of government may:

1. Inspect, examine and copy or be provided a copy of all Contractor records;
2. Audit the records, a Contract or the performance of a Contract;
3. Inspect, examine and audit the records when, in the Agency's sole discretion, the records may be helpful in the resolution of any claim, litigation, administrative proceeding or controversy arising out of or related to a Contract.

Reasons for access to audit, inspect, examine and copy records include without limitation, general auditing, reviewing claims, checking for collusive bidding, reviewing or checking payment of required wages, performance and contract compliance, workplace safety compliance, evaluating related Entities, environmental compliance, and qualifications for performance of the Contract, including the ability to perform and the integrity of the Contractor.

Where such records are stored in a computer or in other digital media, the Engineer may request, and the Contractor shall provide, a copy of the data files and such other information or access to software to allow the Engineer review of the records.

Nothing in 00170.07 is intended to operate as a waiver of the confidentiality of any communications privileged under the Oregon Evidence Code. Nothing in 00170.07 limits the records or documents that can be obtained by legal process.

C. Record Retention Period - The Contractor shall maintain the records and keep the records accessible and available at reasonable times and places for at least 3 years from the date of final payment under the Contract, or until the conclusion of all audits, litigation, administrative proceedings, disputes and claims arising out of or related to the Contract, whichever date is later.

D. Public Records Requests - If records provided under this section contain any information that may be considered exempt from disclosure as a trade secret under either ORS 192.501(2) or ORS 646.461(4), or under other grounds specified in Oregon Public Records Law, ORS 192.410 through ORS 192.505, the Contractor shall clearly designate on or with the records the portions which the Contractor claims are exempt from disclosure, along with a justification and citation to the authority relied upon. Entire records or documents should not be designated as a trade secret or otherwise exempt from disclosure. Only specific information within a record or document should be so designated.

To the extent allowed by the Oregon Public Records Law or other applicable law related to the disclosure of public records, Agency will not disclose records or portions of records the Contractor has designated as trade secrets to a third party, who is not a representative of the Agency, to the extent the records are exempt from disclosure as trade secrets under the Oregon Public Records Law or other applicable law, except to the extent Agency is ordered to disclose in accordance with the Oregon Public Records Law or by a court of competent jurisdiction. Application of the Oregon Public Records Law or other applicable law shall determine whether any record, document or information is actually exempt from disclosure.

In addition, in response to a public records request, the Agency will not produce or disclose records so identified as exempt by the Contractor to any person other than representatives of the Agency, and others with authorized access under 00170.07B, without providing the Contractor a copy of the public records request, unless:

The Contractor consents to such disclosure; or

Agency is prohibited by applicable law or court order from providing a copy of the public records request to the Contractor.

00170.10 Required Payments by Contractors - The Contractor shall comply with ORS 279C.505 and ORS 279C.515 during the term of the Contract.

A. Prompt Payment by Contractor for Labor and Materials - As required by ORS 279C.505, the Contractor shall:

1. Make payment promptly, as due, to all Entities supplying labor or Materials under the Contract;
2. Pay all contributions or amounts due the Industrial Accident Fund, whether from the Contractor or a subcontractor, incurred in the performance of the Contract;
3. Not permit any lien or claim to be filed against the State or any political subdivision thereof, on account of any labor or Material furnished in performance of the Contract; and
4. Pay to the Department of Revenue all sums withheld from employees according to ORS 316.167.

B. Prompt Payment by Contractor to First-Tier Subcontractor(s) - According to ORS 279C.580(3)(a), after the Contractor has determined and certified to the Agency that one or more of its Subcontractors has satisfactorily performed subcontracted Work, the Contractor may request payment from the Agency for the Work, and shall pay the Subcontractor(s) within 10 Calendar Days out of such amounts as the Agency has paid to the Contractor for the subcontracted Work.

C. Interest on Unpaid Amount - If the Contractor or a first-tier Subcontractor fails, neglects, or refuses to make payment to an Entity furnishing labor or Materials in connection with the Contract within 30 Days after the Contractor's receipt of payment, the Contractor or first-tier Subcontractor shall owe the Entity the amount due plus interest charges that begin at the end of the 10 day period within which payment is due under ORS 279C.580(3) and that end upon final payment, unless payment is subject to a good-faith dispute as defined in ORS 279C.580(5)(b). The rate of interest on the amount due shall be in accordance with ORS 279C.515(2). The amount of interest shall not be waived.

D. Agency's Payment of the Contractor's Prompt Payment Obligations - If the Contractor fails, neglects or refuses to make prompt payment of any invoice or other demand for payment for labor or services furnished to the Contractor or a Subcontractor by any Entity in connection with the Contract as such payment becomes due, the Agency may pay the Entity furnishing the labor or services and charge the amount of the payment against monies due or to become due the Contractor under the Contract. (The Agency has no obligation to pay these Entities, and Agency will not normally do so, but will refer them to the Contractor and the Contractor's Surety.)

The payment of a claim by the Agency in the manner authorized in this Subsection shall not relieve the Contractor or the Contractor's Surety from obligations with respect to any such claims.

E. Right to Complain to the Construction Contractors Board - If the Contractor or a subcontractor fails, neglects, or refuses to make payment to an Entity furnishing labor or Materials in connection with the Contract, the Entity may file a complaint with the Construction Contractors Board, unless payment is subject to a good-faith dispute as defined in ORS 279C.580(5)(b).

F. Notice of Claim Against Bond - An Entity (which by definition includes a natural person) claiming not to have been paid in full for labor or Materials supplied for the prosecution of the Work may have a right of action on the Contractor's Payment Bond as provided in ORS 279C.600 through ORS 279C.625.

The Commissioner of the Bureau of Labor and Industries (BOLI) may have a right of action on the Contractor's and Subcontractors' public works bonds and Payment Bonds for workers who have not been paid in full, as provided in ORS 279C.600 and ORS 279C.605.

00170.20 Public Works Bond – If the original Contract Amount is $100,000 or greater, then before starting work, or if the Contract Amount is amended to a Contract Amount $100,000 or greater, and unless otherwise exempt under ORS 279C.836(4), (7) – (9), the Contractor, shall file a public works bond with the Oregon Construction Contractors Board in the amount required by ORS 279C.836 [$30,000 (1970)] before starting or continuing Work on the project. Further, the Contractor shall then include in every subcontract a provision requiring the subcontractor to have a public works bond filed with the Oregon Construction Contractors Board in the amount required by ORS 279C.836 [$30,000 (1970)] before starting work, or if the Contract Amount is amended to $100,000 or above, before continuing Work on the project. ORS 279C830(3)(A,B). The Contractor shall verify subcontractors have filed a public works bond before the subcontractor begins Work.

00170.32 Protection of Navigable Waters - The Contractor shall comply with all applicable Laws, including without limitation the Federal River and Harbor Act of March 3, 1899 and its amendments.

The Contractor shall not interfere with waterway navigation or impair navigable depths or clearances, except as U.S. Coast Guard or Corps of Engineer permits allow.

00170.60 Safety, Health, and Sanitation Provisions - The Contractor shall comply with all Laws concerning safety, health, and sanitation standards. The Contractor shall not require workers to perform Work under conditions that are hazardous, dangerous, or unsanitary.

Workers exposed to traffic shall wear upper body garments or safety vests that are highly visible and meet the requirements of 00225.25.

Workers exposed to falling or flying objects or electrical shock shall wear hard hats.

Upon their presentation of proper credentials, the Contractor shall allow inspectors of the U.S. Occupational Safety and Health Administration (OSHA) and the Oregon Occupational Safety and Health Division (OR-OSHA) to inspect the Work and Project Site without delay and without an inspection warrant.

According to ORS 468A.715 and ORS 468A.720, the Contractor or a Subcontractor who performs Project Work involving asbestos abatement shall possess a valid DEQ asbestos abatement license.

00170.61 Industrial Accident Protection:

A. Workers' Compensation - The Contractor shall provide workers' compensation coverage for on-the-job injuries as required by 00170.70A.

00170.62 Labor Nondiscrimination - The Contractor shall comply with all Laws concerning equal employment opportunity, including without limitation those prohibiting discrimination because of race, religion, color, sex, disability, or national origin. It is a material term of this Contract that the Contractor certifies by entering into this Contract that the Contractor has a written policy and practice that meets the requirements described in Chapter 212, Oregon Laws 2017 (House Bill 3060) for preventing sexual harassment, sexual assault and discrimination against employees who are members of a protected class and that the Contractor shall maintain the policy and practice in force during the entire term of this contract.

00170.63 Payment for Medical Care - According to ORS 279C.530, the Contractor shall promptly, as due, make payment to any person, co-partnership, association or corporation furnishing medical, surgical and hospital care services or other needed care and attention, incident to sickness or injury, to the employees of

the Contractor, of all sums that the Contractor agrees to pay for the services and all moneys and sums that the Contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

00170.65 Minimum Wage and Overtime Rates for Public Works Projects:

A. General - The Contractor is responsible for investigating local labor conditions. The Agency does not imply that labor can be obtained at the minimum hourly wage rates specified in State or federal wage rate publications, and no increase in the Contract Amount will be made if wage rates paid are more than those listed.

B. State Prevailing Wage Requirements - The Contractor shall comply with the prevailing wage provisions of ORS 279C.800 through ORS 279C.870.

1. **Minimum Wage Rates –** The Bureau of Labor and Industries (BOLI) determines and publishes the existing State prevailing wage rates in the publication "Prevailing Wage Rates for Public Works Contracts in Oregon". The Contractor shall pay workers not less than the specified minimum hourly wage rate according to ORS 279C.838 and ORS 279C.840 and shall include this requirement in all subcontracts.

   See the Project Wage Rates page included with the Contract Booklet for additional information about which wage rates apply to the project and how to access the applicable wage rates

2. **Payroll and Certified Statements –** As required in ORS 279C.845, the Contractor and every subcontractor shall submit written certified statements to the Engineer on the form prescribed by the Commissioner of BOLI in OAR 839-025-0010 certifying compliance with wage payment requirements and accurately setting out the Contractor's or subcontractor's weekly payroll records for each worker employed upon the project.

   The Contractor and subcontractors shall preserve the certified statements for a period of 6 years from the date of completion of the Contract

3. **Additional Retainage:**

   a) **Agency –** As required in ORS 279C.845(7) the Agency will retain 25% of any amount earned by the Contractor on the project until the Contractor has filed the certified statements required in ORS 279C.845 and in FHWA Form 1273, if applicable. The Agency will pay to the Contractor the amount retained within 14 Days after the Contractor files the required certified statements, regardless of whether a subcontractor has failed to file certified statements.

   b) **Contractor –** As required in ORS 279C.845(8) the Contractor shall retain 25% of any amount earned by a first tier subcontractor on the project until the first tier subcontractor has filed with the Agency the certified statements required in ORS 279C.845 and in FHWA Form 1273, if applicable. Before paying any amount retained, the Contractor shall verify that the first-tier subcontractor has filed the certified statement. Within 14 Days after the first-tier subcontractor files the required certified statement the Contractor shall pay the first tier subcontractor any amount retained.

4. **Owner/Operator Data –** For a project funded by the FHWA, the Contractor shall furnish data to the Engineer for each owner/operator providing trucking services. Furnish the data before the time the services are performed and include without limitation for each owner/operator:

a) Drivers name;
b) Copy of driver's license;
c) Vehicle identification number;
d) Copy of vehicle registration;
e) Motor vehicle license plate number;
f) Motor Carrier Plate Number;
g) Copy of ODOT Motor Carrier 1A Permit; and Name of owner/operator from the side of the truck

C. State Overtime Requirements - As a condition of the Contract, the Contractor shall comply with the pertinent provisions of ORS 279.520 and 279C.540.

1. Maximum Hours of Labor and Overtime Pay - According to ORS 279C.540, no person shall be employed to perform Work under this Contract for more than 10 hours in any 1 Day, or 40 hours in any 1 week, except in cases of necessity, emergency, or where public policy absolutely requires it. In such instances, the Contractor shall pay the employee at least time and a half pay:

a) For all overtime in excess of 8 hours a day or 40 hours in any 1 week when the work week is 5 consecutive days, Monday through Friday; or
b) For all overtime in excess of 10 hours a day or 40 hours in any 1 week when the work week is 4 consecutive days, Monday through Friday; and
c) For all Work performed on Saturday and on any legal holiday specified in ORS 279C.540

For additional information on requirements for overtime and establishing a work schedule see OAR 839-025-0050 and OAR 839-025-0034.

2. Notice of Hours of Labor - The Contractor shall give written notice to employees of the number of hours per day and days per week the employees may be required to work. Provide the notice either at the time of hire or before commencement of work on this Contract, or by posting a notice in a location frequented by employees.

3. Exception - The maximum hours of labor and overtime requirements under ORS 279C.540 will not apply to the Contractor's Work under this Contract if the Contractor is a party to a collective bargaining agreement in effect with any labor organization. For a collective bargaining agreement to be in effect it shall be enforceable within the geographic area of the project, and its terms shall extend to workers who are working on the project (see OAR 839-025-0054).

D. State Time Limitation on Claim for Overtime - According to ORS 279C.545, any worker employed by the Contractor is foreclosed from the right to collect any overtime provided in ORS 279C.540 unless a claim for payment is filed with the Contractor within 90 Days from the completion of the contract, provided the Contractor posted and maintained a circular as specified in this provision. Accordingly, the Contractor shall:

1. Cause a circular, clearly printed in boldfaced 12-point type containing a copy of ORS 279C.545, to be posted in a prominent place alongside the door of the timekeeper's office or in a similar place which is readily available and freely visible to any or all workers employed to perform Work; and
2. Maintain such circular continuously posted from the inception to the completion of the Contract on which workers are or have been employed.

E. Additional Requirements When Federal Funds are Involved - When federal funds are involved, the following requirements shall apply in addition to the requirements of 00170.65(a) through 00170.65(d). The Contractor shall include these provisions in all subcontracts as well as ensure that all Subcontractors include these provisions in their lower tier subcontracts.

1. **FHWA Requirements** - For Federal-Aid projects, the Contractor shall comply with the provisions of FHWA Form 1273, "Required Contract Provisions Federal-Aid Construction Contracts".

2. **Minimum Wage Rates** - The Contractor shall pay each worker in each trade or occupation employed to perform any work under the contract not less than the existing State (BOLI) prevailing wage rate or the applicable federal prevailing wage rate required under the Davis-Bacon Act (40 U.S.C. 3141 et seq.), whichever is higher. The Contractor shall include this provision in all subcontracts.

   a) See the Project Wage Rates page included with the Contract Booklet for additional information about which wage rates apply to the project and how to access the applicable wage rates.
   b) The applicable Davis-Bacon and BOLI wage rates will be included in the Contract

3. **Payroll and Certified Statements –** In addition to providing the payroll information and certified statements required under ORS 279C.845 (see 00170.65B.2), the Contractor and every subcontractor shall submit written certified statements that also meet the requirements in Section IV of FHWA Form 1273 except the Contractor and every subcontractor shall preserve the certified statements for a period of 6 years from the date of completion of the Contract.

4. **Overtime** - With regard to overtime pay, the Contractor shall comply with the overtime provision affording the greatest compensation required under FHWA Form 1273 and ORS 279C.540.

00170.70 Insurance:

A. Insurance Coverages - The Contractor shall obtain, at its expense, and keep in effect during the term of the Contract, the insurance coverages in accordance with the Public Improvement Contract in the Contract Booklet and comply with all insurance provisions thereof. The insurance coverages shall also be maintained throughout the Contractor's Correction Period as defined in 00170.85B.

00170.71 Independent Contractor Status - The service or services to be rendered under this Contract are those of an independent contract. The Contractor is not an officer, employee, or agent of the Agency as those terms are used in ORS 30.265.

00170.74 Employee Drug Testing Program - As required by ORS 279C.505(2), the Contractor shall have in place, and maintain during the period of the Contract, an employee drug-testing program. The Agency retains the right to audit and/or monitor the program. On request by the Engineer, the Contractor shall furnish a copy of the employee drug-testing program.

00170.75 Oregon Tax Laws - The Contractor shall comply with Oregon tax laws as required by ORS 305.385.

00170.76 Subcontractors Nondiscrimination - The Contractor shall comply with ORS 279A.110 as to nondiscrimination as to relations with Subcontractors.

00170.78 Conflict of Interest - The Contractor shall not give or offer any gift, loan, or other thing of value to any member of the Agency's governing body or employee of the Agency in connection with the award or performance of any Contract.

The Contractor shall not rent, lease, or purchase Materials, supplies, or Equipment, with or through any Agency employee or member of the Agency's governing body.

No ex-employee of the Agency who has worked for the Agency on any phase of the Project within the prior 2 years may be employed by the Contractor to perform Work on the Project.

00170.79 Third Party Beneficiary - There are no third-party beneficiaries of the Contract, unless federal transportation funding is involved then the State of Oregon, the Oregon Transportation Commission and the Oregon Department of Transportation and their respective officers and members and employees, are third-party beneficiaries of the Contract.

00170.80 Responsibility for Damage to Work:

A. Responsibility for Damage in General - The Contractor shall perform Work, and furnish Materials and Equipment for incorporation into the Work, at the Contractor's own risk, until the entire Project has been completed and until Final Completion as determined by the Agency. The Contractor shall repair all damages to Work performed, Materials supplied, and Equipment incorporated into the Work, except as otherwise provided in this Section.

B. Repair of Damage to Work - Until Final Completion, the Contractor shall promptly rebuild, repair, restore, and make good damages to all portions of the permanent or temporary Work. The Contractor shall perform all repairs of damage to Work at no additional cost to the Agency, except for repairs necessitated by damage caused by:

1. Acts of God or Nature, as defined in Section 00110; or
2. Actions of governmental authorities

C. Vandalism and Theft - Vandalism includes damage to or destruction of Work or portions of Work that remain on the Project Site resulting from vandalism, criminal mischief, arson, or other criminal or illegal behavior.

The Contractor shall provide reasonable protection of the Work from vandalism until Final Completion.

Theft includes the loss of Work or portions of Work that are lost or stolen or otherwise unaccounted for from the Project Site or from Materials or fabrication locations. The Contractor shall remain solely responsible for all losses caused by theft, including without limitation theft that occurs in conjunction with vandalism.

00170.82 Responsibility for Damage to Property and Facilities:

A. In General - As used in this Subsection, the term "Contractor" shall include the Contractor's agents, Subcontractors, and all workers performing Work under the Contract; and the term "damage" shall include without limitation soiling or staining surfaces by tracking or splashing mud, asphalt, and other materials, as well as damage of a more serious nature.

The Contractor shall be solely responsible for damages arising from:

1. The Contractor's operations;
2. The Contractor's negligence, gross negligence, or intentional wrongful acts; and
3. The Contractor's failure to comply with any Contract provision.

The Agency may withhold funds due the Contractor or the Contractor's Surety until all lawsuits, actions, and claims for injuries or damages are resolved, and satisfactory evidence of resolution is furnished to the Agency.

B. Protection and Restoration of Agency Property and Facilities - The following requirements apply to highways, highway Structures and other improvements that are existing, under construction, or completed. The Contractor shall:

1. Provide adequate protection to avoid damaging Agency property and facilities;
2. Be responsible for damage to Agency property and facilities caused by or resulting from the Contractor's operations; and
3. Clean up and restore such damage by repair, rebuilding, replacement, or compensation, as determined by the Engineer.

C. Protection and Restoration of Non-Agency Property and Facilities - The Contractor shall determine the location of properties and facilities that could be damaged by the Contractor's operations, and shall protect them from damage. The Contractor shall protect monuments and property marks until the Engineer has referenced their location and authorized their removal. The Contractor shall restore property or facilities damaged by its operations to the condition that existed before the damage, at no additional compensation.

The Contractor shall provide temporary facilities when needed, e.g., to maintain normal service or as directed by the Engineer, until the required repair, rebuilding, or replacement is accomplished.

The Contractor shall protect specific service signs, e.g., business logos, and tourist-oriented directional signs (TODS) from damage, whether the signs are to remain in place or be placed on temporary supports. The Contractor shall repair or replace damaged signs at no cost to the Agency. Liquidated damages will be assessed against the Contractor in the amount of $200 per day for each sign out of service for more than 5 Calendar Days because of the Contractor's operations.

00170.85 Responsibility for Defective Work - The Contractor shall make good any defective Work, Materials or Equipment incorporated into the Work, according to the provisions of Section 00150.

A. Latent Defects - The Contractor shall remain liable for all latent defects resulting from causes other than fraud or gross mistakes that amount to fraud until the expiration of all applicable statutes of limitation and ultimate repose, the Performance Bond, Warranty Bond, or Correction Period, whichever expires last. The Contractor shall remain liable for all latent defects resulting from fraud or gross mistakes that amount to fraud regardless of when those latent defects may be discovered, and regardless of whether such discovery occurs outside any applicable statutes of limitation or ultimate repose or any applicable Performance Bond, Warranty Bond, or Correction Period.

B. Correction Period for Agency Projects - The Contractor shall warrant all Work and workmanship, including Changed Work, Additional Work, Incidental Work, On-Site Work, and Extra Work, and Materials and Equipment incorporated in the Work, for one year from the date of Second Notification (Correction Period), except that manufacturers', installers' or suppliers' warranties and extended warranties according to 00170.85C shall not be abridged. The Correction Period warranty described herein shall include extension of the Performance Bond for a period of one year from the date of Second Notification.

The Contractor shall be responsible for meeting the technical and performance Specifications required, making good the Work, and for all repairs of damage to the Work and other improvements, natural and artificial structures, systems, equipment, and vegetation caused by, or resulting in whole or in part from occurrences beginning during the warranty period and are the result of defects in Materials, Equipment, and workmanship. The Contractor shall be responsible for all costs associated with completing the repair of the defects and for associated Work including but not limited to permitting, mobilization, traffic control, erosion control, surface restoration, site cleanup and remediation caused by, or resulting in whole or in part from, defects in Materials, Equipment, or workmanship, and other Work determined by the Engineer to be necessary to complete the repair of the defects.

Within 10 Calendar Days of the Agency's written notice of defects, the Contractor, or the Contractor's Surety, shall vigorously and continuously correct and repair the defects and all related damage. If the Contractor or the Contractor's Surety fails to correct and repair the defects, the Agency may have the correction and repair done by others. The Contractor or Contractor's Surety shall promptly reimburse the Agency for all expenses incurred to correct and repair the defects.

In the event of an emergency, where delay could result in serious loss or damage, the Agency may make emergency corrections and repairs, without written notice. The Contractor or Contractor's Surety shall promptly reimburse the Agency for all expenses incurred to correct and repair the defects.

Corrections, repairs, replacements or changes shall be warranted for an additional 1 year period beginning on the date of the Agency's acceptance of the corrections, repairs, replacements or changes.

Without limiting the general applicability of other survival clauses under the Contract, this warranty provision shall survive expiration or termination of the Contract.

C. Manufacturer, Supplier or Installer Warranties and Guarantees:

1. **Manufacturer, Supplier or Installer Warranties** - For those Specification Sections referencing this 00170.85C.1 Subsection, the Contractor shall furnish Warranties from the Manufacturer, Supplier or Installer and signed by the respective authorized Representative.

   The warranty period will be specified in the applicable Specification Section for which it applies.

   The warranty period will begin on the date the Engineer issues Second Notification unless otherwise specified in the Contract.

   Corrections, repairs, replacements or changes shall be warranted for an additional Warranty period beginning on the date of the Agency's acceptance of the corrections, repairs, replacements or changes.

   When the Agency makes written notification to the Manufacturer, Supplier or Installer of failure of an item covered by this warranty, the warranty period will stop for the effected item or the portion of the effected item that failed, as applicable, until the required repairs or replacements are made and accepted. All repaired or replaced items shall meet current specifications, unless otherwise specified in the Contract, and will be warranted for the remaining warranty period.

   Warranty work shall be performed when weather permits. If, in the opinion of the Engineer, temporary repairs are necessary, the temporary repairs will be made by the Agency or an independent contractor at the Manufacturer's, Supplier's or Installer's expense. The Manufacturer, Supplier or Installer shall replace all temporary repairs at no additional cost to the Agency.

   The Manufacturer, Supplier or Installer shall provide all required traffic control during repair or replacement of failed items at no additional cost to the Agency.

2. **Trade Practice Guarantees** - For those Items installed on the Project that have customary trade practice guarantees, the Contractor shall furnish the guarantees to the Engineer at the completion of the Contract.

00170.89 Protection of Utility, Fire-control, and Railroad Property and Services; Repair; Roadway Restoration:

A. Protection of Utility, Fire-Control, and Railroad Property and Services; Coordination -The Contractor shall avoid damaging the properties of Utilities, Railroads, railways, and fire-control authorities

during performance of the Work. The Contractor shall cooperate with and facilitate the relocation or repair of all Utilities and Utility services, as required under 00150.50, and of Railroad and fire-control property and railways.

The Contractor shall conduct no activities of any kind around fire hydrants until the local fire-control authority has approved provisions for continued service.

The Contractor shall immediately notify any Utility, Railroad, or fire-control authority whose facilities have been damaged.

If an Entity has a valid permit from the proper authority to construct, reconstruct, or repair Utility, Railroad, or fire-control service in the Roadway, the Contractor shall allow the permit holder to perform the work.

B. Restoration of Roadway after Repair Work - The Contractor shall restore the Roadway to a condition at least equal to that which existed before the repair work addressed under this Subsection was performed, as directed by the Engineer. All restoration work required as a result of Contractor's failure to protect Utilities, Railroads, railways and fire-control facilities shall be at the Contractor's expense. Restoration which constitutes Extra Work will be paid as Extra Work.

00170.92 Fencing, Protecting Stock, and Safeguarding Excavations - The Contractor shall be responsible for loss, injury, or damage that results from its failure to restrain stock and persons.

A. At the Contractor's Expense - The Contractor shall restrain stock to lands on which they are confined using temporary fences or other adequate means. The Contractor shall provide adequate temporary fences or other protection around excavations to prevent animals and unauthorized persons from entering.

The Contractor shall repair, at Contractor's expense and to the Engineer's satisfaction, fences damaged by the Contractor's operations and the operations of the Contractor's agents, employees and Subcontractors.

B. At the Agency's Expense - The Contractor shall construct fences, or move and reconstruct fences, as shown on the Contract Documents or as directed by the Engineer. The Contractor shall tear down and remove fencing within the Right-of-Way when no longer needed, as part of the removal Work described in and paid for according to Section 00310.

00170.93 Trespass - The Contractor shall be responsible for its own, its agents' and employees', and its Subcontractors' trespass or encroachment upon, or damage to, property during performance of the Contract.

00170.94 Use of Explosives - The Contractor shall comply with all Laws pertaining to the use of explosives. The Contractor shall notify anyone having facilities near the Contractor's operations of Contractor's intended use or storage of explosives. The Contractor shall be responsible for all damage resulting from its own, its agents' and employees', and its Subcontractors' use of explosives. (see 00330.41(e) and Section 00335).

Section 00180 - Prosecution and Progress

00180.00 Scope - This Section consists of requirements for assignment of the Contract, subcontracting, time for performance, Contract responsibility, suspensions, terminations, and related provisions.

00180.05 Assignment/Delegation of Contract - Unless the Agency gives prior written consent, the Contractor shall not assign, delegate, sell, or transfer to any Entity, or otherwise dispose of any Contract rights or obligations, including without limitation:

A. The power to execute or perform the Contract; or
B. Any of its right, title or interest in the Contract.

Any attempted assignment, delegation, or disposition without prior Agency consent shall be void.

Such Agency consent will not normally be given except for the assignment of funds due under the Contract, as provided in 00180.06.

If written Agency consent is given to assign, delegate, or otherwise dispose of any Contract rights or obligations, it shall not relieve the Contractor or its Surety of any part of their responsibility under the Contract.

00180.06 Assignment of Funds Due under the Contract - Assignment of funds due or to become due under the Contract to the Contractor will not be permitted unless:

A. The assignment request is made on the form acceptable to the Agency;
B. The Contractor secures the written consent of the Contractor's Surety to the assignment; and
C. The Engineer approves the assignment.

00180.10 Responsibility for Contract - The Contractor shall direct and coordinate the operations of its employees, Subcontractors and agents performing Work, and see that the Engineer's orders are carried out promptly. The Contractor's failure to direct, supervise and control its employees, Subcontractors and agents performing Work will result in one or more of the following actions, or other actions as the Engineer deems appropriate:

A. Suspension of the Work;
B. Withholding of Contract payments, as necessary to protect the Agency;
C. Ordering removal of individuals from the Project Site; or
D. Termination of the Contract.

Action by the Agency under this provision will not prejudice any other remedy it may have.

00180.15 Agency's Right to Do Work at Contractor's Expense - Except as otherwise provided in 00150.75 and 00220.60, if the Contractor neglects to prosecute the Work properly or fails to perform any provision of the Contract, the Agency may, after 2 Calendar Days' written notice, correct the deficiencies at the Contractor's expense. In situations where the Engineer reasonably believes there is danger to life or property, the Agency may immediately and without notice correct the deficiencies at the Contractor's expense.

Action by the Agency under this provision will not prejudice any other remedy it may have.

00180.20 Subcontracting Limitations:

A. General - The Contractor's own organization shall perform Work amounting to at least the percentage of the original Contract Amount as indicated in the Special Provisions. The value of subcontracted Work is the full compensation to be paid to the Subcontractor(s) for all pay items in the Subcontract(s).

B. Own Organization - The term "own organization", as used in Section 00180, includes only employees of the Contractor, Equipment owned or rented by the Contractor, Incidental rental of operated Equipment, and Materials and Equipment to be incorporated into the Work purchased or produced by the Contractor.

C. Rental of Operated Equipment - The Agency will not allow a Disadvantaged Business Enterprise (DBE) firm to provide services without a subcontract covering all Work to be performed by the DBE firm.

00180.21 Subcontracting:

A. Substitution of Disclosed Subcontractors - The Contractor may only substitute a previously disclosed first-tier Subcontractor according to the provisions of ORS 279C.585. The Contractor shall provide the Engineer with a written notification that identifies the name of the proposed new Subcontractor and the reason for the substitution. Authorized reasons for substitution are limited to the following circumstances (see ORS 279C.585(1) through ORS 279C.585(10)):

1. The disclosed Subcontractor fails or refuses to execute a written contract that is reasonably based either upon the Project Plans and Specifications, or the terms of the Subcontractor's written Bid, after having had a reasonable opportunity to do so;
2. The disclosed Subcontractor becomes bankrupt or insolvent;
3. The disclosed Subcontractor fails or refuses to perform the contract;
4. The disclosed Subcontractor fails or refuses to meet the bond requirements of the prime Contractor that had been identified prior to the Bid submittal;
5. The Contractor demonstrates to the Agency that the Subcontractor was disclosed as the result of an inadvertent clerical error;
6. The disclosed Subcontractor does not hold a license from the Construction Contractors Board and is required to be licensed by the board;
7. The Contractor determines that the Work performed by the disclosed Subcontractor is not in substantial compliance with the Plans and Specifications, or that the Subcontractor is substantially delaying or disrupting the progress of the Work;
8. The disclosed Subcontractor is ineligible to work on a public improvement according to the applicable statutory provisions;
9. The substitution is for "good cause" as defined by State Construction Contractors Board rule; or
10. The substitution is reasonably based on the Contract alternates chosen by the Agency.

B. Terms of Subcontracts - Subcontracts shall provide that work performed under the subcontract shall be conducted and performed according to the terms of the Contract. Compliance with 00170.07 is required. All subcontracts, including Contractor's with the first-tier Subcontractors and those of the first-tier Subcontractors with their subcontractors, and any other lower tier subcontracts shall contain a clause or condition that if the Contractor or a subcontractor fails, neglects, or refuses to make payment to an Entity furnishing labor or Materials in connection with the Contract, the Entity may file a complaint with the Construction Contractors Board, unless payment is subject to a good-faith dispute as defined in ORS 279C.580. Additionally, according to the provisions of ORS 279C.580, subcontracts shall include:

1. A payment clause that obligates the Contractor to pay the first-tier Subcontractor for satisfactory performance under the subcontract within 10 Calendar Days out of amounts the Agency pays to the Contractor under the Contract.
2. A clause that requires the Contractor to provide the first-tier Subcontractor with a standard form that the first-tier Subcontractor may use as an application for payment or as another method by which the Subcontractor may claim a payment due from the Contractor.
3. A clause that requires the Contractor, except as otherwise provided in this subsection, to use the same form and regular administrative procedures for processing payments during the entire term of the subcontract. The Contractor may change the form or the regular administrative procedures the Contractor uses for processing payments if the Contractor:

   a) Notifies the Subcontractor in writing at least 45 Calendar days before the date on which the Contractor makes the change; and
   b) Includes with the written notice a copy of the new or changed form or a description of the new or changed procedure.

4. An interest penalty clause that obligates the Contractor, if the Contractor does not pay the first-tier Subcontractor within 30 Calendar Days after receiving payment from the Agency, to pay the first-tier Subcontractor an interest penalty on amounts due in each payment the Contractor does not make in accordance with the payment clause included in the subcontract under 00180.21B.1. The Contractor or first-tier Subcontractor is not obligated to pay an interest penalty if the only reason that the Contractor or first-tier Subcontractor did not make payment when payment was due is that the Contractor or first-tier Subcontractor did not receive payment from the Agency or the Contractor when payment was due. The interest penalty applies to the period that begins on the day after the required payment date and ends on the date on which the amount due is paid; and shall be computed at the rate specified in 00170.10C.

5. A clause that requires the Contractor's first-tier Subcontractor to include a payment clause and an interest penalty clause that conform to the standards of ORS 279C.580 (see 00180.21B.1 and 00180.21B.4) in each of the first-tier Subcontractor's subcontracts and to require each of the first-tier Subcontractor's subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or Material supplier.

   These payment clauses shall require the Contractor to return all retainage withheld from the Subcontractor, whether held by the Contractor or the Agency, as specified in 00195.50D.

   As required by ORS 279C.800 through ORS 279C.870, subcontracts shall include:

   a) A provision requiring the subcontractor to have a public works bond filed with the Construction Contractors Board before starting Work on the Project, unless exempt.
   b) A provision requiring that the workers shall be paid not less than the specified minimum hourly rate of wage.

C. Contractor's Responsibilities - Whether or not stated in the subcontract agreement itself, the Contractor shall remain solely responsible for administration of the subcontract, including but not limited to:

1. Performance of subcontracted Work;
2. Progress of subcontracted Work;
3. Payments for accepted subcontracted Work; and
4. Disputes and claims for additional compensation regarding subcontracted Work.

It shall be the direct responsibility of the Contractor to ensure that each and every Subcontractor will not only be issued a complete and current set of Plans and Specifications, but also that these Plans and Specifications are on the project site and in use by the Subcontractor when it is performing its portion of the project.

Subcontracted Work shall not create a contract between the Agency and the Subcontractor, will not convey to the Subcontractor any rights against the Agency, and will not relieve the Contractor or the Contractor's Surety of any of their responsibilities under the Contract.

D. Failure to Comply - Failure to comply with 00180.21 will be cause for the Engineer to take action reasonably necessary to obtain compliance. This action may include, but is not limited to:

1. Suspension of the Work;
2. Withholding of Contract payments as necessary to protect the Agency; and
3. Termination of the Contract.

00180.22 Payments to Subcontractors and Agents of the Contractor - To the extent practicable, the Contractor shall pay in the same units and on the same basis of measurement as listed in the Schedule of Items for subcontracted Work or other Work not done by the Contractor's own organization. The Agency will not be responsible for any overpayment or losses resulting from overpayment by the Contractor to Subcontractors and to its other agents, work providers, service providers, and trucking service providers.

If requested in writing by a first-tier Subcontractor, the Contractor shall send to the Subcontractor, within 10 Calendar Days of receiving the request, a copy of that portion of any invoice or request for payment submitted to the Agency, or pay document provided by the Agency to the Contractor, specifically related to any labor, Equipment, or Materials supplied by the first-tier Subcontractor.

00180.30 Materials, Equipment, and Work Force - The Contractor shall furnish suitable and sufficient Materials, Equipment, and personnel to properly prosecute and complete the Work. The Contractor shall use only Equipment of adequate size and condition to meet the requirements of the Work and Specifications, and to produce a satisfactory quality of Work. Upon receipt of the Engineer's written order, the Contractor shall immediately remove, and not use again on the Project without the Engineer's prior written approval, Equipment that, in the Engineer's opinion, fails to meet Specifications or produce a satisfactory product or result.

The work force shall be trained and experienced for the Work to be performed. Upon receipt of the Engineer's written order, the Contractor shall immediately remove from the Project Site, and shall not employ again on the Project without the Engineer's prior written approval, any supervisor or employee of the Contractor or any subcontractor who, in the Engineer's opinion, does not perform satisfactory Work or whose conduct interferes with the progress of the Work.

If the Contractor fails to remove Equipment or persons as ordered, or fails to furnish suitable and sufficient Materials, Equipment and personnel for the proper prosecution of the Work, the Engineer may suspend the Work by written notice until such orders are complied with and such deficiencies are corrected, or the Engineer may terminate the Contract under the provisions of 00180.90A.

00180.31 Required Materials, Equipment, and Methods - The Engineer's decisions under this Section are final.

A. General - When the Equipment and methods to be used are not specified in the Contract, any Equipment or methods that accomplish the Work as required by the Contract will be permitted.

When the Contract specifies certain Equipment or methods, the Contractor shall use the Equipment or methods specified unless otherwise authorized by the Engineer in writing.

B. Substitution of Materials and Equipment to be Incorporated into the Work - After execution of the Contract, the Engineer may approve substitution of Materials and Equipment to be incorporated into the Work as follows:

1. **Reasons for Substitution** - The Engineer will consider substitution only if:
   a) In the judgement of the Engineer, the proposed Materials or Equipment are equal to or superior to the specified items in construction, efficiency and utility; or
   b) Due to reasons beyond the control of the Contractor, the specified Materials or Equipment cannot be delivered to the Project in sufficient time to complete the Work in proper sequence.

2. **Submittal of Request** - The Contractor shall submit requests for substitution to the Engineer, including manufacturers' brochures and other information needed to verify equality of the proposed item(s).

C. Substitution of Equipment Specified to Perform Work - The Agency encourages development of new or improved Equipment and innovative use of Equipment. When the Specifications require Equipment of a particular size or type to be used to perform certain portions of the Work, the Contractor may submit a request to the Engineer to use Equipment of a different size or type. The request will not be considered as a cost reduction proposal under 00140.70. The request shall:

1. Be in writing and include a full description of the Equipment proposed and its intended use;
2. Include the reasons for requesting the substitution; and
3. Include evidence, obtained at the Contractor's expense and satisfactory to the Engineer, that the proposed Equipment is capable of functioning as well as or better than the specified Equipment.

The Engineer will consider the Contractor's request and will provide a written response to the Contractor, either permitting or denying use of the proposed Equipment.

Permission may be granted on a trial basis to test the quality of Work actually produced, subject to the following:

1. There will be no cost to the Agency, either in Contract Amount or in Contract Time;
2. The permission may be withdrawn by the Engineer at any time if, in the Engineer's opinion, the Equipment is not performing in all respects equivalent to the Equipment specified in the Contract;
3. If permission is withdrawn, the Contractor shall perform the remaining Work with the originally-specified Equipment; and
4. The Contractor shall remove and replace nonspecification Work resulting from the use of the Contractor's proposed Equipment, or otherwise correct it as the Engineer directs, at no additional compensation.

D. Substitution of Methods - The Agency encourages development of new, improved, and innovative construction methods. When the Plans or Specifications require a certain construction method for a portion of the Work, the Contractor may submit a request for a change by following the provisions of 00140.70, "Cost Reduction Proposals".

00180.40 Limitation of Operations:

A. In General - The Contractor shall comply with all Contract provisions and shall:

1. Conduct the Work at all times so as to cause the least interference with traffic, and

2. Not begin Work that may allow damage to Work already started.

B. On-Site Work - The Contractor shall not begin On-Site Work until the Contractor has:

1. Received Notice to Proceed;
2. Filed with the Construction Contractors Board the public works bond as required in 00170.20;
3. An approved Project Work schedule;
4. An approved Traffic Control Plan;
5. An approved Spill Prevention Control and Countermeasure Plan, if required;
6. An approved Pollution Control Plan;
7. An approved Erosion and Sediment Control Plan;
8. Met with the Engineer at the required preconstruction conference; and
9. Assembled all Materials, Equipment, and labor on the Project Site, or has reasonably assured that they will arrive on the Project Site, so the Work can proceed according to the Project Work schedule.

00180.41 Project Work Schedules - The Contractor shall submit a Project Work schedule meeting the requirements of this Subsection to the Engineer. The Project Work schedule is intended to identify the sequencing of activities and time required for prosecution of the Work. The schedule is used to plan, coordinate, and control the progress of construction. Therefore, the Project Work schedule shall provide for orderly, timely, and efficient prosecution of the Work, and shall contain sufficient detail to enable both the Contractor and the Engineer to plan, coordinate, analyze, document, and control their respective Contract responsibilities. Sufficient detail shall also include all required double shifts, overtime work, or combination of both necessary to complete Contract Work within the Contract Time.

The Contractor shall submit a schedule or plan for each activity that is behind schedule showing, in sufficient detail, the proposed corrective action to complete Contract Work within the Contract Time. Sufficient detail shall include all required double shifts, overtime work, or combination of both.

Contractor's activity related to developing, furnishing, monitoring, and updating these required schedules is Incidental.

The Contractor shall submit a supplemental "look ahead" Project Work schedule to the Engineer prior to or at each Project progress meeting. The "look ahead" Project Work schedule is supplemental to the Type A, B, or C schedule specified below. The supplemental "look ahead" Project Work schedule shall:

- Identify the sequencing of activities and time required for prosecution of the Work.
- Provide for orderly, timely, and efficient prosecution of the Work.
- Contain sufficient detail to enable both the Contractor and the Engineer to plan, coordinate, analyze, document, and control their respective Contract responsibilities.

The supplemental "look ahead" Project Work schedule shall be written in common terminology and show the planned Work activities broken down into logical, separate activities by area, stage, and size and include the following information:

- The resources the Contractor, subcontractors, or services will use.
- The locations of each activity that will be done including the limits of the work by mile posts, stations, or other indicators.
- The time frames of each activity by Calendar Days, shifts, and hours.
- All anticipated shoulder, lane, and road closures.

At a minimum, the Contractor shall prepare a bar chart that:

- Shows at least 3 weeks of activity including the week the bar chart is issued.
- Uses a largest time scale unit of 1 Calendar Day. Smaller time scale units may be used if needed.
- Is appropriate to the activities.
- Identifies each Calendar Day by month and day.

Include the Contract name, Contract number, Contractor's name, and date of issue on each page of the bar chart.

The Contractor shall submit the supplemental "look ahead" Project Work schedule starting at First Notification and continuing until Second Notification has been issued and all punch list items and final trimming and clean-up has been completed. The Contractor shall meet with the Engineer to review the supplemental "look ahead" Project Work schedule. If the Engineer or the Contractor determines that the current supplemental "look ahead" Project Work schedule requires changes or additions, either notations can be made on the current schedule or the Engineer may require the submittal of a revised supplemental "look ahead" Project Work schedule. Review of the current and subsequent supplemental "look ahead" Project Work schedules does not relieve the Contractor of responsibility for timely and efficient execution of the Contract.

One of the following Type "A", "B", or "C" schedules will be required under the Contract. The type of schedule will be identified in the Special Provisions.

A. Type "A" Schedule - When a Type "A" schedule is required, the Contractor shall do the following:

1. **Schedule** - Calendar Days prior to the preconstruction conference, the Contractor shall provide to the Engineer four copies of a Project Work schedule, including a time-scaled bar chart and narrative, showing:

    a) Expected beginning and completion dates of each activity, including all staging; and
    b) Elements of the Traffic Control Plan as required under 00225.05.

    The schedule shall show detailed Work activities as follows:

    a) Construction activities;
    b) The time needed for completion of the utility relocation work;
    c) Submittal and approval of Materials samples and shop drawings;
    d) Fabrication, installation, and testing of special Materials and Equipment; and
    e) Duration of Work, including completion times of all stages and their sub phases.

    For each activity, the Project Work schedule shall list the following information:

    a) A description in common terminology;
    b) The quantity of Work, where appropriate, in common units of measure;
    c) The activity duration in Calendar Days; and
    d) Scheduled start, completion, and time frame shown graphically using a time-scaled bar chart.

    The schedule shall show the Work broken down into logical, separate activities by area, stage, or size. The duration of each activity shall be verifiable by manpower and Equipment allocation, in common units of measure, or by delivery dates.

    The bar chart shall be prepared as follows:

    a) The length of bar shall represent the number of workdays scheduled.

b) The time scale shall be appropriate for the duration of the Contract.
c) The time scale shall be in Calendar Days.
d) The smallest unit shown shall be 1 Calendar Day.
e) The first day and midpoint of each month shall be identified by date.
f) Distinct symbols shall be used to denote multiple shift, holiday, and weekend Work.

Each page of the bar chart shall include a title block showing the Contract name and number, Contractor's name, date of original schedule, and all update dates; and a legend containing the symbols used, their definitions, and the time scale, shown graphically. To ensure readability the bar chart shall be drawn on a reasonable size of paper up to a maximum of 36 inch by 36 inch, using multiple sheets when needed.

Within 7 Calendar Days after the preconstruction conference, the Engineer and the Contractor shall meet to review the Project Work schedule as submitted. The Engineer will review the schedule for compliance with all Contract Time limitations and other restraints. Review of this and subsequent schedules by the Engineer shall not relieve the Contractor of responsibility for timely and efficient execution of the Contract. Within 10 Calendar Days of this meeting, the Contractor shall resubmit to the Engineer four copies of the Project Work schedule, including required revisions.

2. **Review by the Engineer** - The Project Work schedule may need revision as the Work progresses. Therefore, the Contractor shall periodically review the Project Work schedule and progress of the Work with the Engineer. If the Engineer or the Contractor determines that the Project Work schedule no longer represents the Contractor's own plans or expected time for the Work, a meeting shall be held between the Engineer and the Contractor. At this meeting, the Contractor and the Engineer shall review Project events and any changes for their effect on the Project Work schedule.

   The Contractor shall compile an updated Project Work schedule incorporating any changes to the Project completion time(s). The bar chart shall reflect the updated information. The Contractor shall submit four copies of the updated Project Work schedule to the Engineer within 7 Calendar Days after the meeting. The report shall include without limitation the following:

   a) Sufficient narrative to describe the past progress, anticipated activities, and stage Work;
   b) A description of any current and expected changes or delaying factors and their effect on the construction schedule; and
   c) Proposed corrective actions.

B. Type "B" Schedule - When a Type "B Schedule is required, the Contractor shall do the following:

1. **Initial Schedule** - Calendar Days prior to the preconstruction conference, the Contractor shall provide to the Engineer four copies of a time-scaled bar chart Project Work schedule showing:

   a) Expected beginning and completion date of each activity, including all staging; and
   b) Elements of the Traffic Control Plan as required under 00225.05.

   The initial schedule shall show all Work intended for the first 60 Days of the Contract to the level of detail described in (2) below, and shall show the priority and interdependence (sequencing and network logic) of all major segments of the remainder of the Work.

2. **Detailed Schedule** - In addition to the above requirements, and within 30 Calendar Days after the Notice to Proceed, the Contractor shall provide the Engineer one digital copy and four paper copies of a detailed time-scaled bar chart Project Work schedule indicating the critical course of the Work. The digital copy shall be compatible with MS Project 2003, Primavera P3, SureTrak Project Manager 3.0, or another scheduling program approved by the Engineer.

Detailed work schedule activities shall include the following:

a) Construction activities;
b) The time needed for completion of the utility relocation work;
c) Submittal and approval of Material samples and shop drawings;
d) Procurement of critical Materials;
e) Fabrication, installation, and testing of special Material and Equipment; and
f) Duration of Work, including completion times of all stages and their sub phases.

For each activity, the Project Work schedule shall list the following information:

a) A description in common terminology;
b) The quantity of Work, where appropriate, in common units of measure;
c) The activity duration in normal workdays; and
d) Scheduled start, completion, and time frame shown graphically using a time-scaled bar chart.

The schedule shall show the Work broken down into logical, separate activities by area, stage, or size. The duration of each activity shall be verifiable by manpower and Equipment allocation, in common units of measure, or by delivery dates.

The bar chart shall be prepared as follows:

a) The length of bar shall represent the number of normal workdays scheduled.
b) The time scale shall be appropriate for the duration of the Contract.
c) The time scale shall be in normal workdays (every day except Saturday, Sunday, and legal holidays).
d) The smallest unit shown shall be 1 Calendar Day.
e) The first day and midpoint of each month shall be identified by date.
f) Distinct symbols shall be used to denote multiple shift, holiday, and weekend Work.

The bar chart drawing(s) shall include a title block showing the Contract name and number, Contractor's name, date of original schedule, and all update dates; and a legend containing the symbols used, their definitions, and the time scale, shown graphically. To ensure readability the bar chart shall be drawn on a reasonable size of paper up to a maximum of 36 inch x 36 inch, using multiple sheets when needed.

Within 10 Calendar Days after submission of the Project schedule the Engineer and the Contractor shall meet to review the Project schedule as submitted. Within 10 Days of the review meeting, the Contractor shall resubmit to the Engineer one digital and four paper copies of the Project schedule, including required revisions.

The accepted Project schedule shall represent all Work, as well as the planned sequence and time for the Work. Review of this and subsequent schedules by the Engineer shall not relieve the Contractor of responsibility for timely and efficient execution of the Contract.

3. **Review and Reporting** - The Project Work schedule may require revision as the Work progresses. Therefore, the Contractor shall monitor and when necessary revise the Project Work schedule as follows:

   a) Review with the Engineer - The Contractor shall perform ongoing review of the Project Work schedule and progress of the Work with the Engineer. If the Engineer or the Contractor determines that the Project Work schedule no longer represents the Contractor's own plans or expected time for the Work, a meeting shall be held between the Engineer and the Contractor. At this meeting, the Contractor and the Engineer shall review Project events and any changes for

their effect on the Project Work schedule. After any necessary action has been agreed upon, the Contractor shall make required changes to the Project Work schedule.

The Contractor shall collect information on all activities worked on or scheduled to be worked on during the previous report period, including shop drawings, Material procurement, and Contract Change Orders that have been issued. Information shall include commencement and completion dates on activities started or completed, or if still in progress, the remaining time duration.

The Contractor shall develop detailed sub-networks to incorporate changes, Additional Work, and Extra Work into the Project Work schedule. Detailed sub-networks shall include all necessary activities and logic connectors to describe the Work and all restrictions on it. The restraints shall include those activities from the Project Work schedule that initiated the sub-network as well as those restrained by it.

The Contractor shall evaluate this information and compare it with the Contractor's project schedule. If necessary, the Contractor shall make an updated bar chart schedule to incorporate the effect changes may have on the Project completion time(s). For any activity that has started, the Contractor shall add a symbol to show the actual date the activity started and the number of normal workdays remaining until completion. For activities that are finished, a symbol shall be added to show the actual date. The Contractor shall submit one digital and four paper copies of the updated bar chart to the Engineer within 7 Days after the progress meeting, along with a progress report as required by (b) below.

b) Progress Report - The Contractor shall submit a progress report to the Engineer each month. The report shall include the following:

1) Sufficient narrative to describe the past progress, anticipated activities, and stage Work;
2) A description of any current and expected changes or delaying factors and their effect on the construction schedule; and
3) Proposed corrective actions.

C. Type "C" Schedule - When a Type "C" Schedule is required, the Contractor shall do the following:

1. Initial Schedule - 10 Calendar Days prior to the preconstruction conference, the Contractor shall provide to the Engineer one digital copy and four paper copies of a time-scaled bar chart Project Work schedule. The digital copy shall be compatible with MS Project 2003, Primavera P3, SureTrak Project Manager 3.0, or another scheduling program approved by the Engineer. The initial schedule shall show:

a) The expected beginning and completion date of each activity, including all stages and phases;
b) The time needed for completion of the utility relocation work; and
c) The elements of the traffic control plan as required under 00225.05.

A logic diagram and a time-scaled bar chart will be acceptable in lieu of a time-scaled logic diagram.

The initial schedule shall show all Work intended for the first 60 Days of the Contract to the level of detail described in (2) below, and shall show the priority and interdependence (sequencing and network logic) of all major segments of the remainder of the Work.

2. Detailed Project Work Schedule - In addition to the above requirements, and within 30 Calendar Days after First Notification, the Contractor shall provide the Engineer one digital copy and four paper copies of a detailed time-scaled critical path method (CPM) network Project Work schedule and computer analysis printout, both clearly indicating the critical path. The digital copy shall be

compatible with MS Project 2003, Primavera P3, SureTrak Project Manager 3.0, or another scheduling program approved by the Engineer. The first submitted detailed time-scaled critical path method (CPM) network Project Work schedule shall also contain a listing of the quantity of Work for each activity, when appropriate, in common units of measure.

Detailed work schedule activities shall include the following:

a) Construction activities;
b) Any limitations of operation specified in 00180.40;
c) The time needed for completion of the utility relocation work;
d) Implementation of TCP for each stage and phase;
e) Submittal and approval of Material samples, mix designs, and shop drawings;
f) Agency timeframes to process and return Contractor submitted plans, working drawings, equipment lists and other submittals;
g) Procurement of critical Materials;
h) Fabrication, installation, and testing of special Material and Equipment;
i) Duration of Work, including completion times of all stages and their sub-phases; and
j) Specified cure times for all concrete elements.

The activities shall be separately identifiable by coding or use of sub-networks or both. The duration of each activity shall be verifiable and consistent with the description in the Project narrative required in (3) below.

Detailed sub-networks shall include all necessary activities and logic connectors to describe the Work and all restrictions on it. In the restraints, include those activities from any Project Work schedule that initiated the sub-network as well as those restrained by it.

The time scale used on the Contractor's detailed time-scaled critical path method (CPM) network Project Work schedule shall be appropriate for the duration of the activities and the Project duration. The time scale shall be in normal workdays, defined as every day except Saturday, Sunday and legal holidays, with calendar dates identified no less than the first and midpoint of each calendar month. The smallest unit shown shall be 1 Day. The network shall show the length of the activity or part scaled to accurately represent the number of normal workdays scheduled. Distinct symbols or graphics shall be used to show multiple shift, holiday, or weekend work.

The schedule network drawing(s) shall include a title block showing the Contract name and number, Contractor's name, date of original schedule, and all update dates; and a legend containing the symbols used, their definitions, and the time scale, shown graphically. To ensure readability the drawings shall be on a reasonable size of paper up to a maximum of 36 inch x 36 inch, using multiple sheets when needed.

The Contractor shall include a tabulation of each activity in the computer mathematical analysis of the network diagram. The following information represents the minimum required for each activity:

a) Event (node) number(s) for each activity;
b) Maintain event (node) numbers throughout the Project;
c) Activity description;
d) Original duration of activities (in normal workdays);
e) Estimated remaining duration of activities (in normal workdays);
f) Earliest start date and actual start date (by calendar date);
g) Earliest finish date and actual finish date (by calendar date);
h) Latest start date (by calendar date);
i) Latest finish date (by calendar date); and

j) Slack or float time (in workdays).

Computer print-outs shall consist of at least a node sort and an "early start/total-float" sort.

Within 14 Calendar Days after submission of the detailed time-scaled critical path method (CPM) network Project Work schedule, the Engineer and the Contractor shall meet to review the detailed time-scaled critical path method (CPM) network Project Work schedule as submitted. Within 7 Calendar Days of the meeting, the Contractor shall resubmit to the Engineer one digital and four paper copies of the detailed time-scaled critical path method (CPM) network Project Work schedule, including required revisions.

This first accepted detailed time-scaled critical path method (CPM) network Project Work schedule, also called the accepted Project Work schedule, shall represent all Work, as well as the planned sequence and time for the Work. Review and acceptance of any Project Work schedules and Project narratives by the Engineer shall not relieve the Contractor of responsibility for timely and efficient execution of the Contract.

3. **Project Narrative** - In addition to the above requirements, and within 30 Calendar Days after First Notification, the Contractor shall provide to the Engineer a final written Project narrative that discusses the planning, coordinating, scheduling and resourcing of the Work. The Project narrative shall include the following written description:

a) Plans for staging the project.
b) All critical activities.
c) All near critical activities defined as those with less than 30 Days of float.
d) All subcontractor activities that are critical, near critical, and those that are greater than two weeks in duration.
e) Labor resourcing, by stage and phase, to include the number of crews, average crew size and planned night/weekend shifts including that of subcontractors.
f) Equipment allocation, by stage and phase to include mobilization, demobilization and planned activities including that of subcontractors.
g) Notifications required under the Contract during each stage and phase which may include but is not limited to road closures, lanes closures, night work, cold plane pavement removal, and pile driving.
h) Provide discussion on addressing reasonably predictable weather conditions and their impact on all weather sensitive activities. Also, provide discussion on other weather limitations that may affect the project schedule.
i) Submittal and approval of material samples, mix designs, and shop drawings.
j) Procurement of critical materials.
k) Plans for dealing with "unique" construction items.
l) Coordination of utilities and any immediate concerns for impacts/delays.
m) Constructability issues.
n) Cost Reduction Proposals and/or immediate requests for changes to the specifications.
o) Concerns/issues that need to be addressed within the first 90 Days following First Notification.

The accepted Project narrative shall represent all critical and near critical Work, as well as the planned sequence and time for the Work.

4. **Review and Reporting** - The Project Work schedule may require revision as the Work progresses. Therefore, the Contractor shall monitor and when necessary revise the Project Work schedule as follows:

a) **Review with the Engineer** - The Contractor shall perform ongoing review of the accepted Project Work schedule and progress of the Work with the Engineer. If the Engineer or the Contractor determines that the accepted Project Work schedule no longer represents the Contractor's own plans or expected time for the Work, a meeting shall be held between the Engineer and the Contractor. At this meeting, the Contractor and the Engineer shall review Project events and any changes for their effect on the accepted Project Work schedule. After any necessary action has been agreed upon, the Contractor shall make required changes to the accepted Project Work schedule and associated Project narrative. Upon acceptance by the Engineer, this will become the new accepted Project Work schedule and associated Project narrative.

The Contractor shall collect information on all activities worked on or scheduled to be worked on during the previous report period, including shop drawings, Material procurement, and Contract Change Orders that have been issued. Information shall include actual start and completion dates on activities started or completed, or if still in progress, the remaining time duration.

The Contractor shall develop detailed sub-networks to incorporate changes, Additional Work, and Extra Work into the Project Work schedule. Detailed sub-networks shall include all necessary activities and logic connectors to describe the Work and all restrictions on it. The restraints shall include those activities from the Project Work schedule that initiated the sub-network as well as those restrained by it. The procedure for acceptance of the revised or updated Project Work schedule as the new accepted Project Work schedule will be as provided above.

The Contractor shall evaluate this information each month and compare it with the accepted Project Work schedule. The Contractor shall make an updated bar chart schedule to incorporate the effect changes may have on the Project completion time(s). For any activity that has started, the Contractor shall add a symbol to show the actual date the activity started and the number of normal workdays remaining until completion. For activities that are finished, a symbol shall be added to show the actual date. The Contractor shall submit, digitally and in paper, copies of the updated bar chart to the Engineer within 7 Days after the progress meeting, along with a progress report as required by "b." below.

b) **Progress Report** - Each month the Contractor shall submit a progress report and an update of the Project Work schedule to the Engineer. The report and updated schedule shall be submitted both digitally and in paper copy and shall include the following:

- A sufficient description, in narrative form, to describe the past progress, anticipated activities, and stage Work;
- A description of any current and expected changes or delaying factors and their effect on the construction schedule;
- Proposed corrective actions;
- Proposals to keep the Project on schedule in the event of a delay; and
- Any changes to the logic as compared to the accepted Project Work schedule.

D. Substitution of Schedules - When a Type "A" schedule is required, a Type "B" or Type "C" schedule may be substituted for the Type "A" schedule.

When a Type "B" schedule is required, a Type "C" schedule may be substituted for the Type "B" schedule.

E. Specified Contract Time Not Superseded by Schedule Revisions - The completion dates in any Project Work schedule and any revised or updated Project Work schedules shall be within the Contract Time(s) specified for the Project, or within adjusted Contract Times approved according to 00180.80(c). Acceptance of any Project Work schedule or any revised or updated Project Work schedules shall not

constitute approval of any completion dates that exceed such Contract Time(s). If the Contractor believes that additional Contract Time is due, the Contractor shall submit, with a revised Project Work schedule, a request for adjustment of Contract Time according to 00180.80(c). A request for an adjustment of Contract Time will be evaluated using the most recently accepted Project Work schedule.

F. Float Time - Float time shown on the Project Work schedule, including any time between a Contractor's scheduled completion date and the specified Contract Time(s), does not exist for the exclusive use of either party to the Contract and belongs to the Project.

G. Schedules Do Not Constitute Notice - Submittal of a Project Work schedule, with supporting Project narrative, does not constitute or substitute for any notice the Contractor is required under the terms of the Contract to give the Agency.

H. Failure to Provide Schedule - The Project Work schedule is essential to the Agency. The Contractor's failure to provide the schedule, schedule information, progress reports, Project narratives, or schedule updates when required will be cause to suspend the Work, or to withhold Contract payments as necessary to protect the Agency, until the Contractor provides the required information to the Engineer.

00180.42 Preconstruction Conference - Unless otherwise approved in writing by the Engineer, before any Work is performed and within 7 Calendar Days of the Notice to Proceed, the Contractor shall meet with the Engineer for a preconstruction conference at a time mutually agreed upon.

00180.43 Commencement and Performance of Work - From the time of commencement of the Work to the time of Final Acceptance the Contractor shall:

A. Provide adequate Materials, Equipment, labor, and supervision to perform and complete the Work;
B. Perform the Work as vigorously and as continuously as conditions permit, and according to a Project Work schedule that ensures completion within the Contract Time or the adjusted Contract Time;
C. Not voluntarily suspend or slow down operations without prior written approval from the Engineer; and
D. Not resume suspended Work without the Engineer's written authorization.

00180.44 Project Meetings - The Contractor shall participate in conferences and meetings for the purposes of addressing issues related to the Work, reviewing and coordinating progress of the Work and other matters of common interest to the Contractor, Engineer and Agency**.**

A. **Meeting Participants** - Representative of entities participating in meetings shall be qualified and authorized to act on behalf of entity each represents.

B. Meet in Agency's meeting room facility, or in a location otherwise agreed to by Agency and Contractor.

C. Engineer will distribute to each anticipated participant written notice and agenda of each meeting at least 4 days before meeting.

D. Require attendance of Contractor's superintendent and project manager, and Subcontractors who are or are proximate to be actively involved in the Work, or who are necessary to agenda.

E. Engineer will invite agencies, utility companies or others when the Work affects their interests, and others necessary to agenda.

F. Engineer will record minutes of meeting and distribute copies of minutes within 7 days of meeting to participants and interested parties. Contractor shall advise Engineer within two days of receipt of meeting minutes if Contractor does not agree with content of minutes.

G. **Progress Meetings**

1. Purpose of Progress Meetings: To expedite Work of Subcontractors or other organizations that are not meeting scheduled progress, resolve conflicts, and coordinate and expedite execution of the Work.

2. Attend regularly scheduled bi-weekly progress meetings conducted by Engineer.

3. Review progress of the Work, Progress Scheduled, 3-week look-ahead schedule, narrative report, Application for Payment, record documents, and additional items of current interest that are pertinent to execution of the Work.

4. Verify:

    a) Actual start and finish dates of completed activities since last progress meeting.
    b) Durations and progress of activities not completed.
    c) Reason, time, and cost data for Change Order Work that will be incorporated into Progress Schedule and Application for Payment.
    d) Percentage completion of items on Application for Payment
    e) Reasons for required revisions to Progress Schedule and their effect on Contract Time and Contract Amount.

5. Review status of Requests for Clarification/Information and Submittals review.

6. Discuss Project safety and security.

7. Discuss traffic control.

8. Discuss potential problems which may impede scheduled progress and corrective measures.

H. Coordination Meetings

1. Purpose of Coordination Meetings: To coordinate the Work of this Contract with the Work of the Agency and with Work of other Contractors.

I. Pre-Event Meetings

1. Prior to start of critical activities, the Contractor shall schedule a meeting with Engineer to review applicable specifications and drawings, coordination of inspection requirements and other key activities.

J. Pre-Survey Conference

1. The Contractor, applicable Subcontractors, Contractor's surveyor, Agency and Agency's surveyor shall meet with the Engineer two weeks prior to beginning survey work. The purpose of the meeting is to discuss methods and practices of accomplishing the survey work.

K. Other Meetings

1. The Contractor shall prepare for and attend other meetings as identified elsewhere in the Contract Documents.

00180.50 Contract Time to Complete Work:

A. General - The time allowed to complete the Work or Pay Item is stipulated in the Special Provisions, and will be known as the "Contract Time". (see 00110.20)

B. Kinds of Contract Time - The Contract Time will be expressed in one or more of the following ways

1. **Fixed Date Calculation** - The calendar date on which the Work or Pay Item shall be completed; or

2. **Calendar Day Calculation** - The number of Calendar Days from a specified beginning point in which the Work or Pay Item shall be completed.

3. **Work Day Calculation** – The number of Work Days from a specified beginning point in which the Work or Pay item shall be completed.

C. Beginning of Contract Time - When the Contract Time is stated in Calendar Days, counting of Contract Calendar Days will begin with the first Calendar Day following the date of the Notice to Proceed. When the Contract Time is stated in Work Days, counting of Contract Work Days will begin with the first Work day following the date of the Notice to Proceed.

D. Recording Contract Time - All Contract Time will be recorded and charged to the nearest one-half Day.

Contract Times may be extended because of delays in the completion of the Work due to abnormal weather conditions provided that the Contractor shall, within 10 days of the beginning of such delay, notify Engineer in writing of the cause of the delay and request an extension of time. Such requests shall be accompanied with supporting documentation referenced to the NOAA INDEX weather in the Project vicinity. Engineer will make recommendations to Agency to extend the Contract Times for completing the Work when, in Engineer's judgment, the findings of facts and extent of delay justify such an extension. Contractor shall not be entitled to any additional compensation of any kind arising out of or relating to abnormal weather conditions.

On Contracts with Calendar Day or Work Day counts, the Engineer will furnish the Contractor a weekly statement of Contract Time charges. The statement will show the number of Calendar Days counted for the preceding week and the number of Calendar Days remaining prior to the established completion date.

For Contracts with fixed completion dates or fixed milestone completion dates for Pay Items, the Engineer will furnish the Contractor a weekly statement of Contract Time charges only after expiration of the Contract Time. The statement will show the number of Calendar Days of liquidated damages that have been assessed, if any.

These statements will include any exclusions from, or adjustments to, Contract Time.

E. Exclusions from Contract Time - Regardless of the way Contract Time is expressed in the Contract, certain Calendar Days will not be charged against Contract Time. These exclusions will be allowed when the Contractor is prevented from performing Work due to one of the following reasons, resulting in delay:

1. Acts of God or Nature;
2. Court orders enjoining prosecution of the Work;
3. Strikes, labor disputes or freight embargoes that, despite the Contractor's reasonable efforts to avoid them, cause a shutdown of the entire Project or one or more major operations. "Strike" and "labor dispute" may include union action against the Contractor, a Subcontractor, a Materials supplier, or the Agency; or

4. Suspension of the Work by written order of the Engineer for reasons other than the Contractor's failure or neglect.

F. Time Calculation Protest - In the event the Contractor disputes the accuracy of the statement of Contract Time charges, it shall immediately contact the Engineer and attempt to resolve the dispute. If the dispute cannot be resolved informally, the Contractor shall submit a formal written protest to the Engineer within 7 Calendar Days of the date the Engineer mailed or delivered the statement. Failure to submit a formal written protest within the 7 Calendar Day period constitutes the Contractor's approval of the time charges, or adjusted time charges, itemized in the statement.

G. End of Contract Time - When the Engineer determines that the On-Site Work has been completed, except for the items listed below, the Engineer will issue a Second Notification.

The Second Notification will list:

1. The date the time charges stopped;
2. Final trimming and cleanup tasks (see 00140.90);
3. Equipment to be removed from the Project Site;
4. Minor corrective work (punch list); and
5. Submittals, including without limitation all required certifications, bills, forms, warranties, certificate of insurance coverage (00170.70), and other documents, required to be provided to the Engineer before Third Notification will issue.

The Contractor shall complete all tasks listed in the Second Notification in an expeditious manner within the time frame specified for Final Completion.

00180.60 Notice of Delay - The Contractor shall notify the Engineer of any delay that will likely prevent completion of the Work or a Pay Item by the date specified in the Project Work schedule. The notice shall be in writing and shall be submitted within 7 Calendar Days of when the Contractor knew or should have known of the delay. The notice shall include, to the extent available, the following:

A. The reasons or causes for the delay;
B. The estimated duration of the delay and the estimated resulting cumulative delay in Contract completion;
C. Except for 00180.50E and 00180.65 delays, whether or not the Contractor expects to request an adjustment of Contract Time due to the delay;
D. Whether or not the Contractor expects to accelerate due to the delay; and
E. Whether or not the Contractor expects to request additional compensation due to the delay. Except for 00180.50E and 00180.65 delays, failure to include this information will constitute waiver of the Contractor's right to later make such a request.

00180.65 Rights-of-Way and Access Delays - Right-of-Way and access delays will be taken into consideration in adjusting Contract Time, and in approving additional compensation if the performance of the Work is delayed because of the Agency's failure to make available to the Contractor:

A. Necessary Rights-of-Way;
B. Agency-owned or Agency-controlled Materials sources that are offered in the Contract for the Contractor's use; or
C. Access to, or rights of occupancy of, buildings and other properties the Contractor is required to enter or to disturb according to Contract requirements.

If the duration and time period of an anticipated delay is stated in the Special Provisions, only the delay occurring beyond that duration and time period will be considered for adjusting Contract Time or providing additional compensation.

00180.70 Suspension of Work:

A. General - The Engineer has authority to suspend the Work, or part of the Work, for any of the following causes:

1. Failure of the Contractor to correct unsafe conditions;
2. Failure of the Contractor to carry out any provision of the Contract;
3. Failure of the Contractor to carry out orders issued by the Engineer, the Agency, or any regulatory authority;
4. Existence of conditions unsuitable to proper or safe performance of the Work; or
5. Any reason considered by the Agency to be in the public interest.

When Work has been suspended for any reason, the Contractor shall not resume Work without the Engineer's written authorization.

B. Contractor's Responsibilities during and after Suspension - During periods of suspension of the Work, the Contractor shall continue to be responsible for protecting and repairing the Work according to 00170.80, and for ensuring that a single designated representative responsible for the Project remains available according to 00150.40B.

When Work is resumed after suspension, unless otherwise specified in the Contract, the Contractor shall perform the following at no additional compensation:

1. Replace or repair any Work, Materials, and Equipment to be incorporated into the Work that was lost or damaged because of the temporary use of the Project Site by the public; and
2. Remove Materials, Equipment, and temporary construction necessitated by temporary maintenance during the suspension, as directed by the Engineer.

C. Compensation and Allowances for Suspension - Compensation and allowance of additional Contract Time due to suspension of any portion of the Work will be authorized only for Agency-initiated suspensions for reasons other than the Contractor's failure or neglect. (refer to 00180.50(e), 00180.65, and 00195.40)

00180.80 Adjustment of Contract Time:

A. General - Contract Time established for the Work will be subject to adjustment, either by increase or decrease, for causes beyond the control of the Contractor, according to the terms of this Subsection. After adjustment, the Contract Time will become, and be designated as, the "Adjusted Contract Time". Except as provided in 00180.65 and 00195.40, an adjustment of Contract Time shall be the Contractor's only remedy for any delay arising from causes beyond the control of the Contractor.

B. Contractor's Request Not Required - The Engineer may increase or decrease the Contract Time or the Adjusted Contract Time if Change Orders or Extra Work orders issued actually increase or decrease the amount of time required to perform the Work. The Engineer may also increase Contract Time in the event of Right-of-Way and Access delays (see 00180.65), and those delays due to causes beyond the Contractor's control specified in 00180.50E. The Engineer will promptly inform the Contractor of adjustments made to Contract Time according to this Subsection, and will include the reasons for adjustment.

If the Agency anticipates delay during performance of the Contract, and specifies its expected duration and time period in the Special Provisions, the Engineer will only consider additional delay beyond the stipulated duration and time period in determining whether to adjust Contract Time.

C. Contractor's Request Required - In the event the Contractor believes that additional Contract Time is due, the Contractor shall submit to the Engineer a timely request for adjustment of Contract Time. The Engineer will not consider untimely requests. The Agency regards as timely only those requests for adjustment of Contract Time that:

1. Accompany a proposed revised Project Work schedule submitted according to 00180.41, for comparison with the last revision of the Project Work schedule; or
2. Are not otherwise deemed waived and are submitted within 15 Days after the date of Second Notification, if Second Notification has been issued.

The Engineer will not grant an adjustment of Contract Time for events that occurred prior to the date of the last revision of the Project Work schedule. The Engineer will not authorize, nor the Agency pay, acceleration costs incurred by the Contractor prior to its submittal of a request for adjustment of Contract Time to which the acceleration costs relate.

The Contractor's request for adjustment of Contract Time shall be submitted to the Engineer on a form provided by, or in a format acceptable to, the Engineer, and shall include a copy of the written notice required under 00180.60. The request shall include without limitation:

1. Consent of the Contractor's Surety if the request totals more than 30 Calendar Days of additional Contract Time;
2. Sufficient detail for the Engineer to evaluate the asserted justification for the amount of additional Contract Time requested;
3. The cause of each delay for which additional Contract Time is requested, together with supporting analysis and data;
4. Reference to the Contract provision allowing Contract Time adjustment for each cause of delay;
5. The actual or expected duration of delay resulting from each cause of delay, expressed in Calendar Days; and
6. A schedule analysis based on the current approved Project Work schedule for each cause of delay, indicating which activities are involved and their impact on Contract completion.

D. Basis for Adjustment of Contract Time - In the adjustment of Contract Time, the Engineer will consider causes that include, but are not limited to:

1. Failure of the Agency to submit the Contract and bond forms to the Contractor for execution within the time stated in 00130.50, or to submit the Notice to Proceed within the time stated in 00130.90;
2. Errors, changes, or omissions in the Supplemental Drawings, quantities, or Specifications;
3. Performance of Extra Work;
4. Failure of the Agency or Entities acting for the Agency to act promptly in carrying out Contract duties and obligations;
5. Acts or omissions of the Agency or Entities acting for the Agency that result in unreasonable delay referenced in 00195.40;
6. Causes cited in 00180.50(e); and
7. Right-of-way and access delays referenced in 00180.65.

The Engineer will not consider requests for adjustment of Contract Time based on any of the following:

1. Contentions that insufficient Contract Time was originally specified in the Contract;
2. Delays that do not affect the specified or Adjusted Contract Time;
3. Delays that affect the Contractor's planned early completion, but that do not affect the specified or adjusted Contract Time;
4. Shortage or inadequacy of Materials, Equipment or labor;
5. Work stoppage required by the Engineer to determine the extent of Work defects

6. Time for the Contractor to correct the Work defects from date of notification of the defects until the correction work is completed and has been approved by the Engineer.
7. Late delivery of Materials and Equipment to be incorporated into the Work, except under those conditions referenced in 00180.50(e);
8. Different area of Material source in 00160.40(a);
9. Substitution of Equipment in 00180.31(c);
10. Reasonably predictable weather conditions; or
11. Other matters within the Contractor's control or Contract responsibility.

E. Consideration and Response by Agency - The Engineer will only consider a Contractor's request for Contract Time adjustment submitted according to the requirements of 00180.80C. The Engineer may elect not to consider claimed delays that do not affect the specified or adjusted Contract Time required to complete the Work.

The Engineer may adjust Contract Time for causes not specifically identified by the Contractor in its request.

The Engineer will review a properly submitted request for Contract Time adjustment, and within a reasonable time will advise the Contractor of the Engineer's findings. If the Contractor disagrees with the Engineer's findings, the Contractor may request review according to the procedure specified in 00199.40.

00180.85 Failure to Complete on Time; Liquidated Damages:

A. Time is of the Essence - Time is of the essence in the Contractor's performance of the Contract. Delays in the Contractor's performance of the Work may inconvenience the traveling public, interfere with business and commerce, and increase cost to the Agency. It is essential and in the public interest that the Contractor prosecute the Work vigorously to Contract completion.

The Agency does not waive any rights under the Contract by permitting the Contractor to continue to perform the Contract, or any part of it, after the Contract Time or adjusted Contract Time has expired.

B. Liquidated Damages - The Agency will sustain damage if the Work is not completed within the specified Contract Time. However, in certain Agency projects it may be unduly burdensome and difficult to demonstrate the exact dollar value of such damages. The Agency will identify such projects in the Special Provisions related to them. In these projects, the Contractor agrees to pay to the Agency, not as a penalty but as liquidated damages, the amount specified in the Special Provisions for each Calendar Day the Contractor expends performing the Contract in excess of the Contract Time or adjusted Contract Time.

Payment by the Contractor of liquidated damages does not release the Contractor from its obligation to fully and timely perform the Contract according to its terms. Nor does acceptance of liquidated damages by the Agency constitute a waiver of the Agency's right to collect any additional damages it may sustain by reason of the Contractor's failure to fully perform the Contract according to its terms. The liquidated damages shall constitute payment in full only of damages incurred by the Agency due to the Contractor's failure to complete the Work on time.

If the Contract is terminated according to 00180.90A, and if the Work has not been completed by other means on or before the expiration of Contract Time or adjusted Contract Time, liquidated damages will be assessed against the Contractor for the duration of time reasonably required to complete the Work.

00180.90 Termination of Contract and Substituted Performance:

A. Termination for Default - Termination of the Contract for default may result if the Contractor:

1. Fails to comply with the requirements for records;
2. Violates any material provision of the Contract;
3. Disregards applicable laws and regulations or the Engineer's instructions;
4. Refuses or fails to supply enough Materials, Equipment or skilled workers for prosecution of the Work in compliance with the Contract;
5. Fails to make prompt payment to Subcontractors;
6. Makes an unauthorized general assignment for the benefit of the Contractor's creditors;
7. Has a receiver appointed because of the Contractor's insolvency;
8. Is adjudged bankrupt and the court consents to the Contract termination; or
9. Otherwise fails or refuses to faithfully perform the Contract according to its terms and conditions.

If the Contract is terminated by the Agency, upon demand the Contractor and the Contractor's Surety shall provide the Engineer with immediate and peaceful possession of the Project Site, and of all Materials and Equipment to be incorporated into the Work, whether located on and off the Project Site, for which the Contractor received progress payments under 00195.50.

If the Contract is terminated for default, neither the Contractor nor its Surety shall be:

1. Relieved of liability for damages or losses suffered by the Agency because of the Contractor's breach of Contract; or
2. Entitled to receive any further progress payments until the Work is completed. However, progress payments for completed Work that remain due and owing at the time of Contract termination may be made according to the terms of 00195.70, except that the Engineer will be entitled to withhold sufficient funds to cover costs incurred by the Agency as a result of the termination. Final payment to the Contractor will be made according to the provisions of Section 00195.

If a termination under this provision is determined by a court of competent jurisdiction to be unjustified, the termination shall be deemed a termination for public convenience.

B. Substituted Performance - According to the Agency's procedures, and upon the Engineer's recommendation that sufficient cause exists, the Agency, without prejudice to any of its other rights or remedies and after giving the Contractor and the Contractor's Surety 10 Calendar Days' written notice, may:

1. Terminate the Contract;
2. Substitute the Contractor with another Entity to complete the Contract;
3. Take possession of the Project Site;
4. Take possession of Materials on the Project Site;
5. Take possession of Materials not on the Project Site, for which the Contractor received progress payments under 00195.50;
6. Take possession of Equipment on the Project Site that is to be incorporated into the Work;
7. Take possession of Equipment not on the Project Site that is to be incorporated into the Work, and for which the Contractor received progress payments under 00195.70; and
8. Finish the Work by whatever method the Agency deems expedient.

If, within the 10 Calendar Day notice period provided above, the Contractor and/or its Surety corrects the basis for declaration of default to the satisfaction of the Engineer, or if the Contractor's Surety submits a proposal for correction that is acceptable to the Engineer, the Contract will not be terminated.

C. Termination for Public Convenience - The Engineer may terminate the Contract for convenience in whole or in part whenever the Engineer determines that termination of the Contract is in the best interest of the public and for, but not limited to, the following reasons:

1. If work under the Contract is suspended by an order of a public agency for any reason considered to be in the public interest other than by a labor dispute or by reason of any third party judicial proceeding relating to the Work other than a suit or action filed in regard to a labor dispute; or
2. If the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the Contract; or;
3. If Agency funding from federal, state, local, or other sources is not obtained and continued at levels sufficient to allow for the purchase of the indicated quantity of services. This Contract may be modified to accommodate a reduction in funds; or
4. If Federal or State regulations or guidelines are modified, changed, or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this Contract,

The Engineer will provide the Contractor and the Contractor's Surety 7 Calendar Days' written notice of termination for public convenience. After such notice, the Contractor and the Contractor's Surety shall provide the Engineer with immediate and peaceful possession of the Project Site, and of Materials and Equipment to be incorporated into the Work, whether located on and off the Project Site, for which the Contractor received progress payments under 00195.50.

Termination under any provision of this paragraph shall not affect any right, obligation, or liability of Contractor or Agency, which accrued prior to such termination.

If the Contract is terminated for public convenience, neither the Contractor nor its Surety shall be relieved of liability for damages or losses suffered by the Agency as a result of defective, unacceptable or unauthorized Work completed or performed.

Compensation for Work terminated by the Engineer under this provision will be determined according to the provisions of 00195.70B.

Section 00190 - Measurement of Pay Quantities

00190.00 Scope - The Engineer will measure pay quantities for accepted Work according to the United States standard measure unless otherwise provided in the Contract. Unless otherwise specified in the Contract, the Engineer will round off all quantity computations using the following convention:

- The final significant digit will not be changed when the succeeding digit is less than 5.
- The final significant digit will be increased by one when the succeeding digit is 5 or greater.

The measurement provisions contained in the Specifications for each Pay Item will supplement or modify the above convention by:

- Imposing measurement limitations
- Describing measurement or computation procedures
- Giving conversion factors or adjustment conditions
- Providing for determination of reasonably accurate and representative Pay Item quantities

Measurements required or allowed to be made by the Contractor will be subject to the Engineer's verification. The Engineer's decision about measurement is final.

00190.10 Measurement Guidelines - Measurement of quantities will be made on the following bases, unless otherwise specified in the Contract.

A. Unit Basis - Unit will be each, unless otherwise specified in the Contract and will be determined by actual count of units in place.

B. Length Basis - Length will be feet or mile, unless otherwise specified in the Contract and will be determined by measuring the length at least to the nearest 0.1 foot or at least to the nearest 0.1 mile, as applicable, unless otherwise specified in the Contract. Measurements will be limited to the dimensions shown or specified, or as directed by the Engineer.

C. Area Basis - Area will be square foot, square yard, or acre, unless otherwise specified in the Contract and will be determined by measuring the width and the length (or height) at least to the nearest 0.1 foot and computed at least to the nearest 0.1 square foot, nearest 0.1 square yard, or nearest 0.1 acre, as applicable, unless otherwise specified in the Contract.

D. Weight Basis - Weight will be pound or ton, unless otherwise specified in the Contract and will be determined as follows:

1. **Pound** - Pound weight will be determined by the net weight identified on the manufacturer's packaged labels, subject to periodic check weighing. Weight by pound will be measured at least to the nearest 1.0 pound unless otherwise specified in the Contract.

   Provide a certificate with each shipment together with a certified copy of the weight of each delivery. If the check weight is less than the manufacturer weight by more than 0.4%, the discrepancy will be resolved by the Engineer.

2. **Ton** - Ton weight will be determined on Contractor-provided scales as required under 00190.20 unless otherwise allowed by the Specifications. Weight by ton will be measured at least to the nearest 0.01 ton unless otherwise specified in the Contract.

If bituminous materials, Portland cement, lime, and similar bulk Materials are shipped by truck or rail, the supplier's shipping invoice with net scale weights, or volumes converted to weights, may be used for Pay Item quantity determination in place of weights determined on the Contractor-provided vehicle scales.

Shipping invoice weights of the supplier's truck or transport shall be subject to periodic check weighing on the Contractor's vehicle scales, or other scales designated, according to 00190.20. If the check weight is less than the supplier weight by more than 0.4%, the discrepancy will be resolved by the Engineer.

No payment will be made:

- For quantities in excess of the supplier weight
- When Materials have been lost, wasted, or otherwise not incorporated into the Work
- For additional hauling costs resulting from the check weighing

E. Volume Basis - Volume will be cubic yard truck measure or in-place measure, gallons, foot board measure (FBM), or thousand foot board measure (MFBM), unless otherwise specified in the Contract and will be measured at least to the nearest 0.1 cubic yard, nearest 1.0 gallon, nearest 0.1 FBM, or nearest 0.1 MFBM, as applicable, unless otherwise specified in the Contract.

Truck measure will be the measured and calculated maximum "water level" capacity of the vehicle. Quantities will be determined at the point of delivery, with no allowance for settlement of Material during transit. When required to facilitate measurement, the vehicle load shall be leveled at the point of delivery. Payment will not be made for Material in excess of the maximum "water level" capacity. Deductions will be made for loads below the maximum "water level" capacity.

When bituminous materials are measured by volume, the volume will be measured at 60 °F or will be corrected to the volume at 60 °F using the correction factors found in the MFTP (ODOT TM 321).

F. Time Basis - Time will be hour, Day, or year, unless otherwise specified in the Contract, and will be measured to at least the nearest 0.5 hour, nearest 1.0 Day, or nearest 1.0 year, as applicable, unless otherwise specified in the Contract.

G. Standard Manufactured Items - If standard manufactured items, such as fence, wire, plates, rolled shapes, pipe, conduit and other similar items are specified in the Contract by properties such as gauge, unit weight, or section dimensions, the manufacturing tolerances established by the industry involved will be accepted unless more stringent tolerances are cited in the Contract.

H. Lump Sum Basis - Lump sum, when used, means the Work described shall be completed and accepted without measurement unless changes are ordered in writing by the Engineer.

00190.20 Contractor to Provide Vehicle Weigh Scales:

A. General - If the Specifications require measurement by weighing on vehicle weigh scales, the Contractor shall provide vehicle weigh scales and shall transport Materials to the scales. Subject to the Engineer's approval, weights may be determined by plant or hopper scales according to 00190.30.

Contractor-provided scales shall be furnished, installed and maintained by the Contractor or its supplier, or, subject to the Engineer's approval, may be commercial scales located in the vicinity of the Project.

Unless otherwise provided in the Contract, Pay Items to be measured by weight shall include all Contractor costs for providing, maintaining, inspecting, and testing scales; for furnishing appropriate weigh tickets; for self-printing scales; and for transporting Materials to the scales or to check weighing.

B. Requirements - The scales shall conform to ORS 618, or the laws of the state in which they are located, and NIST Handbook 44, and shall be:

- Licensed by the Oregon Department of Agriculture, or by the analogous regulatory body for scales located outside the State;
- Technically suitable for weighing the Materials;
- Properly installed and maintained; and
- Accurate to the required tolerances.

The weight of any Materials weighed by anyone other than the Engineer will be subject to check weighing as the Engineer directs.

C. Approaches - Vehicle scale approaches shall be:

- At each end of the scale platform;
- Straight and in line with the platform; and
- Long enough to accommodate combination vehicles longer than the scale platform so that they are level and allow release of brakes before weighing.

D. Inspections - Contractor shall have all scales certified, that is inspected and their accuracy tested, by the Oregon Department of Agriculture, an analogous regulatory body for scales located outside the State, or a scale service company as follows:

- Before use if installed at a new site;
- 60 Calendar Days after initial inspection;
- Every 6 months thereafter; and
- When the Engineer directs additional inspections.

No Materials weighed on scales without current certifications according to this Subsection will be accepted. The Contractor shall provide a copy of all required certifications to the Engineer.

Testing by a scale service company within the State of Oregon shall comply with ORS 618.

If additional inspections directed by the Engineer confirm that the scale accuracy is within the required tolerances, the Agency will pay the cost for inspecting and testing the scales. If the scale accuracy is not within these tolerances, the Contractor shall pay the cost for inspecting and testing the scales.

E. Inspection Results - If an inspection indicates the scales have been under-weighing (indicating less than the true weight), the Agency will make no additional payment to the Contractor for Materials previously weighed.

If an inspection indicates the scales have been over-weighing (indicating more than the true weight), the weights will be reduced for Materials received after the time the Engineer determines the overweighing began or, if that is not possible, after the last acceptable certification of the scales. The reduction will be the amount of error in excess of the 0.2% maintenance tolerance allowed in the Contract.

F. Contractor-Provided Weigh Technician - The Contractor shall provide a technician to operate Contractor-provided vehicle weigh scales. The Agency may observe procedures and require check weighing according to the following:

1. **Scale with Automatic Printer** - If the scales have an automatic weigh memo printer that does not require manual entry of gross weight information, the Agency may periodically have a representative at the scales to observe the weighing procedures. In addition, the Engineer may periodically check the weight for a load of Materials by directing the haul vehicle to reweigh on a different scale that has been inspected and certified according to 00190.20(b) and 00190.20(d).

   If a different scale is not available within a 30 mile round trip from the regular haul route the Agency will allow check weighing on an approved alternate basis. Check weights within 0.4% of the Contractor-provided weight are acceptable.

   The Engineer will resolve discrepancies found by check weighing. Agency employee costs will be paid by the Agency. The Contractor shall pay all other costs resulting from the check weighings, including without limitation the use of other scales.

   If more than 50 tons per Day of all types of Materials are received from a scale, the Contractor shall make random check weighings at least every tenth Day on which more than 50 tons is received or at each interval that 10,000 tons has been weighed, whichever occurs first, or as directed by the Engineer. The Contractor shall make at least one check weighing on projects where more than 2,000 tons of all types of Materials are received from a scale. The Contractor shall provide the Engineer with the results of the check weighing.

2. **Scale Without Automatic Printer** - If the scales require manual entry of gross weight information, the Agency may periodically have a representative weigh witness at the scales to observe the weighing procedures. The Contractor shall inform the Engineer of his intent to use a scale without an automatic printer at least 3 working Days before weighing begins or before the Contractor changes to a scale that does not have an automatic printer. The Contractor shall pay costs for the weigh witness. The hourly cost of the weigh witness will be as stated in the Special Provisions. In addition, the Engineer may periodically check the weight for a load of Materials by directing the haul vehicle to reweigh on a different scale that has been inspected and certified according to 00190.20(b) and 00190.20(d).

   If a different scale is not available within a 30 mile round trip from the regular haul route the Agency will allow check weighing on an approved alternate basis. Check weights within 0.4% of the Contractor-provided weight are acceptable.

   The Engineer will resolve discrepancies found by check weighing. Agency employee costs for check weighings will be paid by the Agency. The Contractor shall pay all other costs resulting from the check weighings, including without limitation the use of other scales.

   If more than 50 tons per Day of all types of Materials are received from a scale, the Contractor shall make random check weighings at least every tenth day on which more than 50 tons is received or at each interval that 10,000 tons has been weighed, whichever occurs first, or as directed by the Engineer. The Contractor shall make at least one check weighing on all projects where materials are received from a scale without an automatic printer. The Contractor shall provide the Engineer with the results of the check weighing.

3. **Duties of Weigh Technician** - The Contractor's weigh technician shall:

    - Determine twice a Day, or as otherwise directed by the Engineer, the empty haul weights (tare weights) of hauling vehicles, unless vehicles are tared before each load;
    - Furnish daily a listing of the tare weights if 10 or more loads are hauled during that Day;
    - Furnish a note listing the net weight for each consecutive ten loads with the following load;
    - Furnish a daily listing of the net weights and total weight for each type of Material hauled during that Day; and
    - Furnish a legible, serially numbered weigh memo for each load of Materials to the Agency's Materials receiver at the point of delivery, or as directed by the Engineer. The memo shall identify the Project, the Materials, the date, net weight (gross and tare as appropriate), and identification of vehicle, driver and weigh technician.

G. Agency-Provided Weigh Technician - If the Contractor provides vehicle weigh scales without a weigh technician meeting the requirements of this Subsection, the Agency will provide a weigh technician at the Contractor's expense. The hourly cost for the weigh technician will be as stated in the Special Provisions. The Contractor shall provide a weighhouse for the weigh technician according to Section 00205. The Agency's weigh technician will:

- Determine tare weights;
- Prepare weigh memos for each load;
- Compile the weigh records; and
- Not participate in the production of Materials or the loading of haul vehicles.

00190.30 Plant Scales - The Contractor, with the Engineer's written approval, may weigh plant-mixed Materials on scales that have either:

- An automatic weight batching and mixing control printer system; or
- A weigh hopper printer system.

Any additional costs resulting from the use of these scales shall be borne by the Contractor. Check weighing will be done according to 00190.20F.

Except for 00190.20C regarding approaches, the Contractor's use of plant scales shall comply with all provisions of 00190.20.

The Engineer's approval for the Contractor's use of plant scales to determine pay weights will be rescinded if check weighing or scale inspections indicate the scales do not consistently determine weights within the tolerances allowed by state law.

Section 00195 – Payment

00195.00 Scope and Limit:

A. General - The Agency will pay only for measured Pay Item quantities incorporated into the Work or performed according to the terms of the Contract. The Contractor understands and agrees that Pay Item quantities listed in the Schedule of Items do not govern payment.

Payment constitutes full compensation to the Contractor for furnishing all Materials, Equipment, labor, and Incidentals necessary to complete the Work; and for risk, loss, damage, and expense arising from the nature or prosecution of the Work or from the action of the elements, subject to the provisions of 00170.80. The Contractor shall include the costs of bonds and insurance for the Project in the unit price for each Pay Item of Work to be performed.

B. Essential or Incidental Materials or Work - When the Specifications state that the unit price for a Pay Item is compensation for certain Materials or Work essential or Incidental to the Pay Item, the same Materials or Work will not be measured or paid under any other Pay Item.

00195.10 Payment For Changes in Materials Costs - On certain projects, as identified in the Special Provisions, an escalation/de-escalation clause with respect to asphalt cement will be in effect during the life of the Contract.

00195.13 Asphalt Cement Material Price Escalation/De-Escalation Clause – Subsections 00195.13A, 00195.13B, 00195.13C, and 00195.13D contain the price escalation/de-escalation clause relating to asphalt cement materials (as defined in 00195.13D).

A. Monthly Asphalt Cement Material Price (MACMP) - The Monthly Asphalt Cement Material Price (MACMP) will be established by the Agency each month and will be based on the published prices of PG 64 22 asphalt cement furnished by Poten & Partners, Inc. The MACMP will be based on the average prices for the Pacific Northwest, Portland Oregon area. Each MACMP for a given month will be the average of the published prices for that MACMP for each Friday in that month. For information regarding the calculation of the MACMP, and for the actual MACMP, go to the ODOT website at:

http://www.oregon.gov/ODOT/Business/Pages/Asphalt-Fuel-Price.aspx

If the ODOT selected index ceases to be available for any reason, the Agency in its discretion will select and begin using a substitute price source or index to establish the MACMP each month. The MACMP will apply to all asphalt cement including but not limited to paving grade, polymer modified, and emulsified asphalts, and recycling agents. The Agency does not guarantee that asphalt cement will be available at the MACMP.

B. Base Asphalt Cement Material Price (Base) - The Base price for this Project is the MACMP published on the ODOT website for the month immediately preceding the bid opening date.

C. Monthly Asphalt Cement Adjustment Factor - The Monthly Asphalt Cement Adjustment Factor will be determined each month as follows:

- If the MACMP is within ± 5% of the Base, there will be no adjustment.
- If the MACMP is more than 105% of the Base, then:
  Adjustment Factor = (MACMP) - (1.05 x Base)
- If the MACMP is less than 95% of the Base, then:
  Adjustment Factor = (MACMP) - (0.95 x Base)

D. Asphalt Cement Price Adjustment - If specified in the Special Provisions, an asphalt cement escalation/de-escalation clause will be in effect during the life of the Contract. A price adjustment will be made for each pay item in the bid schedule containing asphalt cement. The price adjustment as calculated in 00195.13C above will use the MACMP for the month the asphalt is incorporated into the Project. The price adjustment will be determined by multiplying the asphalt incorporated during the month for subject Pay Items by the Adjustment Factor. The Agency reserves all of its rights under the Contract, including, but not limited to, its rights for suspension of the Work under 00180.70 and its rights for termination of the Contract under 00180.90, and this escalation/de-escalation provision shall not limit those rights.

00195.20 Changes to Plans or Character of Work:

A. Insignificant Changed Work - If the changes made under 00140.30 do not significantly change the character, quantity or unit cost of the Work to be performed under the Contract, the Agency will pay for such work at the Pay Item price.

B. Significant Changed Work - If the changes made under 00140.30 significantly alter the character, unit cost, or lump sum cost of the Work, the Agency will adjust the Contract. The Contractor shall not be entitled to compensation for any loss in profits resulting from elimination of, reduction of, or other change to, a part of the Work.

Any such adjustments may be less than, but will not be more than the amount justified by the Engineer on the basis of the established procedures set out in Section 00197 for determining rates for Extra Work, but those procedures shall account for the decrease or elimination of Work as well as for increases in the Work. This does not limit the application of Section 00199.

The term "Significant Changed Work" shall apply only to that circumstance in which the character of the Work, as changed, differs materially in kind, nature, or unit cost from that involved or included in the originally proposed construction.

For purposes of this Section, "Significant" is defined as:

1. An increase or decrease of more than 25 percent of the total cost of the Work calculated from the original proposal quantities and the unit contract prices; or,
2. An increase or decrease of more than 25 percent in the quantity of any one major contract item.

For condition 2 above, a major item is defined as any item that amounts to 10 percent or more of the original total contract price.

00195.30 Differing Site Conditions - Upon written notification, as required in 00140.40, the Engineer will investigate the identified conditions. If the Engineer determines that the conditions are differing Project site conditions under 00140.40 and cause an increase or decrease in the cost or time required to perform any Work under the Contract, an adjustment in the Contract Amount or Contract Time, excluding loss of anticipated profits, will be made, and the Contract modified accordingly, in writing. The Engineer will notify the Contractor as to whether or not an adjustment of the Contract is warranted.

No Contract adjustment which benefits the Contractor will be allowed unless the Contractor has provided the required written notice. Any such adjustments will be made according to 00195.20.

00195.40 Unreasonable Delay by the Agency - If the Contractor believes that performance of all or any portion of the Work is suspended, delayed, or interrupted for an unreasonable period of time in excess of that originally anticipated or customary in the construction industry, due to acts or omissions of the Agency, or

persons acting for the Agency, and that additional compensation, Contract Time, or both, are due the Contractor because of the suspension, delay or interruption, the Contractor shall immediately file a written notice of delay according to 00180.60. The Contractor shall then promptly submit a properly supported request for any additional compensation, Contract Time, or both, according to the applicable provisions in 00180.60 through 00180.80 and Section 00199.

The Engineer will promptly evaluate a properly submitted request for additional compensation. If the Engineer determines that the delay was unreasonable, and that the cost required for the Contractor to perform the Contract has increased as a result of the unreasonable suspension, delay or interruption, the Engineer will make an equitable adjustment, excluding profit, and modify the Contract in writing accordingly. The Engineer will notify the Contractor of the determination and whether an adjustment to the Contract is warranted.

Under this provision, no Contract adjustment will be allowed

- Unless the Contractor has provided the written notice required by 00180.60;
- For costs incurred more than 10 Calendar Days before the Engineer receives the Contractor's properly submitted written request;
- For any portion of a delay that the Engineer deems to be a reasonable delay, or for which an adjustment is provided for or excluded under other terms of the Contract; or
- To the extent that performance would nevertheless have been suspended, delayed or interrupted by causes other than those described in this Subsection.

00195.50 Progress Payments and Retained Amounts:

A. Progress Payments - The Agency's payment of progress payments, or determination of satisfactory completion of Pay Items or Work or release of retainage under 00195.50(d), shall not be construed as Final Acceptance or approval of any part of the Work, and shall not relieve the Contractor of responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

The estimates upon which progress payments are based are not represented to be accurate estimates. All estimated quantities are subject to correction in the final estimate. If the Contractor uses these estimates as a basis for making payments to Subcontractors, the Contractor assumes all risk and bears any losses that result.

Progress payments shall be determined through the use of forms developed by the Engineer.

1. **Progress Estimates** - At the same time each month, the Engineer will make an estimate of the amount and value of Pay Item Work completed. The amount of Work completed will be the sum of the estimated number of units completed for unit price Pay Items plus the estimated percentage completed of lump sum Pay Items.

The estimated value of the Work completed will be determined by using the Contract unit price for unit price Pay Items, and by using one of the following methods to determine the value of the lump sum Pay Items:

- A Contractor-submitted, Engineer-approved Schedule of Values; or
- Engineer's determination, when there is no approved, Contractor-submitted Schedule of Values.

The amounts to be allowed for lump sum Pay Items in progress payments will not exceed the reasonable value of the Work performed, as determined by the Engineer.

Incidentals such as formwork, falsework, shoring, and cribbing shall be included in the unit prices for the various Pay Items requiring their use, unless specified as a separate Pay Item. No payment will be made for Pay Items that include Incidentals until units or portions of such Pay Item Work are in place and completed. The costs of Incidentals will be paid in proportion to the percentage of Pay Item Work completed.

2. **Value of Materials on Hand** - If payment for Materials on Hand is allowed in the Special Provisions, the Engineer will also make an estimate of the amount and value of acceptable Materials on Hand, i.e., already delivered and stored according to 00195.60(a), to be incorporated into the Work.

3. **Value of Work Accomplished** - The sum of the values in (1) and (2) above will be collectively referred to in this Subsection as the "value of Work accomplished", subject to (4) below.

4. **Limitations on Value of Work Accomplished** - In determining the "value of Work accomplished", the Engineer's estimate will be based on the unit prices for the various Pay Items. Any amounts not included in progress payments due to substantial mathematical unbalancing of Pay Item prices will be included in the final payment issued according to 00195.90B.

5. **Reductions to Progress Payments** - With each progress payment, the Contractor will receive a Contract payment voucher and summary setting forth the value of Work accomplished reduced by the following:

- Amounts previously paid;
- Amounts deductible or owed to the Agency for any cause specified in the Contract;
- Additional amounts retained to protect the Agency's interests according to Subsection (e) below.

B. Retainage - The amount to be retained from progress payments will be 5% of the value of Work accomplished, and will be retained in one of the forms specified in Subsection (c) below.

As provided in 00170.65(b)(3) additional retainage of 25% of amounts earned will be withheld and released according to ORS 279C.845 when the Contractor fails to file the certified statements required in ORS 279C.845, FHWA Form 1273, and 00170.65.

C. Forms of Retainage - If the Agency withholds retainage, forms of acceptable retainage are specified below in Subsections (1) through (3). Unless the Contractor requests and the Agency accepts a form of retainage under Subsections (2) or (3), the Agency will use the "Cash, Alternate A" in this Subsection. If the Agency incurs additional costs as a result of the Contractor's election to use a form of retainage other than Cash, Alternate A, the Agency may recover such costs from the Contractor by a reduction of the final payment.

1. **Cash, Alternate A** - Retainage will be deducted from progress payments and held by the Agency until final payment is made according to 00195.90, unless otherwise specified in the Contract.

   Except as otherwise provided, the Agency will deposit the cash retainage withheld in an interest-bearing account, as required by ORS 279C.560(5). Interest earned on the account shall accrue to the Contractor. Amounts retained and interest earned will be included in the final payment made according to 00195.90, unless otherwise specified in the Contract.

   Any retainage withheld on Work performed by a Subcontractor will be released to the Contractor according to 00195.50(d).

2. **Cash, Alternate B (Retainage Surety Bond)** - The Contractor may submit a Surety bond in lieu of all or a portion of the retainage required under the Contract. The Agency will accept this Surety bond unless the Agency first finds in writing good cause for rejection based on unique project circumstances in accordance with ORS 279C.560(1)(c).

   The Surety bond must be in substantially the form specified in ORS 701.435 (4) (Oregon House Bill 4006, 2024), and executed by a Surety bonding company that is authorized to transact Surety business in the State of Oregon and may not be a Surety obligation of an individual. The Surety bond and any proceeds of the Surety bond must be made subject to all claims and liens and in the same manner and priority specified for retainage under ORS 279C.550 to 279C.570 and ORS 279C.600 to 279C.625. Agency will reduce the cash retainage held by an amount equal to the value of the Surety bond and pay the amount of the reduction to Contractor according to ORS 279C.570. Any retainage withheld on Work performed by a Subcontractor will be released to the Contractor according to 00195.50(d).

   When the Agency accepts a Surety bond in lieu of retainage from the Contractor, the Contractor shall accept Surety bonds from Subcontractors or Suppliers from which the Contractor has withheld retainage. At any time before final payment a Subcontractor may submit a Surety bond to the Contractor and request that the Contractor submit a Surety bond as described above for the portion of the Contractor's retainage that pertains to the Subcontractor. The Surety bond the Subcontractor provides to the Contractor must meet the Agency requirements specified in the paragraph above. When a Contractor at a Subcontractor's request obtains and submits a Surety bond under this subsection, the Contractor may withhold from payments to the Subcontractor an amount equivalent to the portion of the Contractor's Surety bond premium for which the Subcontractor is responsible in accordance with ORS 279C.560 (Oregon House Bill 4006, 2024).

   Within 30 Days after a Subcontractor's request the Contractor shall provide a Surety bond as described above, and the Agency will accept the Surety bond unless:

   - the Agency finds in writing good cause for rejection based on unique project circumstances in accordance with ORS 279C.560;
   - a Surety bond is not commercially available;
   - the Subcontractor refuses to pay to the Contractor the Subcontractor's portion of the Surety bond premium; or
   - the Subcontractor refuses to provide the Contractor with a Surety bond that meets the requirements of ORS 279C.560(1)(b).

   Notwithstanding 00195.50(D), within 30 Days of receiving a Surety bond from Contractor at a Subcontractor's or Supplier's request, Agency will release to the Contractor the amount held as retainage that is equivalent to the amount the Contractor submitted as a Surety bond. Contractor shall, within 30 Days after receiving a Surety bond from a Subcontractor or Supplier, release to the Subcontractor or Supplier the amount the Contractor holds as retainage that is equivalent to the amount of the Surety bond submitted, in accordance with ORS 279C.560(8).

3. **Bonds, Securities, and Other Instruments** - Contractor may deposit bonds, securities or other instruments with the Agency or in a bank or other financial institution, to be held by Agency instead of cash retainage for the benefit of the Agency, which the Agency will accept unless the Agency first finds in writing good cause for rejection based on unique project circumstances, in accordance with ORS 279C.560(1)(c).

If the Contractor deposits bonds, securities or other instruments, and Agency does not reject the bonds, securities or other instruments as permitted by ORS 279C.560(1)(c), the Agency will reduce the cash retainage by an amount equal to the value of the bonds, securities and other instruments. Interest or earnings on the bonds, securities and other instruments accrue to the Contractor.

- Bills, certificates, notes or bonds of the United States;
- Other obligations of the United States or agencies of the United States;
- Obligations of a corporation wholly owned by the federal government;
- Indebtedness of the Federal National Mortgage Association;
- General obligation bonds of the State of Oregon or a political subdivision of the State of Oregon;
- Irrevocable letters of credit issued by an insured institution, as defined in ORS 706.008.

The Contractor shall execute and provide such documentation and instructions respecting the bonds, securities and other instruments as the Agency may require to protect its interests. When the Engineer determines that all requirements for the protection of the Agency's interest have been fulfilled, the bonds and securities deposited instead of cash retainage will be released to the Contractor.

D. Reduction of Retainage - As the Work progresses, the amounts to be retained under (b) of this Subsection are subject to reduction in the Engineer's sole discretion. Retainage reductions will be considered only as follows:

- When the Work is 97.5% or more completed, the Engineer may, without application by the Contractor, reduce the retained amount to 100% of the value of the Work remaining.
- For a project funded by the FHWA, when a subcontractor has satisfactorily completed all of its Work, it may request release of retainage for that Work from the Contractor. The Contractor shall request reduction of retainage in the amount withheld for the subcontractor's Work after certifying to the Agency that the subcontractor's Work is complete, and that all contractual requirements pertaining to the subcontractor's Work have been satisfied. Within 60 Calendar Days of the end of the month in which the Agency receives the Contractor's certification regarding the subcontractor's Work, the Agency will either notify the Contractor of any deficiencies which require completion before release of retainage, or verify that the subcontractor's Work complies with the Contract and release all retainage for that Work with the next scheduled progress payment. Within 10 Calendar Days of receipt of retainage, the Contractor shall pay to the subcontractor all such retainage released except for latent defects or warranty.

The Agency will only release retainage for satisfactorily completed portions of the Work represented by Pay Items in the Schedule of Items, or by Pay Items added by Change Order. Work not represented by a Pay Item, but which constitutes part of an uncompleted Pay Item, will not be regarded as satisfactorily completed Work for the purposes of this Subsection.

If retainage has been reduced or eliminated, the Agency reserves the right to protect its interests by retaining amounts from further progress payments at the rates provided in 00195.50(b).

A determination of satisfactory completion of Pay Items or Work or release of retainage shall not be construed as acceptance or approval of the Work and shall not relieve the Contractor of responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

The Contractor shall comply with all applicable legal requirements for withholding and releasing retainage and for prompt payments, including but not limited to those in ORS Chapters 279C and 701, and 49 CFR 26.29.

E. Withholding Payments - In addition to any other rights the Agency may have to withhold payments under other provisions of the Contract, the Engineer may withhold such amounts from progress payments or final payment as may reasonably protect the Agency's interests until the Contractor has:

- Completed all Final Trimming and Cleanup according to 00140.90 and Punch List work according to 00150.90A. An amount of up to twice the Engineer's estimated value of Final Trimming and Punch List work may be withheld.
- Complied with all orders and directives issued by the Engineer under or pursuant to the Contract;
- Corrected or cured its failure to comply with the Contract; and
- Satisfied all legal actions filed against the Agency, the Agency's governing body and its members, and Agency employees that the Contractor is obliged to defend. (see 00170.72)

Notwithstanding ORS 279C.555 or ORS 279C.570 or 00195.50(d), if a Contractor is required to file statements on the prevailing rate of wages, but fails to do so, the Agency will withhold 25% of any amount earned as required in 00170.65.

F. Prompt Payment Policy - Payments shall be made promptly according to ORS 279C.560, ORS 279C.570, ORS 279C.580 and other applicable legal requirements.

00195.60 Advance Allowance for Materials on Hand:

(b) General - If the total value of Materials on Hand is at least $1,000 or the total value of a single class of Materials on Hand is at least $500, the Engineer may authorize an advance allowance for the Materials in the progress payments. The Agency will not make advance allowances on the Materials unless the following three conditions are satisfied:

1. **Request for Advance Allowance** - If Materials on Hand meet the requirement of (2) below, an advance allowance will be made if:

   - A written request for advance allowance for Materials on Hand has been received by the Engineer at least 5 Calendar Days before the pay period cutoff date; and
   - The request is accompanied by written consent of the Contractor's Surety, if required by the Agency.

2. **Stored or Stockpiled Conditions** - The Materials shall have been delivered and/or acceptably stored or stockpiled according to the Specifications and as follows:

   - At the Project Site;
   - On Agency-owned property;
   - On property in the State of Oregon on which the property owner has authorized storage in writing. The written authorization must allow the Agency to enter upon the property and remove Materials for at least 6 months after completion of the Project. The Contractor shall furnish a copy of the written permission to the Agency; or
   - On property outside the State of Oregon on which the property owner has authorized storage in writing, provided that such storage location is authorized in writing by the Engineer. The permit must allow the Agency to enter upon the property and remove Materials for at least 6 months after completion of the Project. The Contractor shall furnish a copy of the written permission to the Agency.

To be eligible for advance allowance, the Materials shall:

- Meet Specification requirements;
- Have the required Materials conformance and quality compliance documents on file with the Engineer (see Section 00165);
- Be in a form ready for incorporation into the Work; and
- Be clearly marked and identified as being specifically fabricated, or produced, and reserved for use on the Project.

3. **Responsibility for Protection** - The Contractor has full control and responsibility for the protection of Materials on Hand from the elements and against damage, loss, theft, or other impairment until the entire Project has been completed and accepted by the Agency.

   If Materials are damaged, lost, stolen, or otherwise impaired while stored, the monetary value advanced for them, if any, will be deducted from the next progress payment.

If these conditions in 00195.60A.1 through 00195.60A.3 have been satisfied, the amount of advance allowance, less the retainage described in 00195.50, will be determined by one of the following methods as elected by the Engineer:

- Net cost to the Contractor of the Materials, f.o.b. the Project Site or other approved site; or
- Price (or portion of it attributable to the Materials), less the cost of incorporating the Materials into the Project, as estimated by the Engineer.

(c) Proof of Payment - The Contractor shall provide the Engineer with proof of payment to the Materials suppliers for purchased Materials prior to the date of the progress payment that includes the advance allowance.

If proof of payment is not provided, sums advanced will be deducted from future progress payments, and the Engineer will not approve further prepayment advance allowance requests.

(d) Terminated Contract - If the Contract is terminated, the Contractor shall provide the Agency immediate possession of all Materials for which advance allowances have been received, as provided above. If, for any reason, immediate possession of the Materials cannot be provided, the Contractor shall immediately refund to the Agency the total amount advanced for the Materials. The Agency may deduct any amount not so refunded from final payment.

00195.70 Payment under Terminated Contract - Payment for Work performed under a Contract that is terminated according to the provisions of 00180.90 will be determined under (a) or (b) of this Subsection.

A. Termination for Default - Upon termination of the Contract for the Contractor's default, the Agency will make no further payment until the Project has been completed. The Agency will make progress payments to the party to whom the Contract is assigned, but may withhold an amount sufficient to cover anticipated Agency costs, as determined by the Engineer, to complete the Project.

Upon completion of the Project, the Engineer will determine the total amount that the defaulting Contractor would have been entitled to receive for the Work, under the terms of the Contract, had the Contractor completed the Work (the "cost of the Work").

If the cost of the Work, less the sum of all amounts previously paid to the Contractor, exceeds the expense incurred by the Agency in completing the Work, including without limitation expense for additional managerial and administrative services, the Agency will pay the excess to the Contractor, subject to the consent of the Contractor's Surety.

If the expense incurred by the Agency in completing the Work exceeds the Contract Amount, the Contractor or the Contractor's Surety shall pay to the Agency the amount of the excess expense.

The Engineer will determine the expense incurred by the Agency and the total amount of Agency damage resulting from the Contractor's default. That determination will be final as provided in 00150.00.

If a termination for default is determined by a court of competent jurisdiction to be unjustified, it shall be deemed a termination for public convenience, and payment to the Contractor will be made as provided in Subsection B below.

B. Termination for Public Convenience:

1. **General** - Full or partial termination of the Contract shall not relieve the Contractor of responsibility for completed or performed Work, or relieve the Contractor's Surety of the obligation for any just claims arising from the completed or performed Work.

2. **Mobilization** - If mobilization is not a separate Pay Item, and payment is not otherwise provided for under the Contract, the Agency may pay the Contractor for mobilization expenses, including moving Equipment to and from the Project Site. If allowed, payment of mobilization expenses will be based on cost documentation submitted by the Contractor to the Engineer.

3. **All Other Work** - The Agency shall pay the Contractor at the unit price for the number of Pay Item units of completed, accepted Work. For units of Pay Items partially completed, payment will be as mutually agreed, or, if not agreed, as the Engineer determines to be fair and equitable. No claim for loss of anticipated profits will be allowed. The Agency will purchase Materials left on hand according to 00195.80.

00195.80 Allowance for Materials Left on Hand:

A. Purchase of Unused Materials - If Materials are delivered to the Project Site, or otherwise acceptably stored at the order of the Engineer, but not incorporated into the Work due to complete or partial elimination of Pay Items, changes in Plans, or termination of the Contract for public convenience according to 00180.90, and it is not commercially feasible for the Contractor to return them for credit or otherwise dispose of them on the open market; the Agency may purchase them according to the formula and conditions specified in Subsection B below.

B. Purchase Formula and Conditions:

1. **Formula** - The Agency will apply the following formula in determining the Contractor's allowance for Materials left on hand:

   Contractor's Actual Cost, plus 5% Overhead Allowance, minus Advance Allowances under 00195.60, but no markup or profit.

2. **Conditions** - The Agency will not purchase the Contractor's Materials left on hand unless the Contractor satisfies the following conditions:

   - Requests the Agency's purchase of unused Materials;
   - Shows acquisition of the Materials according to 00160.10;
   - Shows that the Materials meet Specifications;

- Provides receipts, bills and other records of actual cost of Materials delivered to the designated delivery points; and
- Demonstrates to the satisfaction of the Engineer that the materials cannot be returned for credit or otherwise disposed of on the open market.

00195.90 Final Payment:

A. Final Estimate - As soon as practicable after Final Inspection of the Project, as provided in 00150.90, the Engineer will prepare a final estimate of the quantities of the Pay Items completed. With this estimate of quantities as a base, the total amount due the Contractor will be determined according to the terms of the Contract including without limitation any amounts due for Extra Work performed.

B. Final Payment - The amount of final payment will be the difference between the total amount due the Contractor and the sum of all payments previously made. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

After computation of the final amount due, and after Engineer's issuance of the Third Notification, final payment will be mailed to the Contractor's last known address as shown in the records of the Agency.

Beginning 30 Calendar Days after the date of Third Notification, interest will begin to accrue at the rate established by ORS 279C.570 on any money due and payable to the Contractor as final payment, determined as described above. No interest will be paid on money withheld due to outstanding amounts owed by the Contractor under the provisions of 00170.10.

C. No Waiver of Right to Make Adjustment - The fact that the Agency has made any measurement, estimate, determination or certification either before or after completion of the Project, Final Acceptance, Agency assumption of possession of the Project Site, determination of satisfactory completion of Pay Items or Work or release of retainage under 00195.50(d) or payment for any part of the Work, shall not prevent either party from:

- Showing the true amount and character of the Work;
- Showing that any measurement, estimate, determination or certification is incorrect;
- Recovering from the other party damages that may have been suffered because the other party failed to comply with the Contract.

D. Evidence of Contractor Payments - As a condition of final payment, the Agency may require the Contractor to submit evidence, satisfactory to the Engineer, that all payrolls, material bills, and other indebtedness connected with the project have been paid, except that in case of any disputed indebtedness or liens, the Contractor may submit in lieu of evidence of payment, a surety bond satisfactory to the Agency guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by surety bond.

00195.95 Error in Final Quantities and Amounts:

A. Request for Correction of Compensation - If the Contractor believes the quantities and amounts detailed in the final Contract payment voucher, prepared by the Engineer according to 00195.90, to be incorrect, the Contractor shall submit an itemized statement to the Engineer detailing all proposed corrections.

This statement must be submitted to the Engineer within 90 Calendar Days from the date the voucher was mailed to the Contractor, according to 00195.90B. Any request for compensation not submitted

and supported by an itemized statement within the 90 Calendar Day period will not be paid by the Agency. This does not limit the application of Section 00199.

B. Acceptance or Rejection of Request:

1. **Consideration of Request** - The Engineer will consider and investigate the Contractor's request for correction of compensation submitted according to 00195.95A, and will promptly advise the Contractor of acceptance or rejection of the request in full or in part.

2. **Acceptance of Request** - If the Engineer accepts the Contractor's request(s) in full or in part, the Engineer will prepare a post-final Contract payment voucher, including all accepted corrections, and will forward it to the Contractor.

3. **Rejection of Request** - If the Engineer rejects the request(s) in full, the Engineer will issue a written notice of rejection and mail it to the Contractor.

4. **Contractor Objection to Revised Voucher or Notice of Rejection** - If the Contractor disagrees with the revised voucher or notice of rejection, the Contractor may seek review and resolution according to the procedure specified in 00199.40. If the Contractor fails to submit a request for 00199.40 review within 30 Calendar Days after the Engineer mails a post-final Contract payment voucher or notice of rejection, the Contractor waives all rights to a claim based on errors in quantities and amounts.

If the Engineer rejects the Contractor's request on the basis that the issue was not one that qualified for treatment under this Section, no review according to 00199.40 will be allowed.

Section 00196 - Payment for Extra Work

00196.00 General - Only work not included in the Contract as awarded but deemed by the Engineer to be necessary to complete the Project (see 00140.60) will be paid as Extra Work. Regardless of alterations and changes, any item of Work provided for in the Contract will not constitute Extra Work. Payment for alterations and changes to Work will be made according to 00195.20.

Compensation for Extra Work will be paid only for Work authorized in writing by the Engineer and performed as specified. Work performed before issuance of the Engineer's written authorization shall be at the Contractor's risk. Extra Work will be paid as determined by the Engineer, according to 00196.10 and 00196.20.

00196.10 Negotiated Price - If the Engineer can reasonably determine a price estimate for Extra Work, the Engineer may then give written authorization to the Contractor to begin the Extra Work. As soon as practicable, but within 10 Calendar Days after that authorization, the Contractor shall respond in writing to the Engineer's Extra Work price estimate by submitting to the Engineer an Extra Work price quote. The price quote shall detail the following items related to the Extra Work:

- Types and amounts of Materials
- Hours of Equipment use and hours of labor
- Travel
- Overhead and profit
- Other costs associated with the proposed Extra Work

Pending approval of the price quote, the Engineer will maintain force account records of the Extra Work. As soon as practicable, but within 10 Calendar Days of receipt of a properly supported price quote, the Engineer will review the price quote and advise the Contractor if it is accepted or rejected. The Engineer will not accept a price quote that cannot be justified on a Force Account basis. If the Contractor's price is accepted, the Engineer will issue a Change Order, and the Extra Work will be paid at the accepted price.

00196.20 Force Account - If the Engineer and the Contractor cannot agree on a price for the Extra Work, the Engineer may issue a Force Account Work order requiring the Extra Work to be paid as Force Account Work. Force Account Work records and payment will be made according to Section 00197.

Section 00197 - Payment for Force Account Work

00197.00 Scope - The Materials, Equipment and Labor rates and procedures established in this Section apply only to Extra Work ordered by the Engineer to be performed as Force Account Work.

00197.01 Extra Work on a Force Account Basis - Before ordering Force Account Work, the Engineer will discuss the proposed work with the Contractor, and will seek the Contractor's comments and advice concerning the formulation of Force Account Work specifications. The Engineer is not bound by the Contractor's comments and advice, and has final authority to:

- Determine and direct the Materials, Equipment and Labor to be used on the approved Force Account Work; and
- Determine the time of the Contractor's performance of the ordered Force Account Work.

Force account work performed by subcontractors will be measured and paid for on the same basis and in the same manner as force account work performed directly by the Contractor.

If the Engineer orders the performance of Extra Work as Force Account Work, the Engineer will record, on a daily basis, the Materials, Equipment, and Labor used for the Force Account Work during that day. The Engineer and the Contractor shall sign the record daily to indicate agreement on the Materials, Equipment, and Labor used for the Force Account Work performed on that day.

The following shall be reflected on the daily record:

- Materials used in the Force Account Work as directed by the Engineer, except those furnished and paid under rental rates for use of Equipment;
- Equipment which the Engineer considers necessary to perform the Force Account Work. Equipment hours will be recorded to the nearest quarter hour;
- Labor costs, including that of Equipment operators and supervisors in direct charge of the specific operations while engaged in the Force Account Work; and
- The Engineer's and Contractor's signatures confirming its accuracy.

00197.10 Materials:

A. General - The Contractor will be paid for Materials actually used in the Force Account Work as directed by the Engineer, except for those furnished and paid for under rental rates included with the use of Equipment. Payments will be at actual cost, including transportation costs to the specified location, from the supplier to the purchaser, whether the purchaser is the Contractor, a Subcontractor, or other forces. All costs are subject to the provisions of this Subsection.

B. Trade Discount - If a commercial trade discount is offered or available to the purchaser, it shall be credited to the Agency, even though the discount may not have actually been taken. The Agency will not take any discounts for prompt or early payment, whether or not offered or taken.

C. Not Directly Purchased From Supplier - If Materials cannot be obtained by direct purchase from and direct billing by the supplier, the cost shall be considered to be the price billed to the purchaser less commercial trade discounts, as determined by the Engineer, but not more than the purchaser paid for the Materials. No markup other than actual handling costs will be permitted**.**

D. Purchaser-Owned Source - If Materials are obtained from a supply or source wholly or partly owned by the purchaser, the cost shall not exceed the price paid by the purchaser for similar Materials furnished

from that source on Pay Items, or the current wholesale price for the Materials delivered to the Project Site, whichever is lower.

00197.20 Equipment:

A. General - Equipment approved by the Engineer to perform the Force Account Work will be eligible for payment at the established rates only during the hours it is operated or on standby if so ordered by the Engineer. Equipment hours will be recorded on the daily record to the nearest quarter hour.

Except as modified by these provisions, Equipment use approved by the Engineer will be paid at the rental rates given in the most current edition of the Rental Rate Blue Books for Construction Equipment ("Blue Book"), Volumes 1, 2, and 3, published by Penton Media, Inc., and available from EquipmentWatch (phone 1-800-669-3282).

B. Equipment Description - On the billing form for Equipment costs, the Contractor shall submit to the Engineer sufficient information for each piece of Equipment and its attachments to enable the Engineer to determine the proper rental rate from the Blue Book.

C. Rental Rates (without Operator):

1. **Rental Rate Formula** - Rental rates for Equipment will be paid on an hourly basis for Equipment and for attachments according to the following formula:

$$\text{Hourly Rate} = \frac{\text{Monthly Base Rate} \times \text{Rate Adjustment Factor}}{176 \text{ hours/month}} + \text{Hourly Operating Rate}$$

Some attachments are considered "standard Equipment" and are already included in the monthly base rate for the Equipment. That information can be obtained from EquipmentWatch.

2. **Monthly Base Rate** - The monthly base rate used above for the machinery and for attachments represents the major costs of Equipment ownership, such as depreciation, interest, taxes, insurance, storage, and major repairs.

3. **Rate Adjustment Factor** - The rate adjustment factor used above will be determined by applying only the Model Year Adjustment to the Blue Book Rates. The Regional and User Defined Ownership/Operating Adjustments shall not apply.

4. **Hourly Operating Rate** - The hourly operating rate used above for the machinery and for attachments represents the major costs of Equipment operations, such as fuel and oil, lubrications, field repairs, tires or ground engaging components, and expendable parts.

5. **Limitations -** If multiple attachments are included with the rental Equipment, and are not considered "standard Equipment", only the attachment having the higher rental rate will be eligible for payment, provided the attachment has been approved by the Engineer as necessary to the Force Account Work.

Rental will not be allowed for small tools that have a daily rental rate of less than $5, or for unlisted Equipment that has a fair market value of $400 or less.

The above rates apply to approved Equipment in good working condition. Equipment not in good working condition, or larger than required to efficiently perform the work, may be rejected by the Engineer or accepted and paid for at reduced rates.

D. Moving Equipment - If it is necessary to transport Equipment located beyond the Project Site exclusively for Force Account Work, the actual cost to transport the Equipment to, and return it from, its On-Site Work location will be allowed as an additional item of expense. However, the return cost will not exceed the original delivery cost. These costs will not be allowed for Equipment that is brought to the Project Site for Force Account Work if the Equipment is also used on Pay Item or related Work.

If transportation of such Equipment is by common carrier, payment will be made in the amount paid for the freight. No markups will be allowed on common carrier transportation costs. If the Equipment is hauled with the Contractor's own forces, transportation costs will include the rental rate of the hauling unit and the hauling unit operator's wage. If Equipment is transferred under its own power, the rental rate allowed for transportation time will be 75% of the appropriate hourly rate for the Equipment, without attachments, plus the Equipment operator's wage.

E. Standby Time - If ordered by the Engineer, standby time will be paid at 40% of the hourly rental rate calculated according to this Subsection, excluding the hourly operating rate. Rates for standby time that are calculated at less than $1 per hour will not be paid. Payment will be limited to not more than 8 hours in a 24-hour period or 40 hours in a 1 week period. Standby Time provisions shall also apply to Section 00195 – Payment.

F. Blue Book Omissions - If a rental rate has not been established in the Blue Book, the Contractor may:

- If approved by the Engineer, use the rate of the most similar model found in the Blue Book, considering such characteristics as manufacturer, capacity, horsepower, age and fuel type;
- Request EquipmentWatch to furnish a written response for a rental rate on the Equipment, which shall be presented to the Engineer for approval; or
- Request that the Engineer establish a rental rate.

G. Outside Rental Equipment - If Contractor-owned or Subcontractor-owned Equipment is not available, and Equipment is rented from outside sources, payment will be based on the actual paid invoice. Approval of the Engineer to rent from outside sources must be obtained prior to renting the equipment.

If the invoice specifies that rental rate does not include fuel, lubricants, field repairs, and servicing, an amount equal to the Blue Book hourly operating cost may be added for those items that were excluded.

The Agency may reduce the payment when the invoice amount plus allowance is higher than the amount authorized under C through F of this Subsection.

00197.30 Labor - The Contractor will be paid for all labor engaged directly on Force Account Work, including Equipment operators and supervisors in direct charge of the specific force account operations, as follows:

A. Wages - The actual wages paid to laborers and supervisors, if those wages are paid at rates not more than those for comparable labor currently employed on the Project, or at the recognized, current, prevailing rates in the locality of the Project.

B. Required Contributions - The actual cost of industrial accident insurance, unemployment compensation contributions, payroll transit district taxes, and social security for old age assistance contributions incurred or required under statutory law and these Specifications. The actual cost of industrial accident insurance is the National Council on Compensation Insurance (NCCI) rate for the assigned risk pool for the appropriate work class multiplied by the experience modification factor for the Contractor.

C. Required Benefits - The actual amount paid to, or on behalf of, workers as per diem and travel allowances, health and welfare benefits, pension fund benefits, or other benefits when such other benefits are required by a collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the Project.

D. Overtime - No overtime will be compensated unless authorized in advance of performing the Work by the Engineer.

00197.80 Percentage Allowances - To the Contractor's actual costs incurred, as limited in this Section 00197, amounts equal to a percentage markup of such costs will be allowed and paid to the Contractor as follows:

Subsection	Percent
00197.10 Materials	17
00197.20 Equipment	17
00197.30 Labor	22

When a Subcontractor performs ordered Force Account Work, the Contractor will be allowed a supplemental markup of 8% on each Force Account Work order.

These allowances made to the Contractor will constitute complete compensation for bonds, insurance, overhead, general and administrative expense, profit, and all other Force Account Work costs that were incurred by the Contractor, or by other forces that the Contractor furnished. No other reimbursement, compensation, or payment will be made.

00197.90 Billings - Billings for Force Account Work by the Contractor shall be submitted for the Engineer's approval on forms provided by the Agency or approved by the Engineer. Billings for Materials (other than Incidental items out of the inventory of the Contractor or Subcontractors), rental Equipment from sources other than the Contractor or Subcontractors, and Special Services, shall be accompanied by copies of invoices for the goods and services. The invoices shall be fully itemized showing dates, quantities, unit prices, and complete descriptions of goods and services provided. Invoices for amounts of $10 or less per invoice are not required, unless requested by the Engineer.

Costs included on the billings shall comply with 00197.01 and 00197.10 through 00197.30. When a billing for Force Account Work has been paid at the Project level, no further corrections will be made because of further review if those corrections amount to less than $10.

Section 00199 - Disagreements, Protests, and Claims

00199.00 General - This Section details the process through which the parties agree to resolve any disagreement concerning additional compensation or concerning a combination of additional compensation and Contract Time. (See 00180.80 for disagreements and claims concerning additional Contract Time only, and 00195.95 for disagreements and claims concerning correction of final compensation.) The Agency will not consider direct disagreements, protests, or claims from subcontractors, Suppliers, or any other Entity not a party to the Contract.

00199.10 Procedure for Resolving Disagreements - When disagreements occur concerning additional compensation or a combination of additional compensation and Contract Time, the Contractor shall first pursue resolution through the Engineer of all issues in the dispute, including without limitation the items to be included in the written notice in 00199.20. If the discussion fails to provide satisfactory resolution of the disagreement, the Contractor shall follow the protest procedures outlined in 00199.20. If the Engineer denies all or part of the Contractor's protest, and the Contractor desires to further pursue the issues, the Contractor shall submit a claim for processing according to 00199.30.

00199.15 Inappropriate Protest or Claim - It shall be presumed that the Contractor submits a protest or claim for additional compensation in good faith, based upon facts which reasonably support the Contractor's position and with full knowledge and understanding of the injury done to the Agency when notice of differing Project Site conditions or claims for additional compensation are not submitted in a timely manner as required under the Contract. Accordingly, the submission of a protest or claim without the concurrent submission of evidence that reasonably supports the protest or claim, or the submission of a protest or claim in an untimely manner will constitute a waiver of the protest or claim.

00199.20 Protest Procedure - f the Contractor disagrees with anything required in a Change Order or other written or oral order from the Engineer, including any direction, instruction, interpretation, or determination, or if the Contractor asserts a disagreement or dispute on any other basis, except 0195.95, that, in the Contractor's opinion, entitles or would entitle the Contractor to additional compensation or a combination of compensation and Contract Time, the Contractor shall do all of the following in order to pursue a protest and preserve its claim:

A. Oral Notice - Give oral notice of protest to the Engineer and outline the areas of disagreement before starting or continuing the protested Work.

B. Written Confirmation of Oral Notice – Not later than the end of the next business day following the day that oral notice of protest is given, deliver written documentation to the Engineer of the oral notice that includes the notice of protest and the areas of disagreement.

C. Written Notice - File a proper written notice of protest with the Engineer within 7 Calendar Days after receiving the protested order. In the notice the Contractor shall:

- Describe the acts or omissions of the Agency or its agents that allegedly caused or may cause damage to the Contractor or to the Project, citing specific facts, persons, dates and Work involved;
- Describe the Contractor's proposed alternative to the Work ordered, if any, which will avoid damage to Contractor or to the Project;
- Describe the nature of the damages;
- Cite the specific Contract provision(s), if any, that support the protest;
- Include the estimated dollar cost, if any, of the protested Work, and furnish a list of estimated Materials, Equipment and labor for which the Contractor might request additional compensation; and
- If additional compensation is estimated to be due, include the estimated amount of additional time required, if any.

FAILURE TO COMPLY WITH THIS NOTICE REQUIREMENT RENDERS THE NOTICE IMPROPER AND SHALL CONSTITUTE A WAIVER OF ANY CLAIM FOR ADDITIONAL COMPENSATION OR A COMBINATION OF ADDITIONAL COMPENSATION AND CONTRACT TIME FOR ANY PART OF THE PROTESTED WORK.

D. Engineer's Record and Response - The Engineer will file a copy of each written notice of protest in the Project records and will issue a written response to the protest within seven (7) Work Days of receipt of a timely filed written notice of protest. The Engineer has no responsibility to evaluate the protest unless the Contractor has timely filed a proper notice submitting all of the above information.

E. Final Documentation of Claim - Within 60 Calendar Days following completion of the protested work, Contractor shall provide the Engineer with complete documentation of protested work, listing exact materials, equipment and labor used for the work and the dollar amount requested for each. If the claim is accepted, no additional compensation will be awarded based on documentation submitted after this deadline. If the claim is denied or if the Contractor is not satisfied with the decision by the Engineer, the amount claimed by the Contractor in any subsequent Step or proceeding may not exceed the dollar amount requested under this subsection.

F. Records - Keep complete records of all costs and time incurred throughout the protested Work, and allow the Engineer access to those and other supporting records. Provide daily records of protested Work, on a weekly basis, on a schedule to be set by agreement with the Engineer.

G. Comparison of Records - Provide the Engineer adequate facilities for keeping cost and time records of the protested Work. The Contractor and the Engineer will compare records and either bring them into agreement at the end of each day, or record and attempt to explain any differences.

H. Work to Proceed - In spite of any protest, proceed promptly with the Work ordered by the Engineer.

I. Evaluation of Protest - The Engineer has no responsibility for evaluating a protest that is not timely filed, or for which adequate supporting documentation has not been made available to the Engineer. Provided the procedures above are followed, the Engineer will promptly evaluate all protests, after the Contractor has fully complied with the requirements described in 00199.20C, Written Notice. If the protest is denied, the Engineer will notify the Contractor in writing of the reasons for full or partial denial. If a protest is found to be valid, the Engineer will, within a reasonable time, make an equitable adjustment of the Contract. Adjustment of time will be evaluated according to 00180.80.

The Engineer has no responsibility for evaluating and may reject a protest that does not comply with 00199.20B. If the protest is rejected, the Engineer will notify the Contractor in writing of the reasons for rejection.

J. Protest Evaluation by Third Party Neutral - If the Engineer agrees that the Contractor has fully complied with the requirements described in 00199.20(C), and if the Engineer fully or partially denies, in writing, the Contractor's protest according to 00199.20(E), the Contractor may request that a mutually selected Third Party Neutral review the protest. Procedures for selecting, using, and paying for the cost of the Third Party Neutral will be specified by Change Order.

If the Contractor does not accept the Engineer's evaluation of the protest, or either the Contractor or Engineer disagrees with the resolution recommended by the Third Party Neutral, the Contractor may pursue a claim as described in 00199.30.

00199.30 Claims Procedure:

A. General - If the Contractor believes that additional compensation is due, or a combination of additional compensation and Contract Time, and has pursued and exhausted all the procedures provided in 00199.10 and 00199.20 to resolve a disagreement and protest, the Contractor may file a claim.

The Agency's Contract is with the Contractor. There is no contractual relationship between the Agency and any subcontractors, Suppliers or any Entity other than the Contractor. It is the Contractor's responsibility to fully evaluate any claim before presenting it to the Agency. In addition, when a claim includes Work done or costs incurred by any subcontractors, Suppliers, or any Entity other than the Contractor, the Contractor remains solely responsible for presenting the claim to the Agency.

Claims that include Work done or costs incurred by subcontractors, Suppliers, or any Entity other than the Contractor will not be considered by the Agency unless the Contractor has:

- Completed and provided its own written evaluation of the claim;
- Verified by its own independent review and evaluation of the amount of compensation sought; and
- Certified the claim in accordance with 00199.30B (Part 10).

B. Claims Requirements - At any time during the progress of the Work, but not later than 45 Calendar Days following the date of the Second Notification, the Contractor shall submit to the Engineer in writing, claims for additional compensation or a combination of additional compensation and Contract Time additional to that specified in the Contract. For a claim not submitted within the 45 day limit, that has not met the requirements of 00199.20, or is not filed as provided in 00199.30, the Contractor waives any claim for additional compensation or for additional compensation and Contract Time, and the Agency may reject the claim.

Written claims to the Engineer or the Agency by the Contractor shall be delivered to the Agency address shown in the Public Improvement Contract, unless a different address is agreed to by the Engineer, and shall be delivered:

- By U.S. Postal Service first class mail or priority mail (which at the sender's option may include certified or registered mail return receipt requested); or
- By overnight delivery service of a private industry courier.
- Claims will be considered as having been received by the Agency:
- At the time of actual receipt or 7 Calendar Days after the postmarked date when deposited for delivery by first class or priority mail, whichever is earlier; or
- At the time of actual receipt or 3 Calendar Days after deposit with a private industry courier for overnight delivery service, whichever is earlier.

The Agency reserves the right at any time and at any step in the claim decision or review process to request additional information, records or documentation related to the claim or the Contract either directly or through agents working toward resolution of the disputed or claimed events and issues.

Claims shall be made in writing, and shall include all information, records and documentation necessary for the Agency to properly and completely evaluate the claim.

To be considered, claims for additional compensation, or for additional compensation and Contract Time, shall be completed according to 00199.30 and shall be submitted with the required information and in the format below and labeled as required below for each claimed issue:

(Part 1) Summary (label page 1.1 through page 1.X) - In the summary, include a detailed, factual statement of the claim for additional compensation and Contract Time, if any, with necessary dates and locations of Work involved in the claim and the dates of when the event arose. Also include detailed facts supporting the Contractor's position relative to the Engineer's decision (see 00199.20(f));

(Part 2) Proof of notice (label page 2.1 through page 2.X) - Submit a copy of the written notice, with all attachments, that was given to the Agency. Include the date when that written notice and the date when oral notice was given:

(Part 3) Copies of the Contract Specifications that support the Contractor's claim (label page 3.1 through page 3.X);

(Part 4) Theory of entitlement supporting the claim (label page 4.1 through page 4.X) - Include a narrative of how or why the specific Contract Specifications support the claim and a statement of the reasons why such Specifications support the claim;

(Part 5) Itemized list of claimed amounts (label page 5.1 through page 5.X) - Claimed damages that resulted from the event with a narrative of the theories and records and documents used to arrive at the value of the damages;

(Part 6) Additional Contract Time requests (label page 6.1 through page 6.X) - If the claim is for a combination of additional compensation and Contract Time, submit a copy of the schedule that was in effect when the event occurred and a detailed narrative which explains how the event impacted Contract Time. In addition, if an Agency-caused delay is claimed:

- Include the specific days and dates under claim;
- Provide detailed facts about the specific acts or omissions of the Agency that allegedly caused the delay, and the specific reasons why the resulting delay was unreasonable; and
- Provide a schedule evaluation that accurately describes the impacts of the claimed delay.
- Also see 00180.80 for additional requirements regarding claims for Contract Time and causes that are eligible and ineligible for consideration;

(Part 7) Copies of actual expense records (label page 7.1 through page 7.X) - Include documents that contain the detailed records and which support and total to the exact amount of additional compensation sought. Include the information and calculations necessary to support that amount. That amount may be calculated on the basis of Section 00197, if applicable, or may be calculated using direct and indirect costs presented in the following categories:

- Direct Materials;
- Direct Equipment. The rate claimed for each piece of Equipment shall not exceed the actual cost. In the absence of actual Equipment costs, the Equipment rates shall not exceed 75 percent of those calculated under the provisions of 00197.20. For each piece of Equipment, the Contractor shall include a detailed description of the Equipment and attachments, specific days and dates of use or standby, and specific hours of use or standby;
- Direct labor;
- Job overhead;
- General and administrative overhead; and
- Other categories as specified by the Contractor or the Agency;

(Part 8) Supporting records and documents (label page 8.1 through page 8.X) - Include copies of, or excerpts from the following:

- Any documents that support the claim, such as manuals standard to the industry and used by the Contractor; and
- Any daily reports or diaries related to the event, photographs or media that help explain the issue or event (optional), or all other information the Contractor chooses to provide (optional);

(Part 9) Certification (label page 9.1 through 9.X) - A certified statement, signed by a person authorized to execute Change Orders, by the Contractor, subcontractor, Supplier, or Entity, originating the claim, as to the validity of facts and costs with the following certification:

Under penalty of law for perjury or falsification, the undersigned, (Name), (Title), (Company) certifies that this claim for additional compensation for Work on the Contract is a true statement of the actual costs incurred (in the amount of $_____, exclusive of interest) and is fully documented and supported under the Contract between the parties.

Signature: _____
Date: _____, *20___*

Subscribed and sworn before me this ____ day of _____, 20___

_____
Notary Public
My commission expires _____.

(Part 10) Contractor evaluation of a lower tier claim (label page 10.1 through 10.X) - If the claim includes Work done or costs incurred by any subcontractors, Suppliers, or any Entity other than the Contractor, the following are required:

- Data required by the other Subsections of 00199.30B;
- Copies of the Contractor's, subcontractor's, Supplier's and Entity's, at all tiers above the level of which the claim originates, separate evaluation of entitlement;
- Copies of the Contractor's, subcontractor's, Supplier's and Entity's, at all tiers above the level of which the claim originates, independent verification and evaluation of the amount of damages sought; and
- A person authorized to execute Change Orders on behalf of the Contractor, subcontractor, Supplier and Entity, at all tiers above the level of which the claim originates, must sign a statement with the following certification:

Under penalty of law for perjury or falsification, the undersigned, (Name) (Title), (Company) certifies that this claim originating from the subcontractor, Supplier or Entity (Company) for additional compensation for Work on the Contract is a reasonable statement, independently verified, of the costs incurred (in the amount of $_____, exclusive of interest) and is fully documented and supported under the Contract between the parties.

Signature: _____
Date: _____, *20___*

Subscribed and sworn before me this ____ day of _____, 20__

_____
Notary Public
My commission expires _____.

If the Engineer determines that additional information, records or documentation is needed to allow proper evaluation of the claim submittal, the Engineer will request the information, records or documentation.

The Contractor shall submit to the Engineer within 14 Calendar Days, or as otherwise agreed by the parties, the required additional information, records and documentation.
If the Engineer determines that the claim submittal with the additional information, records and documentation submitted is incomplete and not accepted as a claim, the Engineer will notify the Contractor in writing and the submittal will be rejected and will not be considered under 00199.40.

C. Records Requirements - The Contractor shall comply with 00170.07.

D. Compliance Required - Full compliance by the Contractor with the provisions of this Section is a condition precedent to the commencement of any lawsuit by the Contractor to enforce any claim.

00199.40 Claim Decision; Review; Exhaustion of Administrative Remedies - The Agency intends to resolve all claims at the lowest possible administrative level. The Engineer will also determine whether multiple claims should be advanced separately or together.

If the Engineer denies the claim for additional compensation or a combination of additional compensation and Contract Time, in full or in part, according to 00199.40A, the Contractor may request review of the denial. The disputed claim for additional compensation or a combination of additional compensation and Contract Time may then be resolved, in full or in part, at any of the progressive steps of claim review procedure as specified in (b) through (c) of this Subsection.

If the Engineer has denied a claim, in full or in part, for Contract Time only according to 00180.80, or has denied a claim, in full or in part, for correction of final compensation according to 00195.95, those disputed claims may then be resolved, in full or in part, at either of the two progressive steps of claim review procedure as specified in (b) through (c) of this Subsection.

A person authorized by the Contractor to execute Change Orders on behalf of the Contractor must be present and attend all claim hearings. For all claims, all of the actions and review under each step of the review process shall occur before the review can be advanced to the next higher step.

If, at any step in the claim decision or review process, the Contractor fails to promptly submit requested information or documentation that the Agency deems necessary to analyze the claim, the Contractor is deemed to have waived its right to further review, and the claim will not be considered properly filed and preserved.

A. Decision by the Engineer - The Engineer will, as soon as practicable, consider, investigate, and evaluate a Contractor's claim for additional compensation, or for a combination of additional compensation and Contract Time, if submitted as required by 00199.30.

Once the Engineer determines the Agency is in receipt of a properly submitted claim, the Engineer will arrange a meeting, within 21 Calendar Days or as otherwise agreed by the parties, with the Contractor in order to present the claim for formal review and discussion.

If the Engineer determines that the Contractor must furnish additional information, records or documentation to allow proper evaluation of the claim, the Engineer will schedule a second meeting, to be held within 14 Calendar Days or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The Engineer will provide a written decision to the Contractor within 30 Calendar Days of the last Engineer-level meeting.

If the Contractor does not accept the Engineer's decision, the Contractor may, within 10 Calendar Days of receipt of the written decision, request in writing that the Engineer arrange a review at Step 1 (see (b) below).

B. Step 1: Public Works Director Level Review - The Contractor shall request that the Engineer arrange a meeting with the Public Works Director or the Public Works Director's designee, as determined by the Public Works Director, in order to present the denied or partially denied claim for formal review and discussion. The meeting will take place within 21 Calendar Days of the Agency's receipt of the request, or as otherwise agreed by the parties.

If the Public Works Director (or designee) determines that the Contractor must furnish additional information, records or documentation to allow proper evaluation of the claim, the Public Works Director (or designee) will schedule a second meeting, to be held within 14 Calendar Days, or as otherwise agreed by the parties, at which the Contractor shall present the requested information, records and documentation.

The Public Works Director (or designee) will provide a written decision to the Contractor within 30 Calendar Days of the last meeting with the Public Works Director (or designee).

The claim is subject to 00199.60, if not all of the records requested by the Public Works Director (or designee) were furnished. If applicable, advancement of the claim is subject to the provisions of 00199.60 regarding waiver and dismissal of the claim or portions of the claim.

If the Contractor does not accept the decision, the Contractor may, within 180 Calendar Days from the date of receipt of the Public Works Director (or designee) written decision or within 90 Calendar Days of the date of Second Notification, whichever is later, initiate Step 2 as set forth in subsection C below.

C. Step 2: Arbitration and Litigation - The Contractor must follow each step in order, and exhaust all available administrative remedies before resort to arbitration and litigation. Litigation of a claim that cannot be resolved in Step 1 shall be initiated by filing a complaint in the Circuit Court for the State of Oregon in the county where the Agency's main office is located that contains a stipulation to arbitration under ORS 36.410. The claim and all cross and counter-claims filed in response to the complaint shall be submitted to the Court Arbitration Program set forth in ORS 36.400 to 36.425, Chapter 13 of the Oregon Uniform Trial Court Rules and the Circuit Court supplemental local rules concerning arbitration. Either party may seek, and shall be entitled to, an order directing the other party to submit to arbitration as provided herein and to judgment for its costs, expenses and attorney fees in obtaining and enforcing the order

In no event shall this Subsection be construed as a waiver by the Agency or by the State of Oregon on any form of defense or immunity, whether sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States or otherwise, from any claim or from the jurisdiction of any court.

D. Payment of Costs, Expenses and Attorney's Fees - The prevailing party shall be entitled to an award for reasonable costs and expenses incurred after the initiation of Step 2, including costs and expenses incurred for arbitration, trial de novo and on appeal. Costs and Expenses shall include, but shall not be limited to, reasonable attorney fees and expenses, arbitrator fees and expenses, and costs of discovery.

As used in this subsection 00199.40D, "prevailing party" for an arbitration award means (1) a Contractor who has received an arbitration award, exclusive of interest, costs and expenses, that is more than the dollar amount claimed by the Contractor in its Final Documentation of Claim under 00199.20(d) or (2) the Agency if there is no arbitration award to the Contractor or if the arbitration award to the Contractor, exclusive of interest, costs and expenses, is less than the dollar amount of the award in the Step 1 decision. For all other arbitration awards, there shall not be a "prevailing party."

The award of costs and expenses after trial de novo shall be made as provided for in ORS 36.425. The award of costs and expenses after appeal from a judgment entered after trial de novo shall be to the prevailing party designated as such by the appeals court.

The Contractor shall comply with 00170.00.

00199.50 Mediation - Notwithstanding the formal claims procedure specified above, the parties may enter into nonbinding mediation by mutual agreement at any time, in which case the parties may also agree to suspend the time requirements in Section 00199 pending the outcome of the mediation process. The rules, time and place for mediation, as well as selection of the mediator, shall be established by mutual agreement. Costs shall be divided equally between the Contractor and the Agency. Either party may terminate mediation at any time upon 5 Calendar Days notice to the other, after which the time requirements of Section 00199 shall be automatically reinstated and shall resume from the point at which the time requirements were suspended.

00199.60 Review of Determination Regarding Records - If not all of the records requested by the Agency under 00199.40C Step 2 were provided, then the Agency will determine:

- If the records are of the type described in 00170.07; and
- If the records have not been maintained or the records, or access to the records, has not been provided to the Agency as required by 00170.07 and this Section; and
- If the records are material and necessary for proper evaluation of part or all of the claim; and
- The portions of the claim for which the records are material and necessary for proper evaluation.

If the Agency makes the foregoing determinations, then subject to the review process described below, all portions of the claim for which the Agency determined the records are material and necessary for proper evaluation are immediately waived and irrevocably dismissed.

Even if the records have not been maintained or the records, or access to the records, have not been provided to the Agency in a given instance, the Agency may determine that sufficient records have been provided for the Agency to properly evaluate the claim in that instance. If the Agency makes this determination, the claim or portions of the claim will not be waived or dismissed under this provision.

If the Contractor does not accept the Agency written determination that the records are material and necessary for proper evaluation of part or all of the claim, and the portions of the claim for which the records are material and necessary, the Contractor may, within 14 Calendar Days of receipt of the Agency determination, request, in writing, a review of such determination by the Public Works Director (or designee). If the Contractor does not request a review of the Agency determination, the Agency determination shall then become the Agency's final determination as of the expiration of the time limit to request review.

If the Contractor requests the review, the Public Works Director (or designee)will schedule a review meeting within 14 Calendar Days, or as otherwise agreed by the parties, of when the Public Works Director (or designee)receives the written review request. The Agency and the Contractor will each have an opportunity to explain their respective positions at the review meeting in a manner determined by the Public Works Director (or designee).

Within 10 Calendar Days of the review meeting, the Public Works Director (or designee)will issue a written proposed finding of whether the records not maintained or not provided to the Agency, or for which access was not provided to the Agency, are material and necessary for proper evaluation of part or all of the claim. If the Public Works Director (or designee)makes that finding, then the Public Works Director (or designee)will also make a proposed written finding as to what portions of the claim the records are material and necessary and, therefore, waived and irrevocably dismissed.

Even if the records have not been maintained or the records, or access to the records, have not been provided to the Agency in a given instance, the Public Works Director (or designee) may determine that sufficient records have been provided for the Agency to properly evaluate the claim in that instance. If the Public Works Director (or designee) makes this determination, then the claim or portions of the claim will not be waived or dismissed under this provision.

The Public Works Director's (or designee) findings will be submitted to the Contractor. The Public Works Director's (or designee) findings are the Agency's final determination.

If the Agency's final determination is that the records are material and necessary for proper evaluation of part or all of the claim, then the claim or that portion of the claim for which the records are material and necessary is waived and irrevocably dismissed, unless the Contractor provides the records, or access to the records, to the Agency within 5 Calendar Days of the Agency's final determination. If the Contractor provides the records, or access to the records, within this time limit, the Agency will schedule a meeting with the Contractor within 14 Calendar Days or as otherwise agreed by the parties, to discuss the records.

The Agency's final determination that records are material and necessary for proper evaluation of part or all of the claim, and the Agency's final determination of the portions of the claim for which the records are material and necessary, shall be final and binding.

If the entire claim is waived and irrevocably dismissed pursuant to the Agency's final determination there will be no further decision by the Agency on the claim or further review of the claim under 00199.40 and the claim will not be eligible for mediation under 00199.50. If only portions of the claim are waived and irrevocably dismissed pursuant to the Agency's final determination, the Agency will provide a written decision to the Contractor regarding the remaining portions of the claim within 30 Calendar Days of the final Step 2 meeting, or the Agency's final determination regarding the records, whichever is later. There will be no further decision by the Agency on or further review under 00199.40 of the portions of the claim waived and irrevocably dismissed pursuant to Agency's final determination and those portions will not be eligible for mediation under 00199.50.

WORK TO BE DONE

The work to be done under this contract consists of installing a new accessible dock and gangway including six new steel piles, constructing accessible parking stalls, accessible curb ramp, concrete sidewalk, enhancement and mitigation planting, and other miscellaneous improvements as shown on the plans entitled:
miscellaneous improvements as shown on the construction plans entitled:

COOK PARK ACCESSIBLE DOCK IMPROVEMENTS (CIP NO. 92068)

APPLICABLE SPECIFICATIONS

The Standard Specifications, which are applicable to the Work on this project, are:

- APWA/ODOT 2024 edition of the "Oregon Standard Specifications for Construction"
- Part 00100 General Conditions for the City of Tigard (Attachment J of the Contract Documents)
- Special Provisions

All number references in these special provisions shall be understood to refer to the Sections and Subsections of the Standard Specifications and Supplemental Standard Specifications bearing like numbers and to Sections and Subsections contained herein in their entirety. Standard Specifications not specifically addressed in these Special Provisions shall be complied with if applicable.

SECTION 00110 - ORGANIZATION, CONVENTIONS, ABBREVIATIONS AND DEFINITIONS

Comply with Section 00110 of the City of Tigard General Conditions.

00110.20 Definitions – Replace the definition of Public Traffic with the following:

- Public Traffic – Vehicular or pedestrian movement, not associated with the Contract Work, on a public way and within Cook Park property.

SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES

Comply with Section 00120 of the City of Tigard General Conditions, modified as follows:

00120.01 Receipt of Bids; Opening – Replace this subsection, except for the subsection number and title, with the following:

Bidders will submit Bids by email before the deadline stated in the Advertisement for Bid.

00120.02 Prequalification of Bidders – Delete this subsection.

00120.03 Request for Solicitation Documents – Replace this subsection, except for the subsection number and title, with the following:

Informational Plans and Specifications are available online at www.tigard-or.gov/business/bids.php

Copies of the Oregon Standard Specifications are available for download at: https://www.oregon.gov/odot/Business/Specs/2024_STANDARD_SPECIFICATIONS.pdf

a). Bids - Bidders must obtain Solicitation Documents online at **www.tigard-or.gov/business/bids.php**. Each request must include both the name of the person ordering or obtaining the Solicitation Documents, and the name of the Entity intending to use them. (The City will add the name of the Entity intending to use the Solicitation Documents to the list of Holders of Bidding Plans.) Bidders are cautioned that only Solicitation Documents obtained from the City of Tigard may be used to submit Bids.

b). Standards and Specifications - The work embraced herein shall be done in accordance with the following standards and specifications.

2024 Oregon Standard Specifications for Construction…….Available from ODOT
The current edition of the Oregon Standard Drawings as the date of the Bid
City of Tigard Design Standards……download from the City's web site
City of Tigard Details……included
CWS Design and Construction Standards R&O 19-22……...www.cleanwaterservices.org
DSL Permit No. 64652RF……..included
DEQ 1994-00897 65622_Memorandum……included
Army Corps – NWP-1994-897……..……included

Copies of these standards and specifications can be found at the locations stated above.

SECTION 00130 - AWARD AND EXECUTION OF CONTRACT

Comply with Section 00130 of the City of Tigard General Conditions.

SECTION 00150 – CONTROL OF WORK

00150.02 Inspector's Authority and Duties – Add the following to the third bulleted item of the first paragraph:

The inspector may orally suspend work temporarily, until the issue in question can be referred to the Engineer for decision for:

- Unsafe practice
- Non-compliance with the Contract Documents
- Non-compliance with erosion control requirements
- Non-compliance with hazardous material handling rules and regulations
- Non-compliance with air, noise, and water pollution control

00150.10(a) Order of Precedence - Add the following bulleted item before the bullet 'Standard Drawings;':

- Supplemental Reports titled 'Geotechnical Engineering Report City of Tigard – Accessible Boat Launch at Cook Park Tigard, Oregon' by Shannon & Wilson dated January 2024; 'No-Rise Analysis and Certification for COOK PARK ACCESSIBLE DOCK IMPROVEMENTS, Tigard, Oregon, by West Consultants dated 22 January 2024; and 'Natural Resource Assessment Cook Park Accessible River Access and Dock Replacement Project' by Pacific Habitat Services, Inc. dated November 28, 2023.

00150.50(b) Agency Responsibilities - Replace this subsection, except for the subsection number and title, with the following:

The Agency has listed the known utilities, their owners, and contact information. The Plans will not normally show the anticipated new location of utilities that have been or will be adjusted.

00150.50(c) Contractor's Responsibilities - Add the following bulleted items:

- Meet with each utility agency prior to the preconstruction meeting that has or may have utilities within the limits of the Work on this Project.
- Check on-site locations of each utility against known location data, if any, and notify the utility of any discrepancies before starting the Work.

Add the following:

In accepting the above responsibilities, both stated and implied, the Contractor understands that it is highly likely that there will be interfering utilities, i.e. service laterals, drains, pipe and conduits (ducts), and related structures which are not shown or are not accurately indicated on the Plans or have not been previously discovered at the project site.

Utilities that are in the way of or in close proximity to the work, known as potential conflicts, may require a change in the Contractor's operations and should be reflected in the Contractor's Bid and in the project schedule.

Existing utilities may affect the work causing additional time or cost. Reasonable delays or resulting cost increases will be considered as part of the normal progress of work and will not be cause for extra compensation to the Contractor. The Contractor agrees to provide for a reasonable amount of additional time or cost in the Bid.

Locating, such as potholing, excavations, or boring, deemed necessary to determine the exact locations(s) of any utility which may interfere with the work shall be done prior to the start of construction at no additional cost to the Agency unless otherwise indicated or provided for in these Contract Documents.

00150.50(d) Delays - Delete this subsection.

Add the following subsection:

00150.50(f) Utility Information - Contact those utilities having buried facilities and request that they locate and mark them for their protection prior to construction. The Utilities notification system telephone number is 811 or (800) 332-2344.

00150.53 Utilities and Existing Improvements

The following table is added to the end of this subsection for convenience.

Utility	Agency	Contact	Phone	Email
Sanitary Sewer	City of Tigard	Rob Block	503-718-2607	rob@tigard-or.gov
Storm Sewer	City of Tigard	Rob Block	503-718-2607	rob@tigard-or.gov
Power	PGE	Jose Marquez	503-672-5452	Jose.Marquez@pgn.com
		24-hour	503-464-7777	
		Damage & Repair	503-736-5662	
Cable Internet Telephone	Comcast	Mircea "Mitch" Burghelea	503-798-5785	Mircea_burghelea@comcast.com
		Damage & Repair	503-617-1212	
	Ziply Fiber	John Bielec	O:503-626-2386 C:503-367-5106	John.bielec@Ziply.com
		24-hour	1-877-462-8188	
	Fatbeam	Bruce Hathaway		bruce@fatbeam.com
		Patrick Gottbreht		Patrick.gottbreht@fatbeam.co
	Lumen	Martina Gettman	303-382-0697	Martina.Gettman@Lumen.com
Gas	NW Natural	Steve Monier	217-741-4403	Steven.Monier@nwnatural.com
		Ryan Winfree	503-610-7765	Ryan.winfree@nwnatural.com
		Damage & Repair	503-226-4211	

SECTION 00165 – QUALITY OF MATERIALS

Comply with Section 00165 of the City of Tigard General Conditions, modified as follows:

00165.04 Costs of Testing – Add the following:

City will hire testing agency and will pay for costs of testing. Contractor shall bear the costs for all re-testing as a result of initial test failure.

SECTION 00170 – LEGAL RELATIONS AND RESPONSIBILITIES

Comply with Section 00170 of the City of Tigard General Conditions, modified as follows:

00170.01 Other Agencies Affecting Agency Contracts – Add the following:
(c) Local Agencies – Add the following:

- Clean Water Services (CWS)

00170.02 Permits, Licenses, and Taxes - Add the following:

- Prior to the start of work, Contractor is responsible for obtaining a City business license and all other permits necessary for the work not listed as permits the Agency shall be responsible for.

00170.03 Furnishing Right-of-Way and Permits – Add the following:

The Agency shall be responsible for obtaining the following permits:

- City of Tigard Public Facility Improvement (PFI) permit.
- City of Tigard Tree Removal Approvals.
- Clean Water Services Stormwater Connection Authorization Letter.
- DSL – Removal/Fill Permit
- DEQ – 401 WQ Certification
- USACE – Nationwide Permit

00170.60 Safety, Health, and Sanitation Provisions - Add the following paragraph to the end of this subsection:

The Contractor shall provide and maintain proper portable sanitary facilities for their employees and their subcontractors' employees during day and night shifts that will comply with the regulations of the local and State departments of health and as directed by the Engineer.

SECTION 00180 – PROSECUTION AND PROCESS

Comply with Section 00180 of the City of Tigard General Conditions, modified as follows:

00180.40(a) In General – Add the following bullet.

Work is permitted between the following hours

- 7:00 a.m. to 5:00 p.m. Monday through Friday DAY shift.
- Night work is not permitted.

00180.41 Project Work Schedules – After the paragraph that beings "One of the following Type…" add the following sentence:

A Type "A" schedule as detailed in the City of Tigard General Conditions is required for this contract.

00180.42 Preconstruction Conference – Add the following:

In addition to the Contractor, the intended project superintendents, foremen, subcontractor foremen – those who will actually be involved in construction activities – should attend the preconstruction conference.

The Contractor must be prepared for a thorough discussion and review, as well as revision, which may be deemed necessary in the opinion of the Engineer, of the following:

(Note: These materials SHALL be brought to the preconstruction conference for discussion followed by Engineer review. Some items may also require submittal in advance of the preconstruction meeting per the specifications.)

- Contractor's plan of operation and progress schedule (2 copies)
- List of 24-hour emergency phone numbers for the project manager, site foreman.
- List of subcontractors, names, addresses and phone numbers
- "Project Labor List" for all employee classifications anticipated to be used on project
- Cost percentage breakdown for lump sum bid item(s)
- Shop drawings (bring preliminary list)
- Traffic Control Plans
- Pollution Control Plan

During the preconstruction conference, be prepared to discuss the following items:

- Weekly project meetings – schedule and responsibilities
- Responsibility for locating utilities
- Hours of work
- Acceptance and approval of work
- Labor compliance, payrolls, and certifications
- Safety regulations for Contractor's and Owner's employees and representatives.
- Suspension of work, time extensions
- Change order procedures
- Progress estimates – procedures for payment
- Any interpretation of the Contract Documents requested by the Contractor
- Any conflicts or omissions in the Contract Documents
- Any other problems or questions concerning the work
- Processing and administration of public complaints

Add the following subsection:

00180.44 Required Submittals – The contractor shall provide submittals for items including but not limited to:

Submittal	**Schedule/Milestone**
Construction Schedule	Preconstruction meeting
Environmental Protection Plan	Preconstruction meeting
Traffic Control Plan	Preconstruction meeting
Erosion and Sediment Control Plan (ESCP)	Preconstruction meeting

00180.50(c) Beginning of Contract Time – Replace this subsection, except for the subsection number and title, with the following:

When the Contract Time is stated in Calendar Days, counting of Contract Calendar Days will begin with the issuance of the Notice to Proceed.

00180.50(h) Contract Time – Add the following subsection.

Work to be done under this project shall be completed within the in-water work window, ending on September 30, 2026.

Pending the arrival of the city supplied gangway and accessible dock, they may have to be floated to final location after in-water work is complete.

Notice to proceed (NTP) with construction is expected to be issued on July 6, 2026. Notice to purchase materials may be issued at an earlier date agreed upon by the city and Contractor.

0180.85(b) Liquidated Damages – Add the following paragraph to the end of this subsection:

The liquidated damages for failure to complete the Work on time required by 00180.50 (h) will be $700 per Calendar Day.

SECTION 00199 – DISAGREEMENTS, PROTESTS, AND CLAIMS

Delete Section 00199 of the Standard Specifications. Refer to the City of Tigard General and Special Conditions.

SECTION 00210 – MOBILIZATION

Comply with Section 00210 of the Standard Specifications modified as follows:

00210.00 Scope – Add the following to this subsection:

00210.40 Mobilization – Add the following bulleted items to the end of this Subsection:

- Obtain all applicable licenses and insurance required by the Contract to complete the work as specified herein.

00210.90 Payment – Add the following to this subsection:

SECTION 00220 – ACCOMMODATIONS FOR PUBLIC TRAFFIC

Comply with Section 00220 of the Standard Specifications modified as follows:

00220.02(a) General Requirements – Add the following bullets to this subsection:

- Vehicular access to the lower parking lot will be restricted to Contractor vehicles, Tualatin River Keepers (TRK) personnel, and city of Tigard vehicles.
- Boarding dock and boat ramp to remain open during construction for pedestrian access.

00220.02(b) Temporary Pedestrian Accessible Route Plan – Add the following bullets to this subsection:

- Existing accessible parking stalls and sidewalk ramp shall not be removed until proposed accessible stalls and sidewalk ramp are constructed.

SECTION 00221 – COMMON PROVISIONS FOR WORK ZONE TRAFFIC CONTROL

Comply with Section 00221 of the Standard Specifications.

SECTION 00222 – TEMPORARY TRAFFIC CONTROL SIGNS

Comply with Section 00222 of the Standard Specifications.

SECTION 00224 – TEMPORARY TRAFFIC CHANNELIZING DEVICES

Comply with Section 00224 of the Standard Specifications.

SECTION 00225 – TEMPORARY PAVEMENT MARKING

Comply with Section 00225 of the Standard Specifications.

SECTION 00270 – TEMPORARY FENCES

Comply with Section 00270 of the Standard Specifications modified as follows:

00270.90 Payment – Replace the line beginning "In Item (a)" with the following:

In item (a) the type of fence will be inserted in the blank. Temporary gates for contractor access shall be incidental to this bid item.

SECTION 00280 – EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

00280.00 Scope – Add the following:

This section shall be governed by Clean Water Services standards and requirements.

SECTION 00290 – ENVIRONMENTAL PROTECTION

Comply with Section 00290 of the Standard Specifications modified as follows:

00290.90 Payment – Add the following:

(a) Work Area Isolation……..……..…..……Lump Sum

Item (a) includes placement of sandbags at the perimeter of the work area and associated dewatering, and installation, maintenance, and removal of sediment curtain as shown in the drawings.

SECTION 00305 – CONSTRUCTION SURVEY WORK

Comply with Section 00305 of the Standard Specifications.

SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Comply with Section 00310 of the Standard Specifications modified as follows:

00310.00 Scope – Add the following to the end of this subsection:
Materials to be remove and disposed of include, but are not limited to:

- Landscape features
- Curbs
- Walks and driveways
- Surfacing

00310.44 Earthwork in Connection with Removal – Replace the second paragraph with the following:

Backfill holes according to 00330.45. No separate or additional payment will be made for this Work.

00290.91 Lump Sum Basis – Add the following:

Sawcutting existing surfaces or structures shall be considered incidental.

00290.92 Separate Item Basis – Add the following:

(i) Removal of Piles……..……..…..……Each

Item (i) includes all labor, equipment, materials, and other incidentals and work necessary to fully remove existing pile and backfill with clean gravel. Pile removal shall follow DEQ permit requirements.

SECTION 00320 – CLEARING AND GRUBBING

Comply with Section 00320 of the Standard Specifications.

SECTION 00330 – EARTHWORK

Comply with Section 00330 of the Standard Specifications modified as follows:

00330.03 Basis of Performance – Delete this subsection and replace with the following:

00330.03 Basis of Performance – Earthwork to be performed under this specification including excavation, haul, disposal, and embankment construction, unless otherwise specified, will not be measured, and will be paid for on the Lump Sum Basis.

00330.41(a-5) Waste Materials – Replace this subsection, except for the subsection number and title, with the following:

Unless otherwise specifically allowed and subject to the requirements of 00280.03, dispose of materials, classed as waste materials in 00330.41(a-3), outside and beyond the limits of the Project and Agency controlled property according to 00290.20. Do not dispose of materials on wetlands, either public or private, or within 300 feet of rivers or streams. Certification must be delivered to City prior to material leaving the site.

00330.41(a-9) Excavation Below Grade – Delete subsection 00330.41(a-9-c).

00330.41(e) Blasting – Replace this subsection, except for the subsection number and title, with the following:

Blasting will not be permitted on this project.

00330.42(c-3) Embankment Slope Protection – Add the following paragraph:

Construct the outer 12 inches of embankments with suitable materials to establish slope stabilization through permanent seeding. If suitable material is not available, provide suitable materials from a Contractor-provided source which conforms to the requirements of 00330.11 or 00330.13 and provides favorable conditions for germination of seed and growth ofgrass.

00330.80 Measurement – Replace the first bulleted item with the following:
There will be no measurement of quantities for general excavation. **The Contractor shall complete their own earthwork calculations to confirm the required quantities for their bid.** The Engineer has estimated the following quantities utilizing AutoCAD Civil 3D 2022:

Excavation*: 300 CY

The Contractor should consider the following when preparing their lump sum bid:

* The Engineer's earthwork volume estimates are calculated as the volume between proposed ground surface and the existing ground surface as indicated in the topographic survey. These estimated volumes do not reflect volumetric adjustments relating to stripping depths or removal of structures and obstructions such as existing asphalt concrete pavement and concrete sidewalks, curbs, and driveways that are identified to be removed. Earthwork quantities also include excavation required for placement of topsoil within the project limits including landscape areas, and other grading outside the limits of the roadway as shown on the plans.

A 5% contingency has been added to the earthwork quantity estimate to make grading adjustments as requested by property owners or directed by the Engineer. This additional 5% work contingency shall be reflected in the Contractor's bid and will not be measured.

SECTION 00350 – GEOSYNTHETIC INSTALLATION

Comply with Section 00350 of the Standard Specifications modified as follows:

00350.10 Materials – Supplement this section with the following:

Geomembrane liner shall meet the requirements of Section 02320 for a Type 2 Woven Geotextile.

00350.80 Measurement – Replace this section with the following:

No measurement of quantities will be made for Work performed under this Section.

SECTION 00390 – RIPRAP PROTECTION

Comply with Section 00390 of the Standard Specifications modified as follows:

00390.80 Measurement – Replace this section with the following:

The quantities of Work performed under this Section will be measured on a lump sum basis.

00390.90 Payment – Add the following bullet to the end of the list:

(f) Riprap Protection……..……..…..……Lump Sum

00390.90 Payment – Add the following to the end of the section:

Geotextile liner shall be considered incidental.

SECTION 00520 – DRIVEN PILES

Comply with Section 00520 of the Standard Specifications modified as follows:

00520.11 Engineer's Estimated Length List - Add the following to the end of this subsection:

The Engineer's estimated lengths of steel piling are:

Length (Feet)	Kind
110	**PP 12x0.375**
220	**PP 16x0.375**

00520.41(c) Minimum Penetration - Add the following to the end of the subsection:

If driving must be terminated before the minimum requirements are achieved because driving stresses are greater than 90 percent of the yield strength (of the steel pile) or to prevent other damage to the pile or hammer, the driving records should be reviewed by the professional geotechnical engineer of record to evaluate both compressive and lateral resistance of the pile.

00520.41(f) Location and Alignment Tolerance - Add the following to the end of the first paragraph of the subsection:

Piles should be driven no closer together than 2.5 piles diameters (2.5D), measured from center to center.

00520.42(a) Nominal Pile Bearing Resistance - Add the following to the end of the section:

If splicing pile lengths in the leads is necessary to install the piles, then splicing locations should be approved by the structural engineer.

During pile driving, a continuous record of pile driving resistance (bpf) should be maintained for the full length of each pile driven, as well as other pertinent information, including observed hammer performance.

Piles shall be placed by means of a vibratory hammer meeting the requirements of DSL Permit No. 64652-RF.

00520.90 Payment - Modify the following pay items and paragraphs:

Pay Item	Unit of Measurement
(b) Drive Steel Pile	Each
(d) Furnish Pile, _____	Linear Foot

In items (c), (d) and (k) the type and size of pile will be inserted in the blank.

SECTION 00641 – AGGREGATE SUBBASE, BASE, AND SHOULDERS

Comply with Section 00641 of the Standard Specifications modified as follows:

00641.80 Measurement – Replace this subsection, except for the subsection number and title, with the following:

The quantities of aggregate will be measured on the volume basis. Quantities will be the theoretical neat line quantity constructed and accepted. A half foot (6") buffer is included at back of curb excavations to allow for form work.

00641.90 Payment – Replace the Pay Items and Unit of Measurement list with the following:

Pay Item	Unit of Measurement
(a) Aggregate Base	Cubic Yard

SECTION 00744 – ASPHALT CONCRETE PAVEMENT

Comply with Section 00744 of the Standard Specifications modified as follows:

00744.80 Measurement – Supplement this subsection with the following:

Partial asphalt cement loads will be estimated in the field by the City's inspector. No payment will be made for excess asphalt concrete not placed on the project.

00744.90 Payment – In the paragraph that begins "No separate or additional payment…", add the following bullet to the end of the bullet list:

- Emulsified asphalt tack coat

SECTION 00759 – MISCELLANEOUS PORTLAND CEMENT CONCRETE STRUCTURES

Comply with Section 00759 of the Standard Specifications modified as follows:

Add the following subsection:

00759.01 Terminology - According to 00110.05(a), for the purposes of this Contract, the terms "sidewalk ramp" and "sidewalk ramps" shall respectively refer to and shall be read to mean "curb ramp" and "curb ramps".

00759.04 Preplacement Conference - Add the following paragraph after the first paragraph:

Topics covered at the Preplacement Conference will include:
- Ramp Styles / Configurations
- Slope and Width Requirements
- Turning Space
- Construction Tolerances
- Ramp Inspection
- Other Project-Specific Issues / Requirements

Add the following to the end of this subsection:

All supervisory personnel who have an active ODOT ADA Certification for Contractors and will directly supervise the curb ramp Work must attend the preplacement conference.

00759.12 Sidewalk Ramp Treatment - Replace this subsection with the following:

00759.12 Curb Ramp Treatment - Furnish "Safety Yellow" colored, cast-in-place, truncated dome detectable warning Surfaces for sidewalk ramps and accessible route islands. Use any listed on the ODOT QPL.

Use cast-in-place installation at all ramp locations.

Add the following subsection:

00759.22 Smart Level – Add the following to this section:

The 6-inch level will only be used to measure counter slope when there is a concrete gutter. All other locations will use a 24-inch level to measure slopes.

00759.44 Joining New to Existing Concrete - Replace the sentence that begins "Unless shown or …" with the following:

Unless shown or directed otherwise, furnish and place maximum 1/2-inch-thick preformed expansion joint filler between new and existing concrete.

00759.48(b) Driveways, Walks, Monolithic Curbs and Sidewalks, and Surfacings - Replace the first bulleted item with the following:

- Place on both sides of driveways, curb ramps, at the PC and PT of curves.

00759.49(a) Locations – Supplement with the following bulleted:

- At scoring locations as shown on the plans.

00759.50(c) Driveways, Walks, and Surfacings - Add the following subsection:

(d) Grades - Agency will field verify finished grades using a smart level at any location deemed necessary to ensure compliance with the Standard Drawings and Plans.

00759.80 Measurement – Supplement this subsection with the following:

- **Lump Sum Basis –** Under this method, no measurement of quantities will be made.

00759.90 Payment – Supplement this subsection with the following:

	Pay Item	Unit of Measurement
(o)	Concrete Abutment……...……..Lump Sum	

Item (o) includes reinforcement, doweling, and attachment to future gangway.

00759.90 Payment – Replace the line beginning "In Item (g)" with the following:

In item (g), the specified thickness, or type, of concrete Surfacing will be inserted in the blank, if appropriate. Includes furnishing and installing reinforcement as indicated in the drawings.

SECTION 00850 – COMMON PROVISIONS FOR PAVEMENT MARKINGS

Comply with Section 00850 of the Standard Specifications.

SECTION 00865 – LONGITUDINAL PAVEMENT MARKINGS – DURABLE

Comply with Section 00865 of the Standard Specifications.

SECTION 00867 – TRANSVERSE PAVEMENT MARKINGS – LEGENDS AND BARS

Comply with Section 00867 of the Standard Specifications.

SECTION 00905 – REMOVAL AND REINSTALLATION OF EXISTING SIGNS

Comply with Section 00905 of the Standard Specifications.

SECTION 00920 – SIGN SUPPORT FOOTINGS

Comply with Section 00920 of the Standard Specifications modified as follows:

00920.90 Payment – Replace the section with the following:

The accepted quantities of Work performed under this Section will be paid for at the Contract lump sum amount for the item "Signs, Standard Sheeting, Sheet Aluminum and Post".

SECTION 00930 – METAL SIGN SUPPORTS

Comply with Section 00930 of the Standard Specifications modified as follows:

00930.90 Payment – Replace the section with the following:

The accepted quantities of Work performed under this Section will be paid for at the Contract lump sum amount for the item "Signs, Standard Sheeting, Sheet Aluminum and Post".

SECTION 00940 – SIGNS

Comply with Section 00940 of the Standard Specifications modified as follows:

00940.90 Payment – Supplement this subsection with the following:

	Pay Item	Unit of Measurement
(g)	Signs, Standard Sheeting, Sheet Aluminum and Post……..	Lump Sum

Item (g) includes sign, support, support footing, and all attachment hardware and anchor bolts.

SECTION 01020 – INSTALLATION OF DOCK AND GANGWAY

Section 01020, which is not a Standard Specification, is included in this Project by Special Provision.

Description

01020.00 Scope - This Work consists of all work necessary to install owner supplied aluminum gangway and floating dock.

Materials

Aluminum Gangway and Accessible Dock shall be owner supplied to the project site.

Construction Requirements

Placement shall be in accordance with Oregon State Marine Board Guidelines for Recreational Boating Facilities, Third Edition.

Measurement

1020.80 Measurement - No measurement will be made for the lump sum bid item.

Payment

	Pay Item	Unit of Measurement
(a)	Install Owner Provided Aluminum Gangway…….	Lump Sum
(b)	Install Owner Provided Accessible Dock…..…….	Lump Sum

Payment for items (a) will be payment in full including all labor and other miscellaneous incidentals and work necessary to install aluminum gangway and accessible dock.

SECTION 01030 – SEEDING

Comply with Section 01030 of the Standard Specifications modified as follows:

01030.13(b) Quality – Add the following bulleted items to this subsection:

- Seed is certified "Weed Free," indicating there are no noxious or nuisance weed seeds.

01030.13(f) Types of Seed Mixes – Replace this subsection with the following:

Seed mixes, quantities, standards, seeding rates, and other information shall be shown in the plans and described in the 'Natural Resource Assessment Cook Park Accessible River Access and Dock Replacement Project' by Pacific Habitat Services, Inc. dated November 28, 2023 included in the contract documents.

01030.90 Payment – Modify pay item (d) as follows:

	Pay Item	**Unit of Measurement**
(d)	Permanent Seeding……...……..Square Yard	

SECTION 01040 – PLANTING

Comply with Section 01040 of the Standard Specifications modified as follows:

001040.00 Scope – Replace the section in its entirety with the following:

This Work consists of planting and associated Work as shown or directed in the plans and described in the 'Natural Resource Assessment Cook Park Accessible River Access and Dock Replacement Project' by Pacific Habitat Services, Inc. dated November 28, 2023 included in the contract documents.

001040.02 Definitions - Add the following definitions to the subsection:

Weed Free - See 01030.02 for weed free definition.

001040.04 Coordination - Add the following to the end of the subsection:

Planting locations and quantities to be finalized with the Agency prior to construction.

SECTION 01069 – METAL HANDRAIL AND PEDESTRIAN FENCE

Comply with Section 01069 of the Standard Specifications.

SECTION 01120 – IRRIGATION SYSTEMS

Comply with Section 01120 of the Standard Specifications modified as follows:

01120.90 Payment - Add the following sentence to the end of the subsection:

No additional payment will be made for irrigation repair.

ATTACHMENT L – PERMITS
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

CWS Service Provider Letter

DSL Permit No. 64652RF

USACE–NWP-1994-897

DEQ 1994-897; Cook Park Accessible River Access and Dock Replacement 401 Water Quality Certification (included in the USACE permit)

Clean Water Services
Our commitment is clear.

CWS File Number
23-003174

Service Provider Letter

This form and the attached conditions will serve as your Service Provider Letter in accordance with Clean Water Services Design and Construction Standards (R&O 19-5, as amended by R&O 19-22).

Jurisdiction:	City of Tigard	**Review Type:**	Tier 2 Analysis
Site Address / Location:	17005 SW 92nd Ave Tigard, OR 97224	**SPL Issue Date:** **SPL Expiration Date:**	January 5, 2024 January 4, 2025

Applicant Information:		**Owner Information:**	
Name	JEFF PECK	Name	
Company	CITY OF TIGARD	Company	CITY OF TIGARD
Address	13125 SW HALL BLVD TIGARD OR 97223	Address	13125 SW HALL BLVD TIGARD OR 97223
Phone/Fax	(503) 718-2466	Phone/Fax	
E-mail:	jeffp@tigard-or.gov	E-mail:	

Tax lot ID	**Development Activity**
2S114DB00100	Boat Ramp & Dock Replacement & River Access

Pre-Development Site Conditions:		**Post Development Site Conditions:**	
Sensitive Area Present:	[X] On-Site [X] Off-Site	Sensitive Area Present:	[X] On-Site [X] Off-Site
Vegetated Corridor Width:	Variable	Vegetated Corridor Width:	Variable
Vegetated Corridor Condition:	Marginal/Degraded		

Enhancement of Remaining Vegetated Corridor Required: [X]

Square Footage to be enhanced: 15,457

Encroachments into Pre-Development Vegetated Corridor:

Type and location of Encroachment:	Square Footage:
Boat Dock Replacement, River Access, Grading (Permanent Encroachment; Mitigation Required)	3,554
Construction Access (Temporary Encroachment not to be restored to Good Condition; Mitigation Required)	3,438

Mitigation Requirements:

Type/Location	Sq. Ft./Ratio/Cost
On-site VC Enhancement as Mitigation	7,108/2:1

[X] Conditions Attached [X] Development Figures Attached (8) [X] Planting Plan Attached [ ] Geotech Report Required

This Service Provider Letter does NOT eliminate the need to evaluate and protect water quality sensitive areas if they are subsequently discovered on your property.

In order to comply with Clean Water Services water quality protection requirements the project must comply with the following conditions:

1. No structures, development, construction activities, gardens, lawns, application of chemicals, uncontained areas of hazardous materials as defined by Oregon Department of Environmental Quality, pet wastes, dumping of materials of any kind, or other activities shall be permitted within the sensitive area or Vegetated Corridor which may negatively impact water quality, except those allowed in R&O 19-5, Chapter 3, as amended by R&O 19-22.
2. Prior to any site clearing, grading or construction the Vegetated Corridor and water quality sensitive areas shall be surveyed, staked, and temporarily fenced per approved plan. During construction the Vegetated Corridor shall remain fenced and undisturbed except as allowed by R&O 19-5, Section 3.06.1, as amended by R&O 19-22 and per approved plans.
3. **If there is any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). The applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits. No wetland or waters impacts proposed for this project.**
4. An approved Oregon Department of Forestry Notification is required for one or more trees harvested for sale, trade, or barter, on any non-federal lands within the State of Oregon.
5. Prior to any ground disturbing activities, an erosion control permit is required. Appropriate Best Management Practices (BMP's) for Erosion Control, in accordance with Clean Water Services' Erosion Prevention and Sediment Control Planning and Design Manual, shall be used prior to, during, and following earth disturbing activities.
6. Prior to construction, a Stormwater Connection Permit from Clean Water Services or its designee is required pursuant to Ordinance 27, Section 4.B.
7. Activities located within the 100-year floodplain shall comply with R&O 19-5, Section 5.10, as amended by R&O 19-22.
8. Removal of native, woody vegetation shall be limited to the greatest extent practicable.
9. The water quality swale and detention pond shall be planted with Clean Water Services approved native species, and designed to blend into the natural surroundings.
10. **Should final development plans differ significantly from those submitted for review by Clean Water Services, the applicant shall provide updated drawings, and if necessary, obtain a revised Service Provider Letter.**
11. The Vegetated Corridor width for sensitive areas within the project site shall be a minimum of 50 feet wide, as measured horizontally from the delineated boundary of the sensitive area.
12. **The applicant shall enhance a total of 22,565 square feet of existing Vegetated Corridor to meet or exceed good corridor condition as defined in R&O 19-5, Section 3.14.2, Table 3-3, as amended by R&O 19-22.**
13. Removal of invasive non-native species by hand is required in all Vegetated Corridors rated ""good."" Replanting is required in any cleared areas larger than 25 square feet using low impact methods. The applicant shall calculate all cleared areas larger than 25 square feet prior to the preparation of the required Vegetated Corridor enhancement/restoration plan.
14. Prior to any site clearing, grading or construction, the applicant shall provide Clean Water Services with a Vegetated Corridor enhancement/restoration plan. Enhancement/restoration of the Vegetated Corridor shall be provided in accordance with R&O 19-5, Appendix A, as amended by R&O 19-22, and shall include planting specifications for all Vegetated Corridor, including any cleared areas larger than 25 square feet in Vegetated Corridor rated ""good.""
15. Prior to installation of plant materials, all invasive vegetation within the Vegetated Corridor shall be removed per methods described in Clean Water Services' Integrated Pest Management Plan, 2019. During removal of invasive vegetation care shall be taken to minimize impacts to existing native tree and shrub species.

16. Clean Water Services and/or City shall be notified 72 hours prior to the start and completion of enhancement/restoration activities. Enhancement/restoration activities shall comply with the guidelines provided in Planting Requirements (R&0 19-5, Appendix A, as amended by R&O 19-22).
17. **Maintenance and monitoring requirements shall comply with R&O 19-5, Section 2.12.2, as amended by R&O 19-22. If at any time during the warranty period the landscaping falls below the 80% survival level, the owner shall reinstall all deficient planting at the next appropriate planting opportunity and the two year maintenance period shall begin again from the date of replanting.**
18. **Performance assurances for the Vegetated Corridor shall comply with R&O 19-5, Section 2.07.2, Table 2-1 and Section 2.11, Table 2-2, as amended by R&O 19-22.**
19. **Clean Water Services may require an easement over the Sensitive Area and Vegetated Corridor conveying storm and surface water management to Clean Water Services or the City that would prevent the owner of the Vegetated Corridor from activities and uses inconsistent with the purpose of the corridor and any easements therein.**

FINAL PLANS

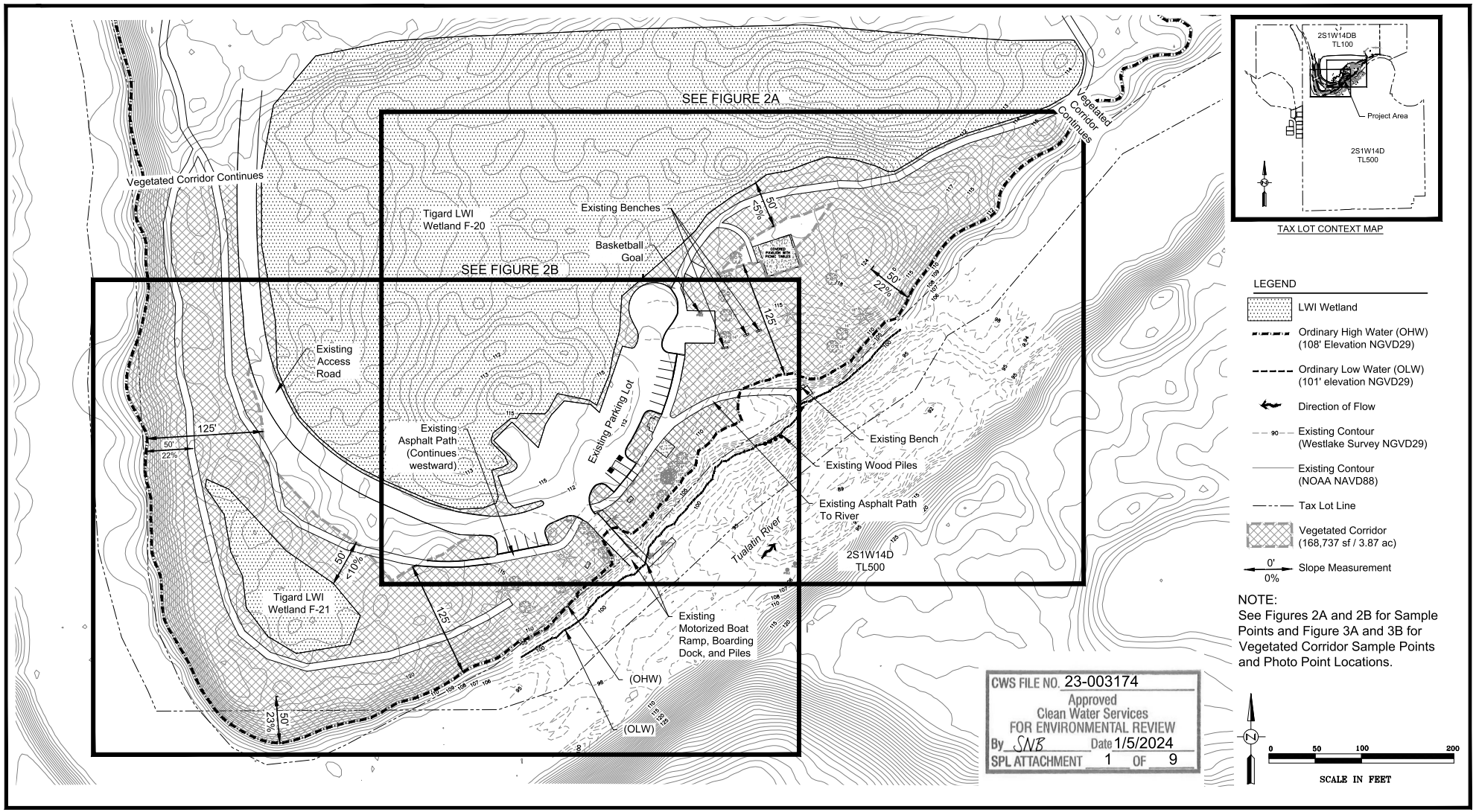
20. **Final construction plans shall include landscape plans**. In the details section of the plans, a description of the methods for removal and control of exotic species, location, distribution, condition and size of plantings, existing plants and trees to be preserved, and installation methods for plant materials is required. Plantings shall be tagged for dormant season identification and shall remain on plant material after planting for monitoring purposes.
21. **A Maintenance Plan shall be included on final plans including methods, responsible party contact information, and dates** (minimum two times per year, by June 1 and September 30).
22. **Final construction plans shall clearly depict the location and dimensions of the sensitive area and the Vegetated Corridor** (indicating good, marginal, or degraded condition). Sensitive area boundaries shall be marked in the field.
23. Protection of the Vegetated Corridors and associated sensitive areas shall be provided by the installation of permanent fencing and signage between the development and the outer limits of the Vegetated Corridors. **Fencing and signage details to be included on final construction plans.**

This Service Provider Letter is not valid unless CWS-approved site plan is attached.

Stacy Benjamin

Stacy Benjamin
Environmental Plan Review

Attachments (9)



Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc.
Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum. The approximate boundaries of Tigard LWI wetlands in the project vicinity were confirmed in the field and have an estimated accuracy of +/- 5 feet.

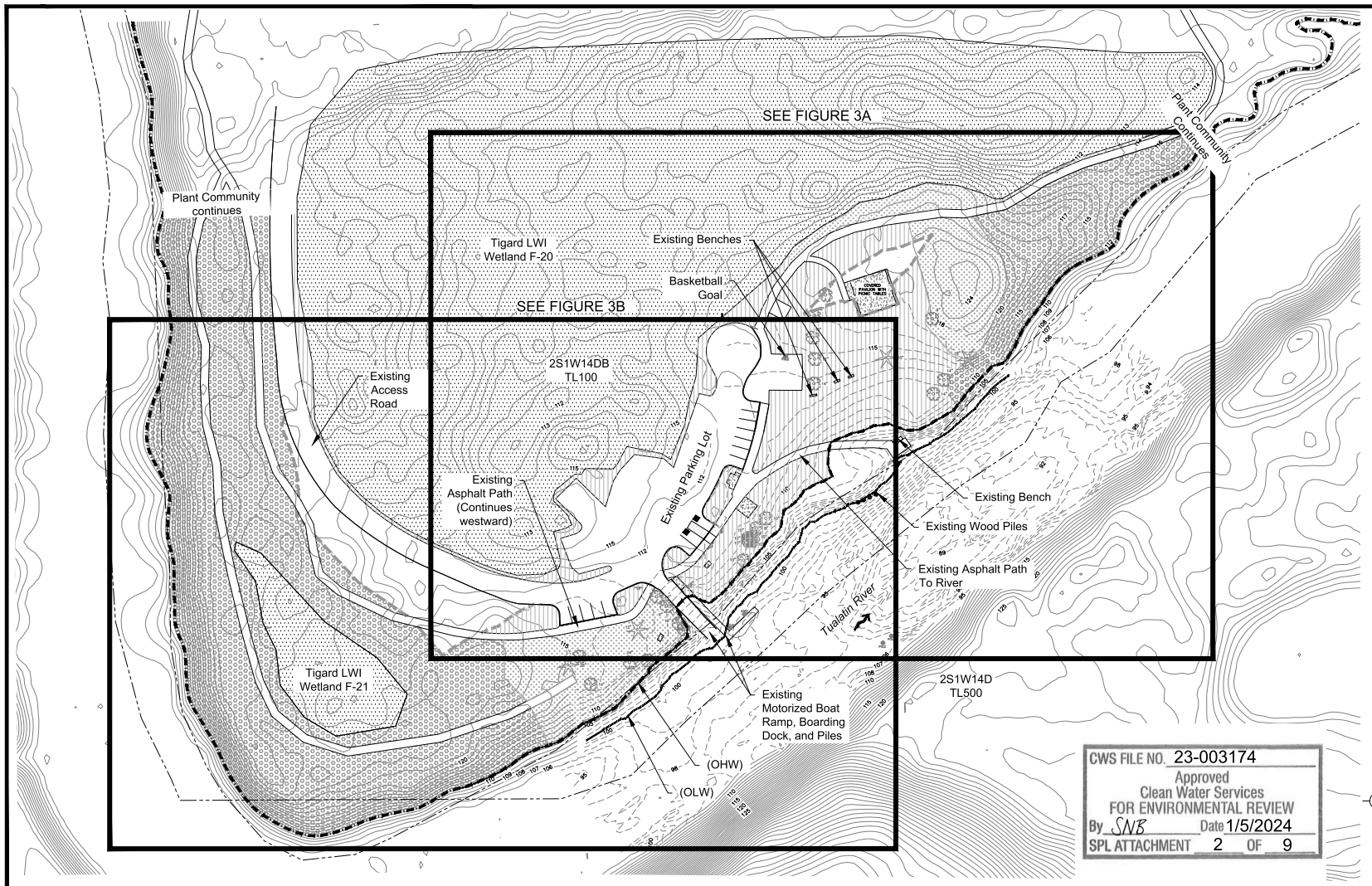
Existing Conditions Overview

Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 2

12-1-2023

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LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line
- Vegetated Corridor (168,737 sf / 3.87 ac)
- Plant Community A (Degraded) (43,170 sf / 0.99 ac)
- Plant Community B (Marginal) (100,001 sf / 2.29 ac)
- Plant Community C (Marginal) (25,566 sf / 0.59 ac)

NOTE:
See Figures 3A and 3B for Vegetated Corridor Sample Point Locations

CWS FILE NO. 23-003174
Approved
Clean Water Services
FOR ENVIRONMENTAL REVIEW
By SNB Date 1/5/2024
SPL ATTACHMENT 2 OF 9

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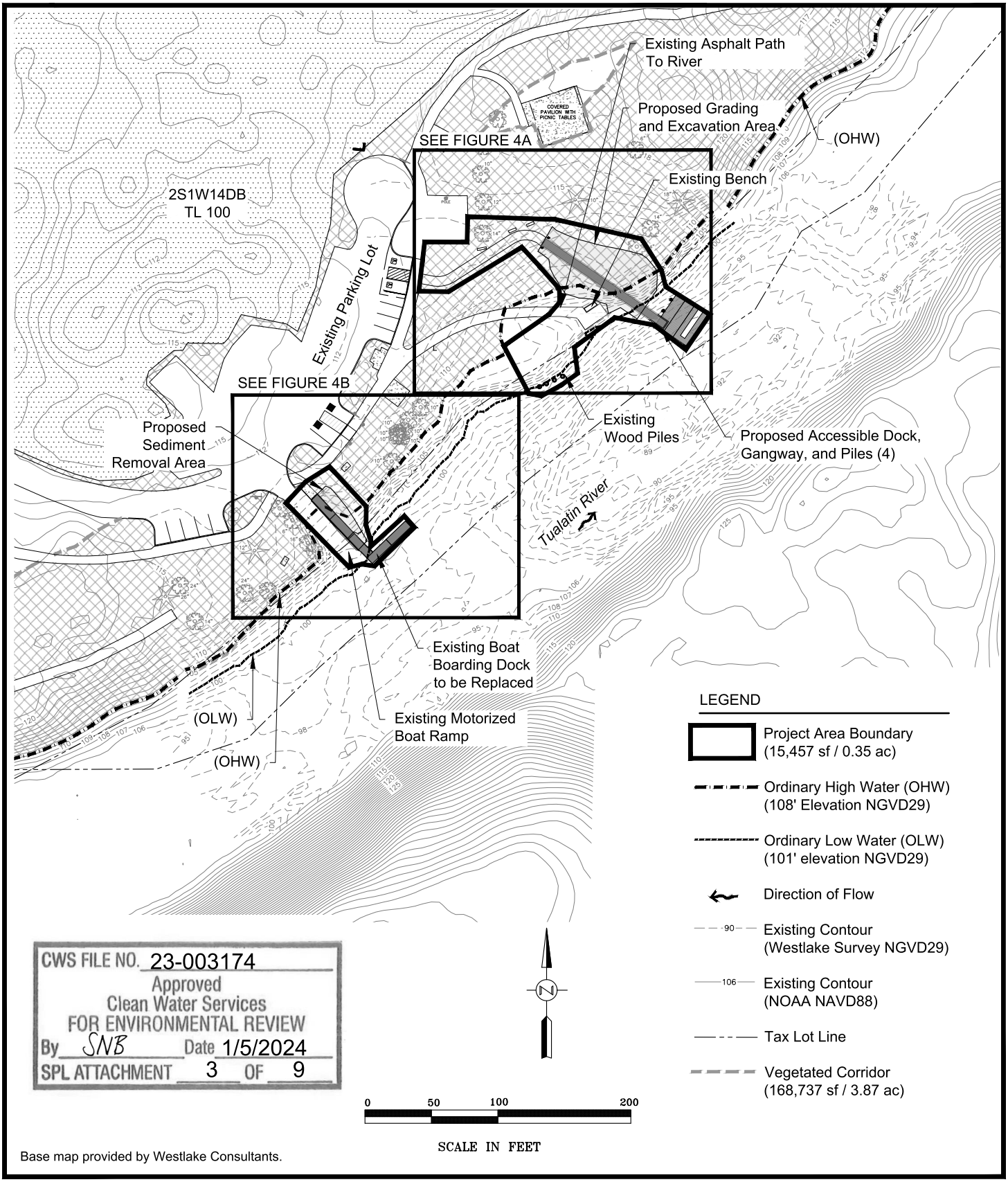
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9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
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Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum. The approximate boundaries of Tigard LWI wetlands in the project vicinity were confirmed in the field and have an estimated accuracy of +/- 5 feet.

Vegetated Corridor Plant Communities Overview
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 3

12-1-2023



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Clean Water Services
FOR ENVIRONMENTAL REVIEW
By SNB Date 1/5/2024
SPL ATTACHMENT 3 OF 9

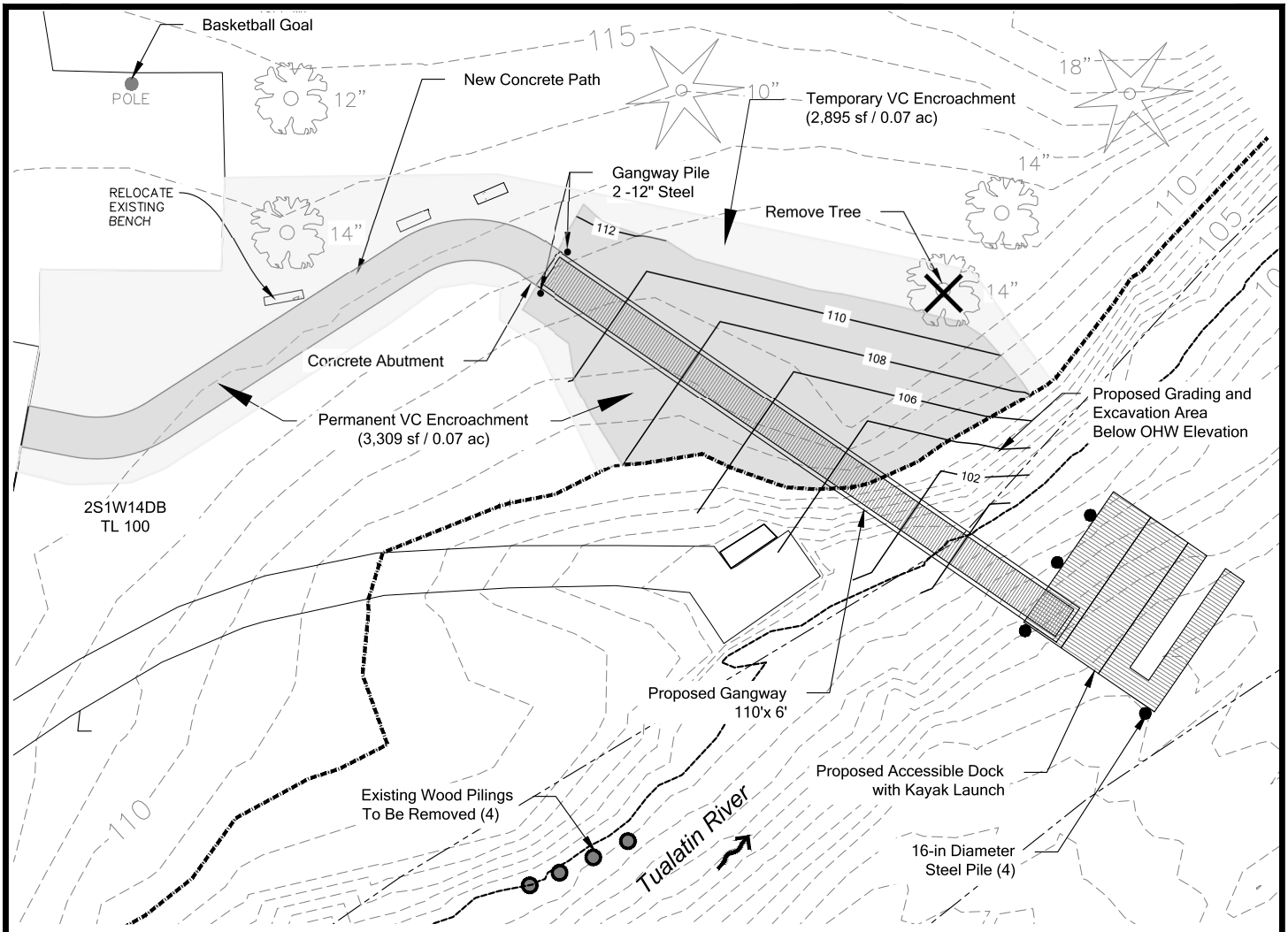
Base map provided by Westlake Consultants.

Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Site Plan Overview and Sheet Index
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4

12-1-2023



LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
- Tax Lot Line
- Vegetated Corridor Permanent Encroachment (3,554 sf / 0.08 ac)
- Vegetated Corridor Temporary Encroachment (3,438 sf / 0.08 ac)

NOTES:

1. See Figure 5 for Demolition and Erosion Control Plan.
2. Impacts below the OHW elevation under review by US Army Corps of Engineers (NWP-1994-897-1) and Oregon Department of State Lands (64652-RF)

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Clean Water Services
FOR ENVIRONMENTAL REVIEW
By SNB Date 1/5/2024
SPL ATTACHMENT 4 OF 9

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Base map provided by Westlake Consultants.

PHS
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

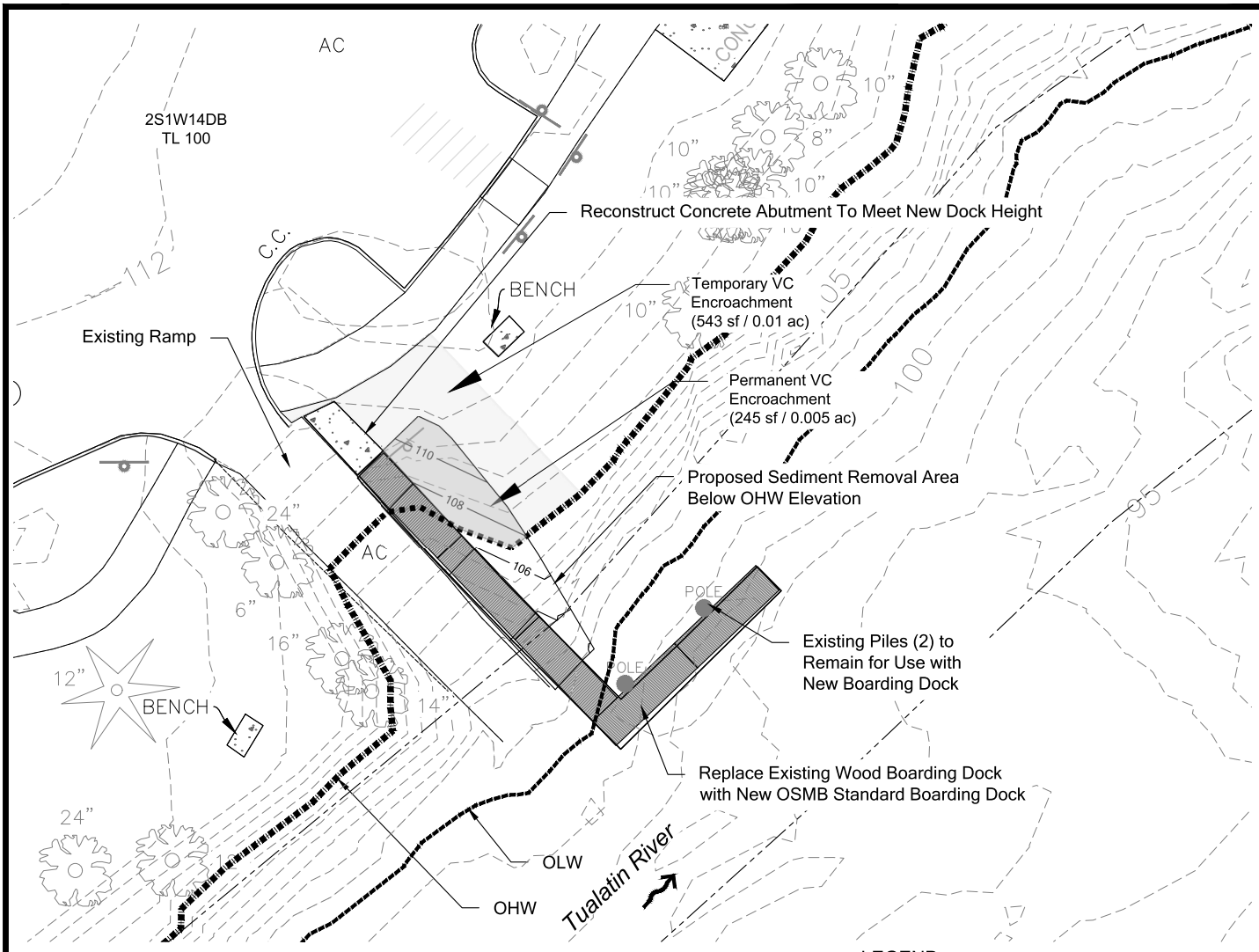
Proposed Site Plan and Grading for Accessible Ramp and Dock
Vegetated Corridor Encroachments

Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
4A

12-1-2023

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NOTES:

1. See Figure 5 for Demolition and Erosion Control Plan.
2. Impacts below the OHW elevation under review by US Army Corps of Engineers (NWP-1994-897-1) and Oregon Department of State Lands (64652-RF)

LEGEND

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SCALE IN FEET

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Clean Water Services
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By SNB Date 1/5/2024
SPL ATTACHMENT 5 OF 9

Base map provided by Westlake Consultants.

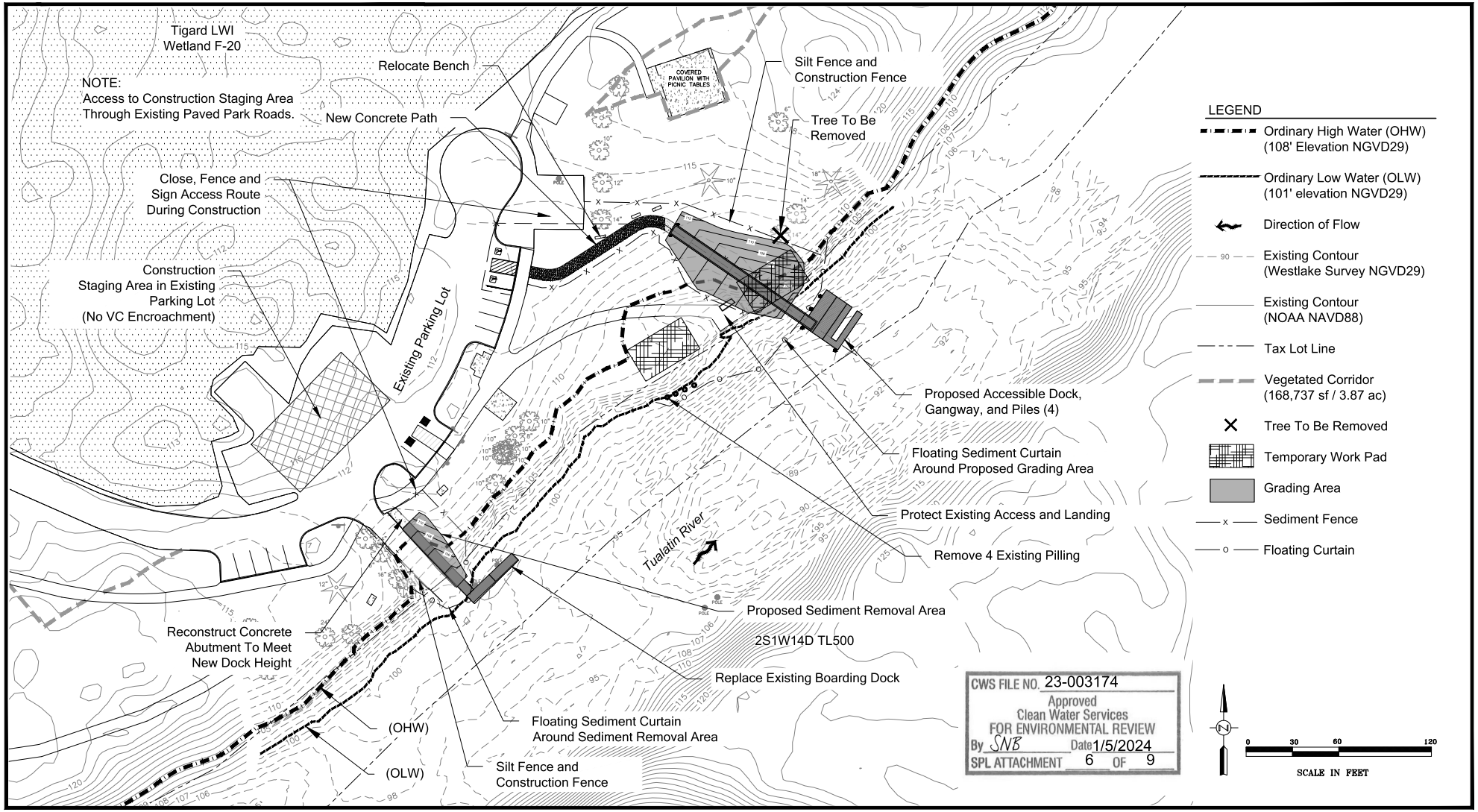
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Boarding Dock Replacement and Sediment Removal Area
Vegetated Corridor Encroachment

Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4B

12-1-2023



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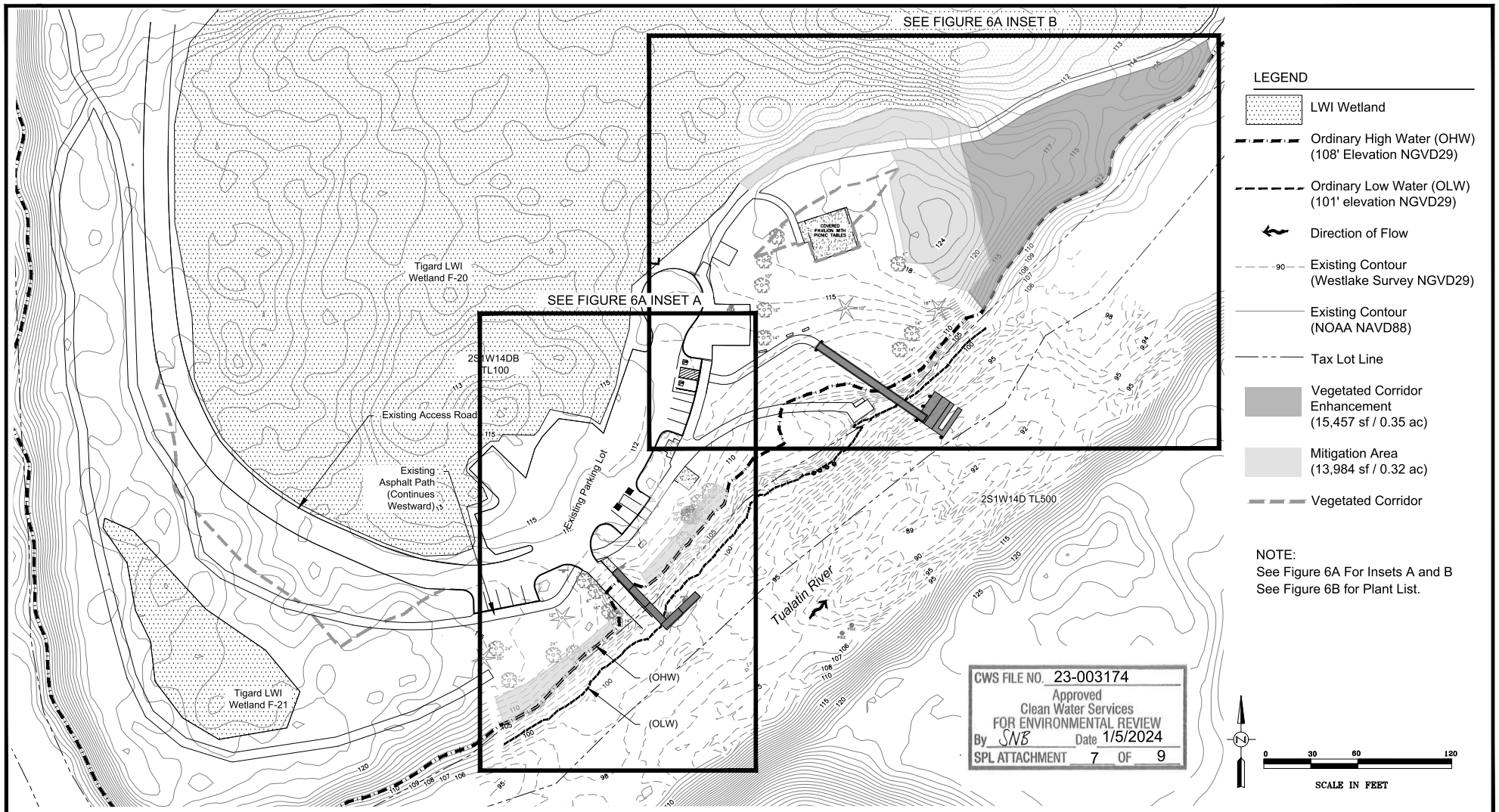
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confirmed in the field and have an estimated accuracy of +/- 5 feet.

Demolition and Erosion Control Plan
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 5

12-1-2023

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9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
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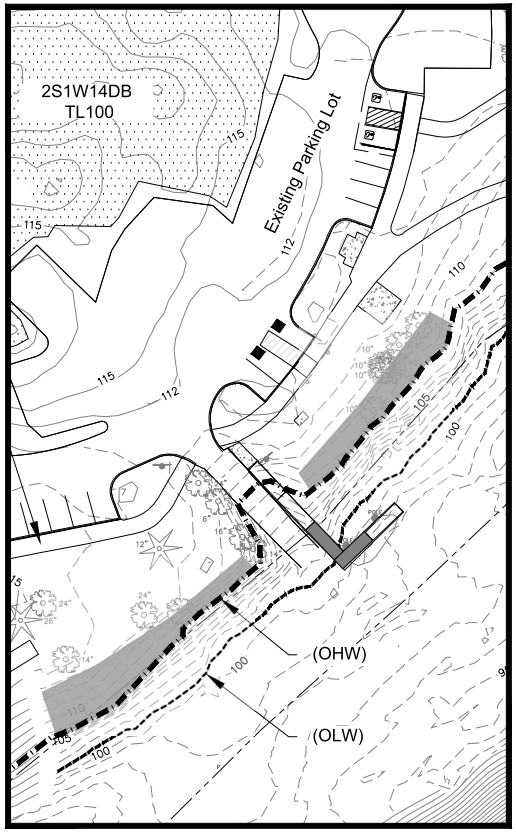
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Vegetated Corridor Enhancement and Mitigation Overview
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

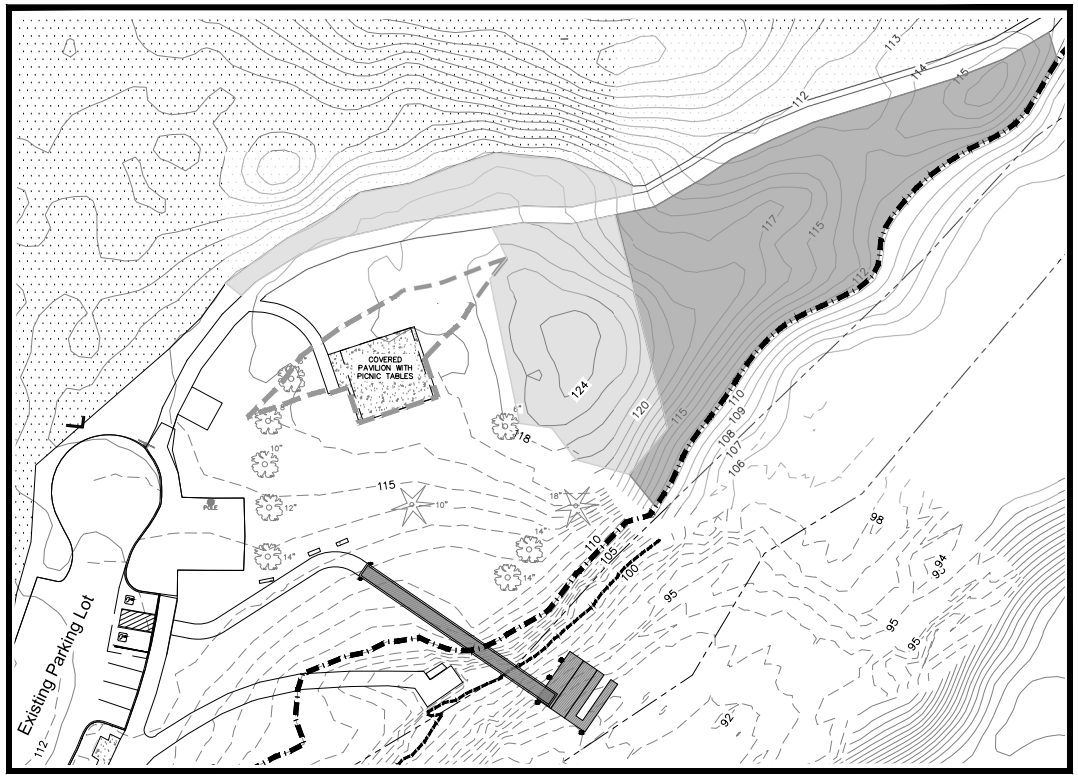
FIGURE 6

1-4-2024

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INSET A



INSET B

LEGEND

- LWI Wetland
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line
- Vegetated Corridor Enhancement (15,457 sf / 0.35 ac)
- Mitigation Area (13,984 sf / 0.32 ac)
- Vegetated Corridor

CWS FILE NO. 23-003174
Approved
Clean Water Services
FOR ENVIRONMENTAL REVIEW
By SWB Date 1/5/2024
SPL ATTACHMENT 8 OF 9

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9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area. The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season. Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum. The approximate boundaries of Tigard LWI wetlands in the project vicinity were confirmed in the field and have an estimated accuracy of +/- 5 feet.

Vegetated Corridor Enhancement and Mitigation Plan (Insets A and B)
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 6A

1-4-2024

C:\Users\Lisa\Desktop\WorkFromHome\7521 Cook Park Boat Ramp\AutoCAD\Plot Dwg\NRA Figures\Fig6A Mitigation.dwg, 1/4/2024 2:57:43 PM, AutoCAD PDF (High Quality Print).pc3

Species (Latin name)	Common Name	Quantity	Form
Enhancement Areas			
Trees			
Acer circinatum	Vine maple	TBD*	2 gallon container
Acer macrophyllum	Big-leaf maple	TBD*	2 gallon container
Cornus nuttallii	Western flowering dogwood	TBD*	1 gallon container
Pseudotsuga menziesii	Douglas-fir	TBD*	2 gallon container
Shrubs			
Amelanchier alnifolia	Serviceberry	TBD*	2 gallon container
Holodiscus discolor	Oceanspray	TBD*	1 gallon container
Mahonia aquifolium	Tall Oregon grape	TBD*	1 gallon container
Rubus parviflorus	Thimbleberry	TBD*	1 gallon container
Symphoricarpos albus	Snowberry	TBD*	1 gallon container
*Final quantities will be determined based on the quantities of existing native trees and shrubs			
Mitigation Area			
Trees (35)**			
Acer circinatum	Vine maple	9	2 gallon container
Acer macrophyllum	Big-leaf maple	8	2 gallon container
Cornus nuttallii	Western flowering dogwood	9	1 gallon container
Pseudotsuga menziesii	Douglas-fir	9	2 gallon container
Shrubs (699)			
Amelanchier alnifolia	Serviceberry	140	2 gallon container
Holodiscus discolor	Oceanspray	140	1 gallon container
Mahonia aquifolium	Tall Oregon grape	140	1 gallon container
Rubus parviflorus	Thimbleberry	139	1 gallon container
Symphoricarpos albus	Snowberry	140	1 gallon container

**Tree quantities reduced from standard based on existing canopy.

Botanical Name	Common Name	% of Mix by Weight
Seed List for Bare Ground		
Achillea millifolium	Common yarrow	2
Bromus carinatus	California brome	25
Elymus glaucus	Blue wildrye	25
Hordeum branchyantherum	Meadow barley	33
Lupinus rivularis	Riverbank lupine	15
Triticum aestivum x Elytrigia elongata	Regreen	30 lbs/acre

CWS FILE NO. 23-003174
Approved
Clean Water Services
FOR ENVIRONMENTAL REVIEW
By SNB Date 1/5/2024
SPL ATTACHMENT 9 OF 9

PHS
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Vegetated Corridor Enhancement and Mitigation Plant List
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 6B

1-4-2024

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Department of State Lands
775 Summer Street, Suite 100
Salem, OR 97301-1279
☎ 503-986-5200

Permit No.:	**64652-RF Renewal**
Permit Type:	**Removal/Fill**
Waters:	**Tualatin River**
County:	**Washington**
Expiration Date:	**December 4, 2026**

CITY OF TIGARD

IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE REFERENCED APPLICATION, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:

1. This permit does not authorize trespass on the lands of others. The permit holder must obtain all necessary access permits or rights-of-way before entering lands owned by another.
2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.
3. All work done under this permit must comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.
4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action, which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.
5. Employees of the Department of State Lands (DSL) and all duly authorized representatives of the Director must be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.
6. Any permit holder who objects to the conditions of this permit may request a hearing from the Director, in writing, within twenty-one (21) calendar days of the date this permit was issued.
7. In issuing this permit, DSL makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project's design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390, and related administrative rules.
8. Permittee must defend and hold harmless the State of Oregon, and its officers, agents and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.
9. Authorization from the U.S. Army Corps of Engineers may also be required.

NOTICE: If removal is from state-owned submerged and submersible land, the permittee must comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you must comply with ORS 274.905 to 274.940 if you want a transfer of title; public rights to such filled lands are not extinguished by issuance of this permit. This permit does not relieve the permittee of an obligation to secure appropriate leases from DSL, to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact Department of State Lands, 503-986-5200.

Rebecca Loiselle, Aquatic Resource Coordinator
Aquatic Resource Management
Oregon Department of State Lands

Rebecca A. Loiselle — September 12, 2025

Authorized Signature **Date**

ATTACHMENT A

Permit Holder: City of Tigard

Project Name: Cook Park Accessible River Access and Dock Replacement Project

Special Conditions for Removal/Fill Permit No. 64652-RF

READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT.

The project site may be inspected by the Department of State Lands (DSL) as part of our monitoring program. A copy of this permit must be available at the work site whenever authorized operations are being conducted.

1. **Responsible Party:** By signature on the application, Jeff Peck is acting as the representative of City of Tigard. By proceeding under this permit, City of Tigard agrees to comply with and fulfill all terms and conditions of this permit, unless the permit is officially transferred to another party as approved by DSL. In the event information in the application conflicts with these permit conditions, the permit conditions prevail.

2. **Authorization to Conduct Removal and/or Fill:** This permit authorizes 575 linear feet of waterway impacts with associated removal and fill of material in T02S R01W Section 14DB, Tax Lot 100, in Washington County, as referenced in the application, map and drawings (See Attachment B for project location), dated August 14, 2023.

3. **Work Period in Jurisdictional Areas:** Fill or removal activities below the ordinary high water elevation of Tualatin River must be conducted between June 1 and September 30, unless otherwise coordinated with Oregon Department of Fish and Wildlife and approved in writing by DSL. If fish eggs are observed within the project area, work must cease, and DSL contacted immediately.

4. **Changes to the Project or Inconsistent Requirements from Other Permits:** It is the permittee's responsibility to ensure that all state, federal and local permits are consistent and compatible with the final approved project plans and the project as executed. Any changes made in project design, implementation or operating conditions to comply with conditions imposed by other permits resulting in removal-fill activity must be approved by DSL prior to implementation.

5. **DSL May Halt or Modify:** DSL retains the authority to temporarily halt or modify the project or require rectification in case of unforeseen adverse effects to aquatic resources or permit non-compliance.

6. **DSL May Modify Conditions Upon Permit Renewal:** DSL retains the authority to modify conditions upon renewal, as appropriate, pursuant to the applicable rules in effect at the time of the request for renewal or to protect waters of this state.

Pre-Construction

7. **Local Government Approval Required Before Beginning Work:** Prior to the start of construction, the permittee must obtain a determination of Sensitive Lands Compliance from the City of Tigard.

8. **Stormwater Management Approval Required Before Beginning Work:** Prior to the start of construction, the permittee must obtain a National Pollution Discharge Elimination System (NPDES) permit from the Oregon Department of Environmental Quality (DEQ), if one is required by DEQ.

9. **Pre-construction Resource Area Fencing or Flagging:** Prior to any site grading, the boundaries of the avoided waterways, and riparian areas adjacent to the project site must be surrounded by noticeable construction fencing or flagging. The marked areas must be maintained during construction of the project and be removed immediately upon project completion.

General Construction Conditions

10. **Water Quality Certification:** The Department of Environmental Quality (DEQ) may evaluate this project for a Clean Water Act Section 401 Water Quality Certification (WQC). If the evaluation results in issuance of a Section 401 WQC, that turbidity condition will govern any allowable turbidity exceedance and monitoring requirements.

11. **Erosion Control Methods:** The following erosion control measures (and others as appropriate) must be installed prior to construction and maintained during and after construction as appropriate, to prevent erosion and minimize movement of soil into waters of this state.

    a. All exposed soils must be stabilized during and after construction to prevent erosion and sedimentation.
    b. Filter bags, sediment fences, sediment traps or catch basins, leave strips or berms, or other measures must be used to prevent movement of soil into waterways and wetlands.
    c. To prevent erosion, use of compost berms, impervious materials or other equally effective methods, must be used to protect soil stockpiled during rain events or when the stockpile site is not moved or reshaped for more than 48 hours.
    d. Unless part of the authorized permanent fill, all construction access points through, and staging areas in, riparian and wetland areas must use removable pads or mats to prevent soil compaction. However, in some wetland areas under dry summer conditions, this requirement may be waived upon approval by DSL. At project completion, disturbed areas with soil exposed by construction activities must be stabilized by mulching and native vegetative plantings/seeding. Sterile grass may be used instead of native vegetation for temporary sediment control. If soils are to remain exposed more than seven days after completion of the work, they must be covered with erosion control pads, mats or similar erosion control devices until vegetative stabilization is installed.
    e. Where vegetation is used for erosion control on slopes steeper than 2:1, a tackified seed mulch must be used so the seed does not wash away before germination and rooting.
    f. Dredged or other excavated material must be placed on upland areas having stable slopes and must be prevented from eroding back into waterways and wetlands.
    g. Erosion control measures must be inspected and maintained as necessary to ensure their continued effectiveness until soils become stabilized.
    h. All erosion control structures must be removed when the project is complete, and soils are stabilized and vegetated.

12. **Fuels, Hazardous, Toxic, and Waste Material Handling:** Petroleum products, chemicals, fresh cement, sandblasted material and chipped paint, material treated with leachable preservatives or other deleterious waste materials must not be allowed to enter waters of this state. Machinery and equipment staging, cleaning, maintenance, refueling, and fuel storage must be at least 150 feet from OHW and wetlands to prevent contaminates from entering waters of the state. Refueling is to be confined to a designated area to prevent spillage into waters of this state. Project-related spills into waters of this state or onto land with a potential to enter waters of this state must be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.

13. **Archaeological Resources:** If any archaeological resources, artifacts, or human remains are encountered during construction, all construction activity must immediately cease. The State Historic Preservation Office must be contacted at 503-986-0674. You may be contacted by a Tribal representative if it is determined by an affected Tribe that the project could affect Tribal cultural or archeological resources.

14. **Construction Corridor:** There must be no removal of vegetation or heavy equipment operating or traversing outside the designated construction corridor or footprint (Figure(s) 7).

15. **Hazards to Recreation, Navigation or Fishing:** The activity must be timed so as not to unreasonably interfere with or create a hazard to recreational or commercial navigation or fishing.

16. **Operation of Equipment in the Water:** Heavy equipment may be positioned below ordinary high water if the area is isolated from the waterway is completed, as shown in (Figure(s) 7) of the application. All machinery operated below ordinary high water (OHW) elevation must use vegetable-based hydraulic fluids, be steam cleaned and inspected for leaks prior to each use, and be diapered to prevent leakage of fuels, oils, or other fluids below OHW elevation. Any equipment found to be leaking fluids must be immediately removed from and kept out of OHW until repaired.

17. **Work Area Isolation:** The work area must be isolated from the water during construction in accordance with the work area isolation plan in the application. All structures and materials used to isolate the work area must be removed immediately following construction and water flow returned to pre-construction conditions.

Pilings/Dock Structures

18. **Piling Placement and/or Removal Location:** Piling must be placed and/or removed from locations depicted in the application, (Figure(s) 5, 5A and 5B).

19. **Method of Piling Placement:** Pilings must be placed by means of vibratory hammer. The contractor will provide a warning and/or give animals near vibratory pile driving time to leave the area prior to the vibratory driver operating at full capacity.

20. **Method of Piling Removal:** Removal of pile must be conducted by means of vibratory removal.

    a. Piling must not intentionally be broken by twisting or bending;
    b. Upon removal, piling must be handled to effectively contain all adhering sediment. All return flows must meet state water quality standards; and
    c. Piling and containment materials must be disposed in an approved upland disposal site.

21. **Broken Piles:** If piling breaks above or below the bed surface within an area of uncontaminated sediment, piling must be cut at least two feet below the bed surface or otherwise pushed into that depth, then covered with a cap of clean substrate.

22. **Piling Placement Equipment Location:** Pilings must be placed using barge-mounted equipment or equipment located above the top of bank.

23. **Sound Reduction:** A vibratory hammer must be used whenever feasible. If an impact hammer must be used to drive or proof steel piles, sound attenuation measures including cushion blocks (wood blocks between pile and hammer) and bubble curtains operated to distribute air bubbles around 100 percent of the piling for the full depth of the water column must be used:

    a. If water velocity is 1.7 miles per hour or less, an unconfined bubble curtain may be used; or
    b. If water velocity is greater than 1.7 miles per hour, a confined bubble curtain (e.g., bubble ring surrounded by fabric or metal sleeve) must be used.

24. **Dock Light Penetration:** Dock/float surface must provide light-penetration to effectively reduce shading and predator hiding advantages.

25. **Barge Grounding Prohibited:** If barge-mounted, the barge must not at any time be grounded on the bed or banks of the waterway.

26. **Leachable Preservatives Prohibited:** There must be no products treated with creosote or other leachable preservatives in the new or replaced piles or structure.

27. **Waste Pilings Disposal:** Old piling and other waste material must be disposed of in a disposal facility approved for this purpose. There must be no temporary storage of piling or other waste material below top of bank or in any wetland, Federal Emergency Management Administration designated floodway, or an area historically subject to landslides.

28. **Anti-Perching Devices Required:** Pilings must be fitted with devices to effectively prevent perching by fish eating bird species.

29. **Extent of Dredging:** Maintenance dredging activity must be limited to the area and depths defined in the application, (Figure(s) 5, 5A and 5B).

30. **Return Wastewaters Prohibited:** This permit does not authorize the return of wastewaters from any operation employed to wash or process materials removed under this permit.

31. **Return of Debris / Refuse / Garbage Prohibited**: For debris management procedures, debris shall be properly disposed and not returned to waters of the U.S.

32. **Removal-General:**

    a. To the extent practicable, maintenance dredging activity must be staged from an upland or vessel-mounted position. If necessary to achieve the removal, heavy equipment may be staged on or traverse impervious surfaces in the dry below ordinary high water. In such

case, equipment must use water quality best management practices specified in the DEQ-issued Section 401 Water Quality Certification for the project.

33. **Removal by Closed Bucket:** To the extent material characteristics allow, the bucket must be sealed in the closed position to minimize sediment re-suspension. Moving material on the bottom to consolidate it before lifting is prohibited.

34. **Fish Entrainment:** The authorization holder must immediately report any fish observed that are entrained by operations to the nearest OR Department of Fish and Wildlife office. The permittee must provide access for OR Department of Fish and Wildlife staff to enter the project site for making fish entrainment observations.

35. **Placement – General:** Unless otherwise authorized by the governing regulatory agency or agencies, removed material must not be placed in any wetland, waterway, Federal Emergency Management Administration designated floodway, or in an area historically subject to landslides.

36. **Upland Placement:**

    a. Removed material placed in an upland site must meet the Oregon Department of Environmental Quality definition of clean fill or the use must be specifically allowed by the Oregon Department of Environmental Quality by rule, permit, or other authorization.
    b. Waste waters from the upland placement site must have adequate settling time before being discharged into a water of this State. Water discharged from the upland placement site must meet water quality requirements of the Oregon Department of Environmental Quality.

37. **Post-Activity Reporting:** Due annually, within 90 days of project completion, the authorization holder must submit to the Department a scaled drawing illustrating the actual project. This report shall include the following and use the same datum as used in the application.

    a. Completed Monitoring Report Cover Sheet, which includes permit number, permit holder name, monitoring date, and a statement of whether the project was constructed as authorized.
    b. Plan view figures with at least:
        i. The actual dredged and disposal boundaries,
        ii. Post removal and post disposal depths,
        iii. Scale bar and north arrow
    c. The volume of material removed performed under this authorization.
    d. All text and lines shall be clearly legible when printed on 8.5”x11.
    e. Discussion regarding any variation from the approved authorization.

Riprap Placement

38. **Riprap Placement Methods:** Riprap/rock must be placed under the following conditions:

    a. Only clean, erosion resistant rock from an upland source must be used as riprap. No broken concrete or asphalt must be used.

b. Riprap rock must be placed in a manner that does not increase the upland surface area.
c. Riprap must be placed in a way as to minimize impacts to the active stream channel.
d. Gravel or filter fabric should be placed behind the riprap rock, including the toe trench rock, as a filter blanket.
e. All riprap rock must be placed, not dumped, from above the bank line.

Rectification of Temporary Impacts

39. **Woody Vegetation Planting Required:** Planting of native woody vegetation must be completed before the next growing season after re-establishment of the pre-construction contours.

40. **Rectification Monitoring Reports Required:** Restoration and enhancement of riparian vegetation, including for temporary impacts is required to follow the Success Criteria below and as provided in the November 13, 2023 application addendum.

Monitoring and Reporting Requirements

41. **Post-Construction Report Required:** A post-construction report demonstrating as-built conditions and discussing any variation from the approved plan must be provided to DSL within 90 days of revegetation, which shall occur during the fall, winter, or spring immediately following the completion of grading within the required planting areas. The post-construction report must include:

    a. A scaled drawing, accurate to 1-foot elevation, clearly showing the following:
        i. Finished contours of the site.
        ii. Current tax lot and right-of-way boundaries.
        iii. Photo point locations.
        iv. Permanently and temporarily impacted waterway boundaries identified separately, with square foot listed.
    b. Photos from fixed photo points. This should clearly show the site's conditions.
    c. A narrative that describes any deviation from the approved plan.

42. **Annual Monitoring Reports Required:** Monitoring is required until DSL has officially released the site from further monitoring. The permittee must monitor the site to determine whether the site is meeting performance standards for a minimum period of 5 growing seasons after completion of all the initial plantings. Annual monitoring reports are required and are due by November 1. Failure to submit the required monitoring report by the due date may result in an extension of the monitoring period, forfeiture of the financial security and/or enforcement action.

43. **Extension of the Monitoring Period:** The monitoring period may be extended, at the discretion of DSL, for failure of the site to meet performance standards for the final two consecutive years without corrective or remedial actions (such as irrigation, significant weed/invasive plants treatment or replanting) or when needed to evaluate corrective or remedial actions.

44. **Contents of the Annual Monitoring Report:** The annual monitoring report must include the following information:

a. Completed Monitoring Report Cover Sheet, which includes permit number, permit holder name, monitoring date, report year, performance standards, and a determination of whether the site is meeting performance standards.
b. Site location map(s) that clearly shows the impact site and mitigation site boundaries.
c. Site Plan that clearly shows at least the following:
    i. The area seeded, with the square foot area listed.
    ii. The area planted with trees and shrubs, with the square foot area listed.
    iii. Current tax lot and right-of-way boundaries.
    iv. Permanent monitoring plot locations that correspond to the data collected and fixed photo-points. These points should be overlaid on the as-built map.
    v. Restoration and enhancement areas identified separately, with the square foot area of each listed.
d. A brief narrative that describes maintenance activities and recommendations to meet success criteria. This includes when irrigation occurred and when the above ground portion of the irrigation system was or will be removed from the site.
e. Data collected to support the conclusions related to the status of the site relative to the performance standards listed in this permit (include summary/analysis in the report and raw data in the appendix). Data should be submitted using the DSL Mitigation Monitoring Vegetation Spreadsheet or presented in a similar format as described in DSL's Routine Monitoring Guidance for Vegetation.
f. Photos from fixed photo points (include in the appendix).
g. Other information necessary or required to document compliance with the performance standards listed in this permit.

45. **Corrective Action May Be Required:** DSL retains the authority to require corrective action in the event the performance standards are not accomplished at any time within the monitoring period.

Performance Standards

To be deemed successful, the project site areas must meet the following performance standards, as determined by DSL:

46. **Irrigation Required:** The site must be irrigated as described in the Mitigation Plan. In the November 13, 2023 application memorandum.

47. **Establishment of Permanent Monitoring Locations Required:** Permanent plot locations must be established during the first annual monitoring in sufficient number and locations to be representative of the site. The permanent plot locations must be clearly marked on the ground.

Riparian Areas

48. **Native Species Cover:** The cover of native species, as defined in the USDA Plants Database, in the herbaceous stratum is at least 60%.

49. **Invasive Species Cover:** The cover of invasive species is no more than 20%. A plant species should automatically be labeled as invasive if it appears on the current Oregon Department of Agriculture noxious weed list, plus known problem species including *Phalaris arundinacea, Mentha pulegium, Holcus lanatus, Anthoxanthum odoratum,* and the last crop plant if it is non-native. Non-native plants should be labeled as such if they are listed as non-native on the USDA Plants Database. Beginning in Year 2 of monitoring, DSL will consider a non-native plant species invasive if it comprises more than 15% cover in 10% or more of the sample plots in any habitat class and increases in cover or frequency from the previous monitoring period. Plants that meet this definition should be considered invasive for all successive years of monitoring. After the site has matured to the stage when desirable canopy species reach 50% cover, the cover of invasive understory species may increase but may not exceed 30%.

50. **Woody Vegetation:** The density of woody vegetation is at least 1,600 live native plants (shrubs) and/or stems (trees) per acre OR the cover of native woody vegetation on the site is at least 50%. Native species volunteering on the site may be included, dead plants do not count, and the standard must be achieved for 2 years without irrigation.

Monitoring and Reporting Schedule

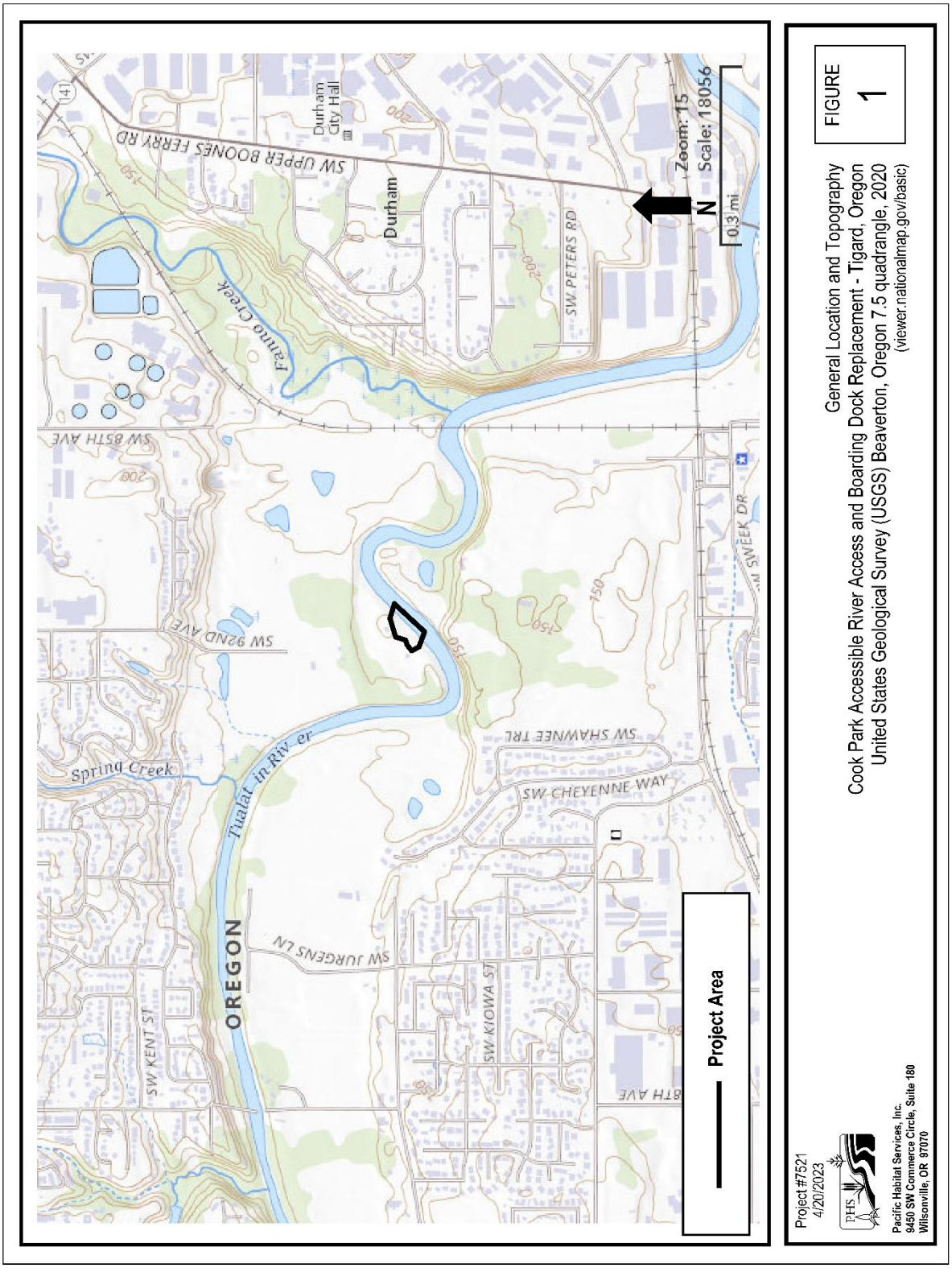
Report	Requirements	Schedule
Post-Construction	Post-construction report	90 days after completion of revegetation
First Annual Report	Establishment of permanent monitoring locations Vegetation performance standards	After one growing season of all proposed plantings
Second Annual Report	Vegetation performance standards	After two growing seasons
Third and Fourth Annual Reports	Vegetation performance standards	After three and four growing seasons, respectively.
Fifth Annual Report (or final report if the monitoring period has been extended)	Vegetation performance standards	After five growing seasons

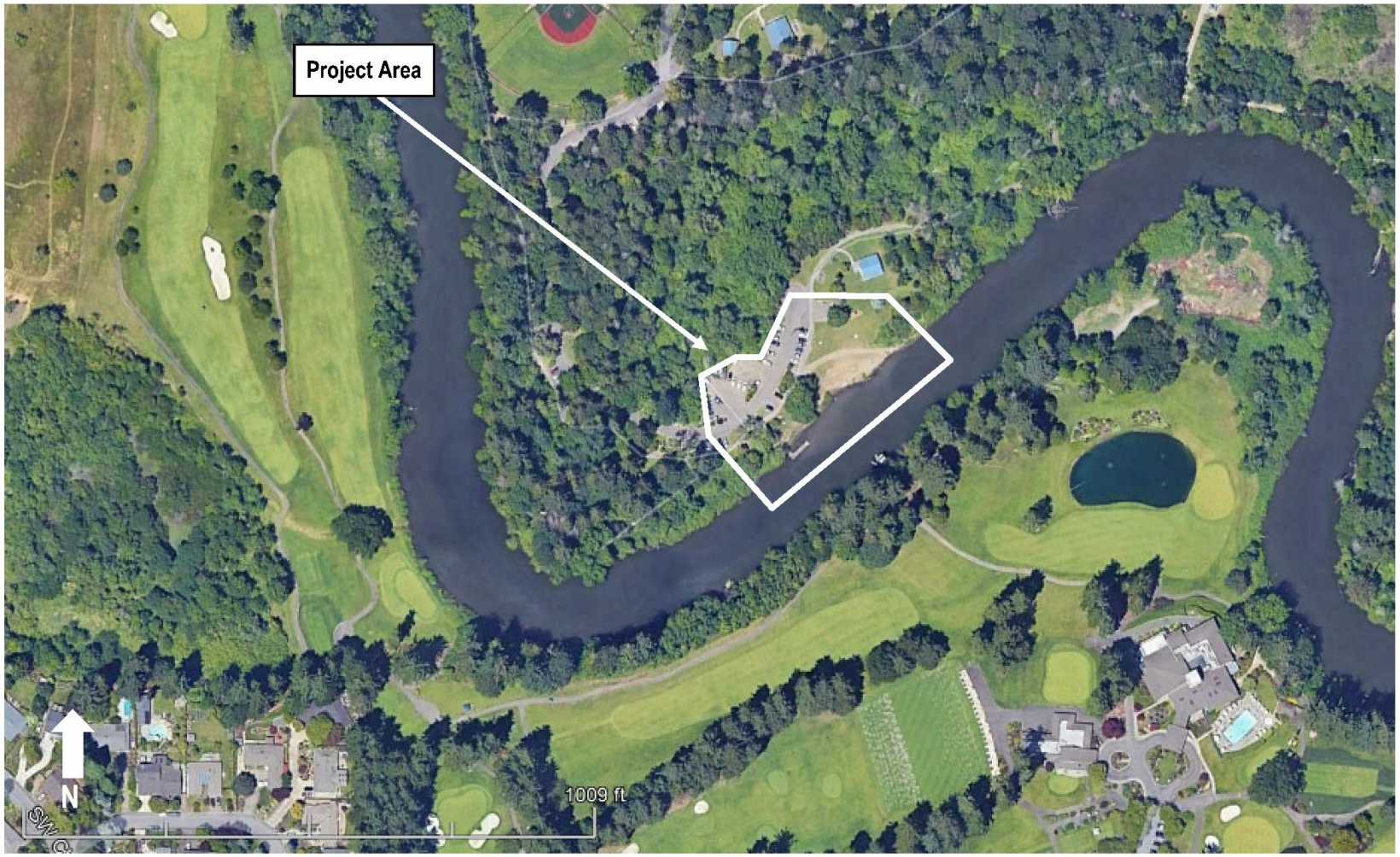
ATTACHMENT B

Permit Holder: City of Tigard

Project Name: Cook Park Accessible River Access and Dock Replacement Project

Maps and Drawings for Removal/Fill Permit No. 64652-RF



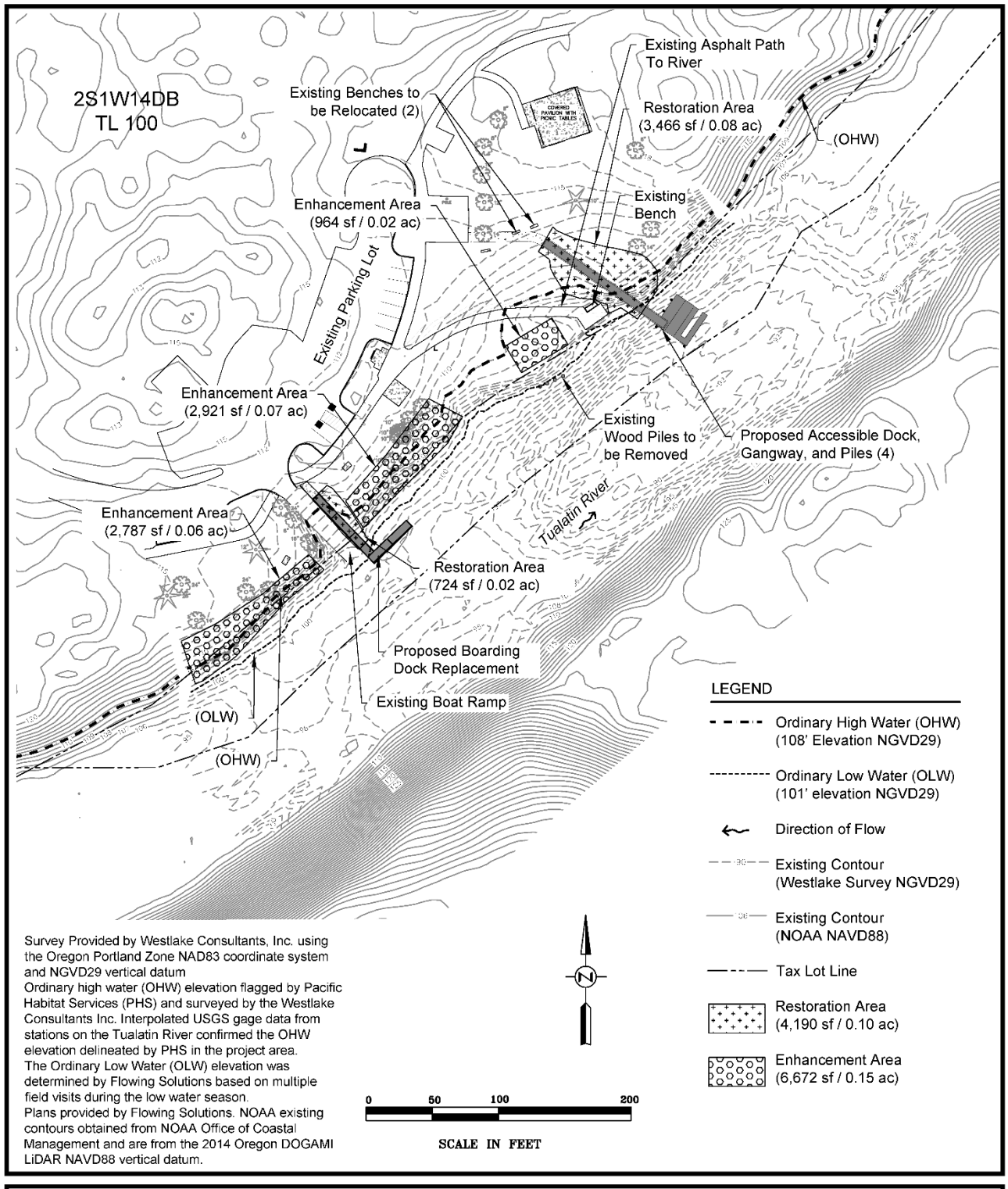


Project #7521
4/20/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Aerial Photo (July, 2022)
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
GoogleEarth, 2023

FIGURE
3



PHS
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Restoration and Enhancement Plan
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 9

8-2-2023

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DEPARTMENT OF THE ARMY PERMIT

Permittee: City of Tigard
13125 SW Hall Boulevard
Tigard, OR 97223

Permit No: NWP-1994-897

Issuing Office: U.S. Army Corps of Engineers, Portland District

NOTE: The term "you" and its derivatives as used in this permit means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: You are authorized to complete the following work to maintain and improve public access to the Tualatin River at the park:

- Maintenance dredge 9 cubic yards of sediment from a 256 square foot area beneath the existing dock and gangway at the project site.

- Dredge 53 cubic yards of sediment from a 919 square foot area within the footprint of the gangway for the proposed floating dock.

- Temporarily discharge up to 94 cubic yards of gravel fill material into 2,700 square feet of the Tualatin River in order to construct a staging area for construction equipment necessary to complete the proposed work.

The work also includes the removal and replacement of an existing 550 square foot boarding dock at the project site and to construct a new 1,078 square foot access dock. However, the dock/pier construction will not require a Corps Section 10 Rivers and Harbors Act authorization.

Purpose: The project purpose is to improve access to a navigable waterway.

Project Location: The project is located on the Tualatin River at Cook Park, 17005 SW 92nd Avenue in Tigard, Washington County, Oregon. The site is in Section 14, Township 2 South, Range 1 West. Latitude and Longitude 45.394118°, -122.771645°.

Drawings: Fifteen (15 of drawings/maps) (Attachment 1)

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on June 20, 2029. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition No. 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions (Attachment 2).

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

a. 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 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 U.S Army 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.

b. Notification and Reporting:

(1) Upon starting the activities authorized by this permit, Permittee shall notify the U.S. Army Corps of Engineers, Portland District, Regulatory Branch that the work has started. Notification shall be provided by e-mail to cenwp.notify@usace.army.mil and the email subject line shall include: NWP-1994-897-1, Washington County.

(2) Permittee shall notify the U.S. Coast Guard District Thirteen of the project by email at D13-SMB-D13-LNM@uscg.mil at least 14 days prior to commencing dredging operations, so the project information can be issued in the Local Notice to Mariners.

(3) Permittee shall complete and sign the enclosed Compliance Certification (Attachment 3). Permittee shall submit the completed certification to the U.S. Army Corps of Engineers, Portland District, Regulatory Branch within 30 days of completion of each dredging event authorized by the permit. The completed certification shall be provided by e-mail to cenwp.notify@usace.army.mil and the email subject line shall include: NWP-1994-897-1, Washington.

(4) Permittee shall provide a copy of the permit transmittal letter, permit form, and permit drawings to all contractors performing any work authorized by Corps No. NWP-1994-897.

c. Sediment evaluation: If dredging cannot be completed prior to the sediment suitability re-evaluation date identified by PSET as May 31, 2031, per the most recent “No Test” determination for the respective dredging locations, you shall coordinate with the PSET to obtain a determination regarding the need to re-characterize the dredged material. Coordination with PSET shall be initiated at least 9 months prior to the respective date.

d. Permittee shall dispose of all dredge materials at a suitable upland location, and materials shall be adequately stabilized to minimize increases in turbidity levels and indirect impacts to wetlands and other aquatic systems. The material shall be placed in a location and manner that prevents its discharge into waterways or wetlands. In the event of spills, affected material shall be taken to an appropriate upland location (and properly disposed of in accordance with any state standards or requirements).

e. This Corps permit does not authorize you to take an endangered species in particular those species identified in Attachment 4. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit, or a biological opinion under ESA Section 7,

with “incidental take” provisions with which you must comply). The National Marine Fisheries Service (NMFS) SLOPES IV In-water Over-water Structures programmatic biological opinion dated April 5, 2012 (NMFS Reference Number 2011/05585), contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the “incidental take” that is also specified in the opinion. Your authorization under this Corps permit is conditional upon your compliance with all of the applicable mandatory terms and conditions associated with the incidental take statement. Failure to comply with the applicable terms and conditions associated with incidental take of this opinion, where a take of the listed species occurs, would constitute an unauthorized take, and it would also constitute noncompliance with your Corps permit. The NMFS is the appropriate authority to determine compliance with the terms and conditions of its opinion and with the ESA.

f. Permittee shall fully implement all applicable Proposed Design Criteria (PDC) of the *SLOPES IV In-water Over-water Structures* programmatic biological opinion. A detailed list of the PDCs are enclosed (Attachment 4). The applicable PDCs for the project include numbers: 6, 11, 12, 13, 15, 16, 17, 21, 24, 28, 29, 30, 32.

g. Permittee shall complete and submit an *Action Completion Form*, which is provided in Attachment 4, within 60 days of completing all work below ordinary high water. Submit the form by email to cenwp.notify@usace.army.mil and include the Corps project number and county in the email subject line.

h. All in-water work shall be performed during the in-water work period(s) of June 1 to September 30 to minimize impacts to aquatic species.

i. Permittee shall install bird excluder devices on all piles to reduce predation by piscivorous birds.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(**X**) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
(**X**) Section 404 of the Clean Water Act (33 U.S.C. 1344).
( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this Authorization:

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures

ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE SIGNATURE)	June 20, 2024 **(DATE)**
Rick Gruen **(PRINTED NAME)**	Public Works Infrastructure Manager **(TITLE)**

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

FOR THE COMMANDER, LARRY D. CASWELL, JR., PE, PMP, COLONEL, U.S. ARMY, DISTRICT COMMANDER and DISTRICT ENGINEER:

Katharine A. Mott Chief, Policy and Compliance Section Regulatory Branch	20 June 2024 **(DATE)**

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign below.

PERMIT TRANSFEREE:

_____ _____

Transferee Signature **DATE**

_____

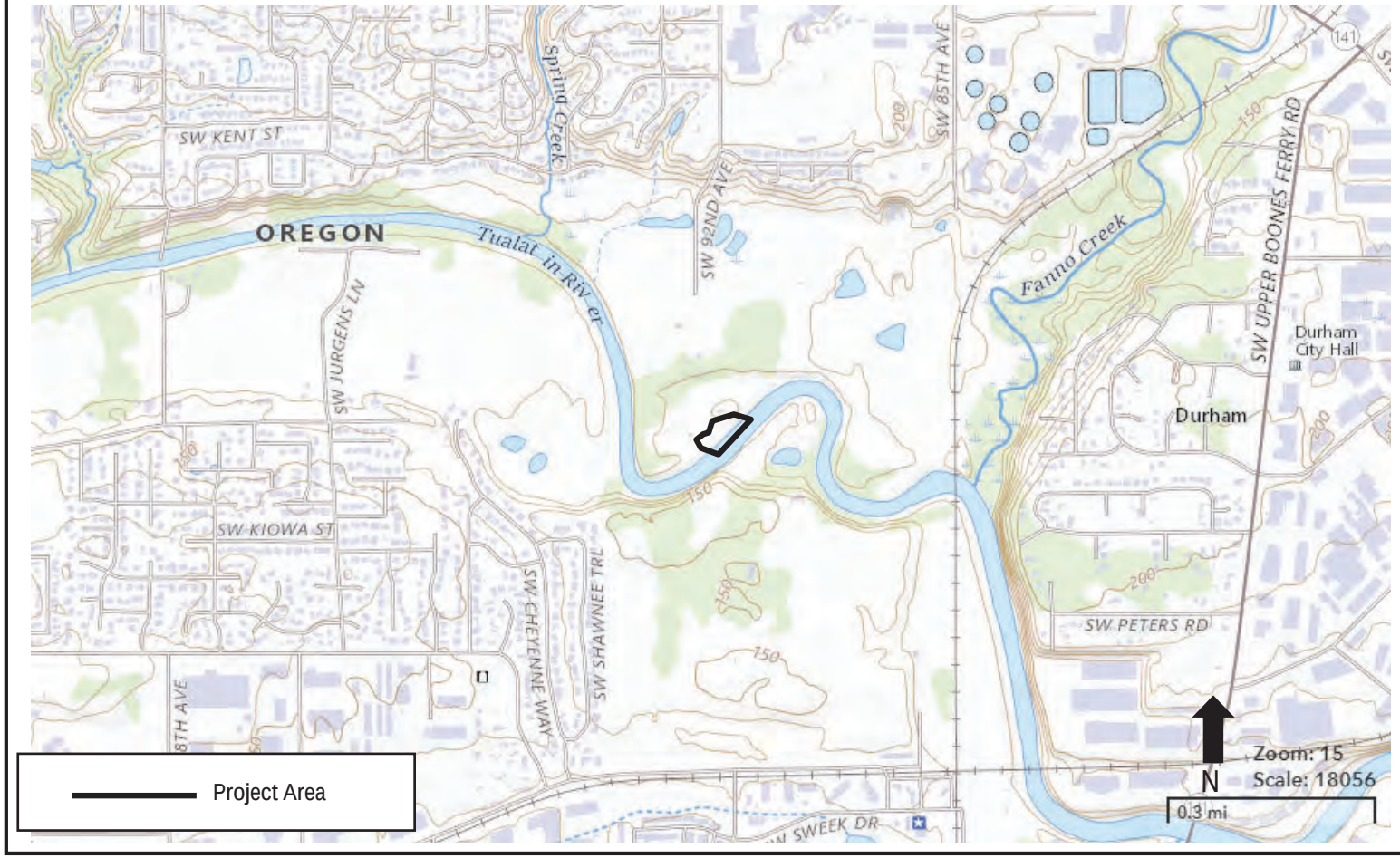
Name (Please print)

_____

Address

_____

City, State, and Zip Code



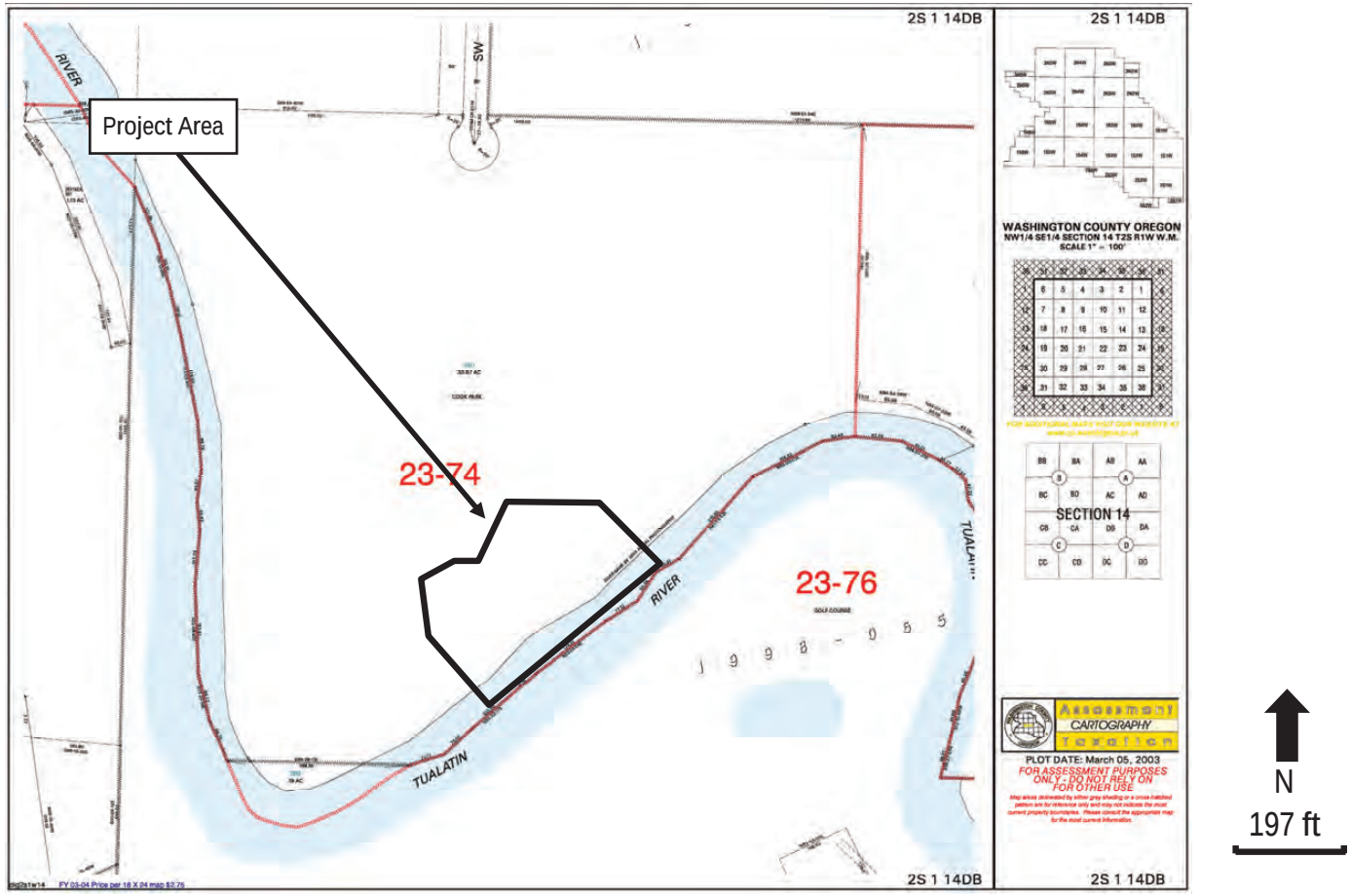
Project #7521
4/20/2023

PHS

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
United States Geological Survey (USGS) Beaverton, Oregon 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE
1



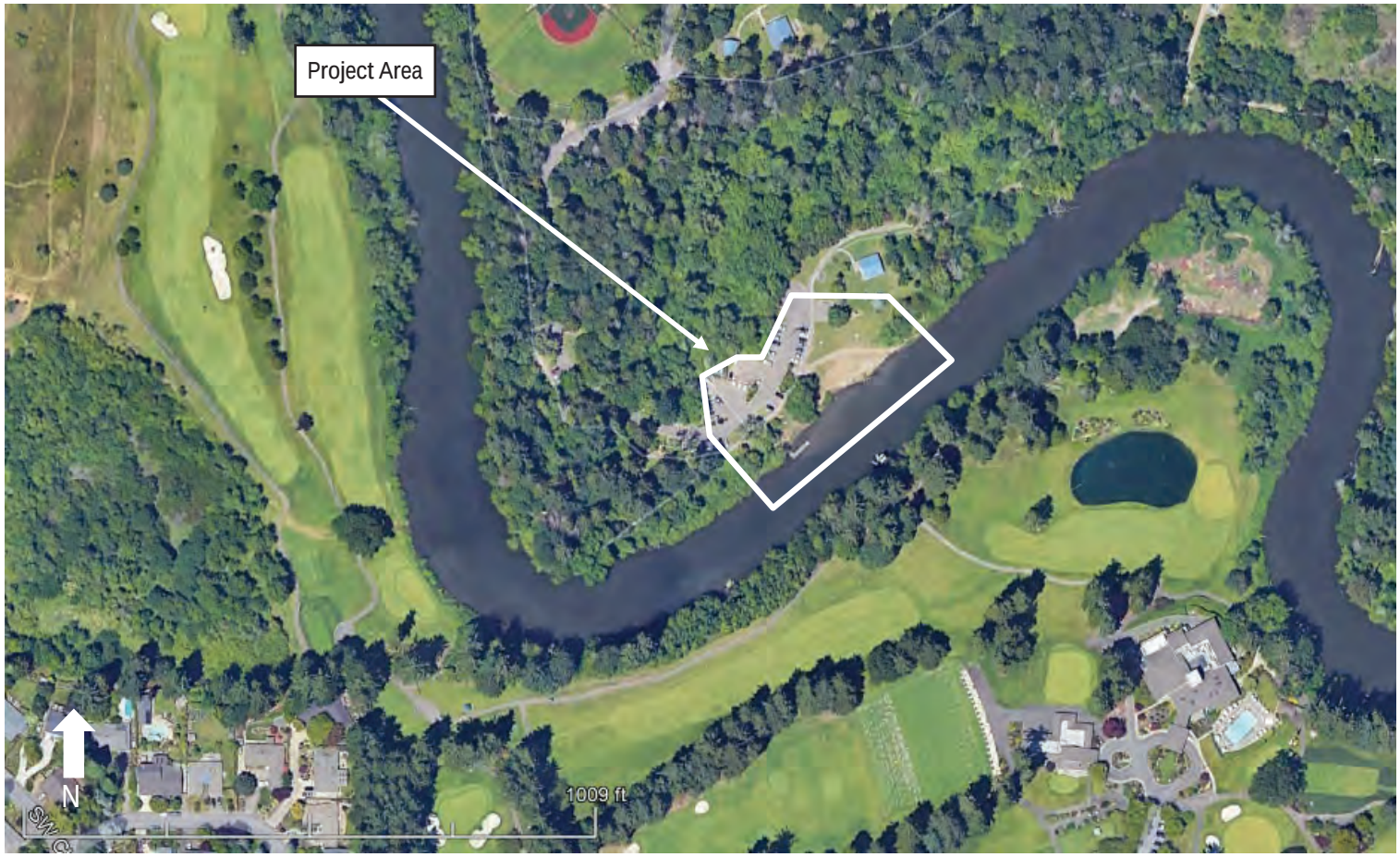
Project #7521
4/20/2023

PHS

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Tax Lot Map
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
The Oregon Map (ormap.net)

FIGURE
2

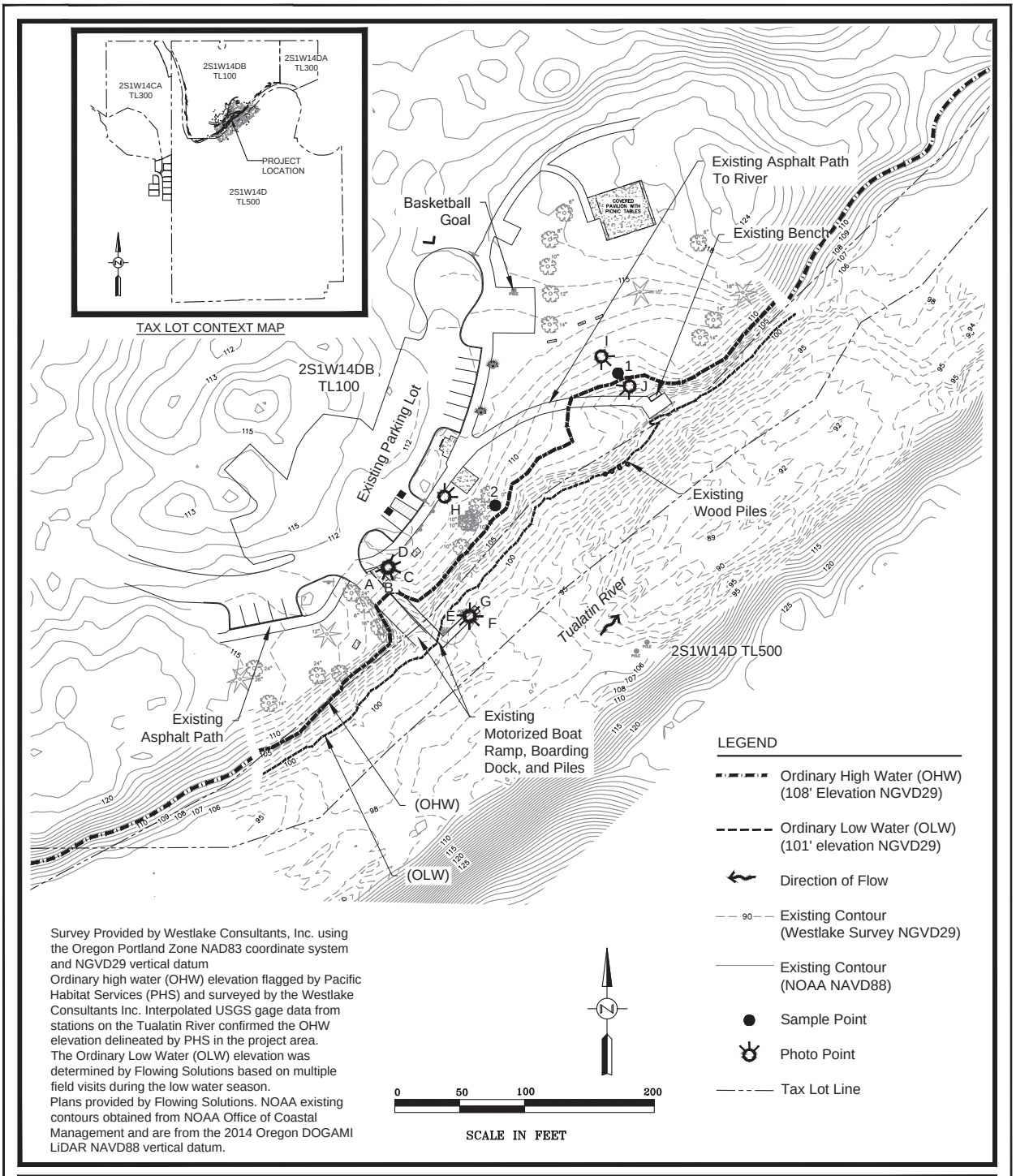


Project #7521
4/20/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Aerial Photo (July, 2022)
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
GoogleEarth, 2023

FIGURE
3



Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

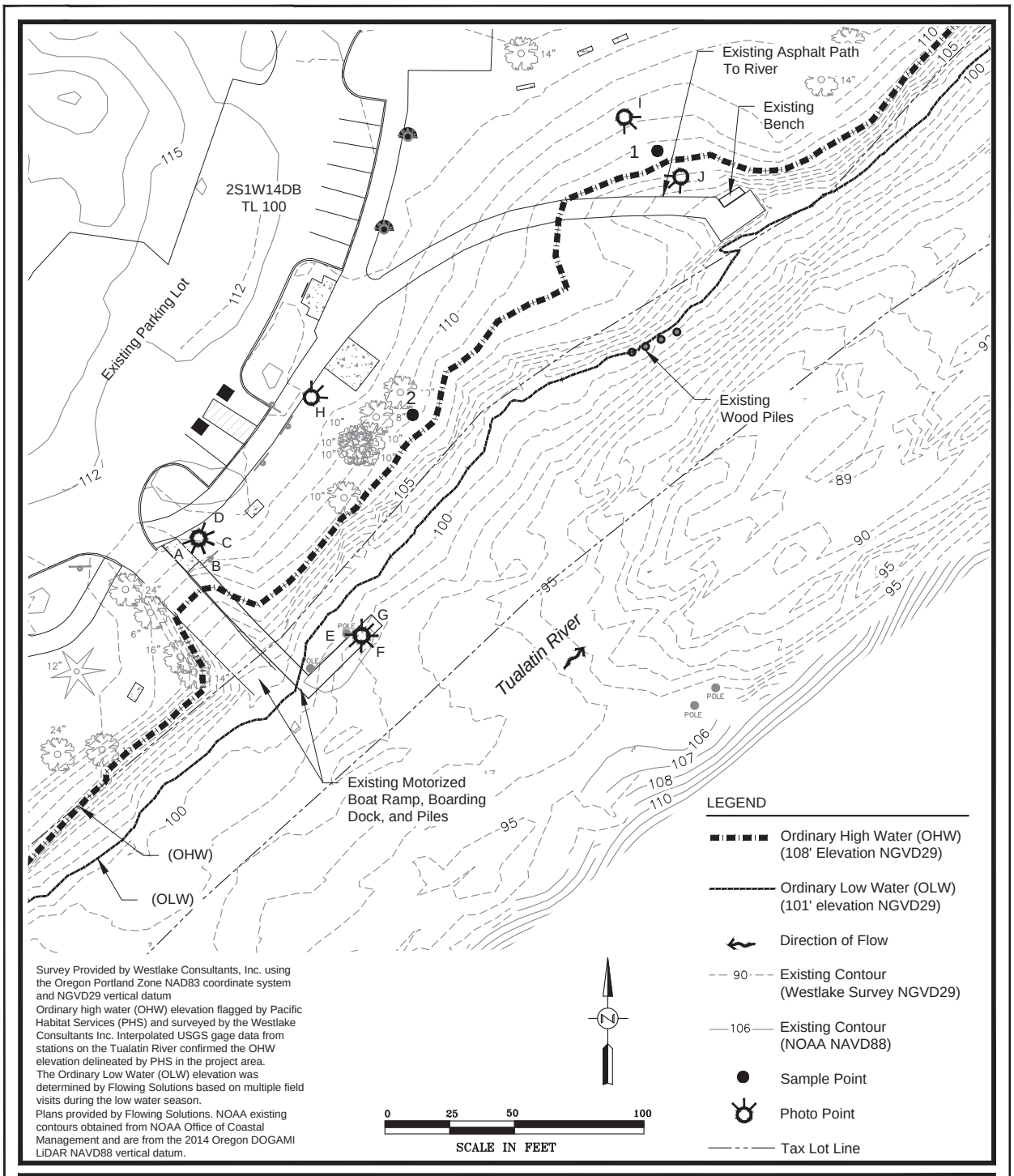
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Existing Conditions Overview
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4

8-2-2023

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Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum

Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.

The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.

Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

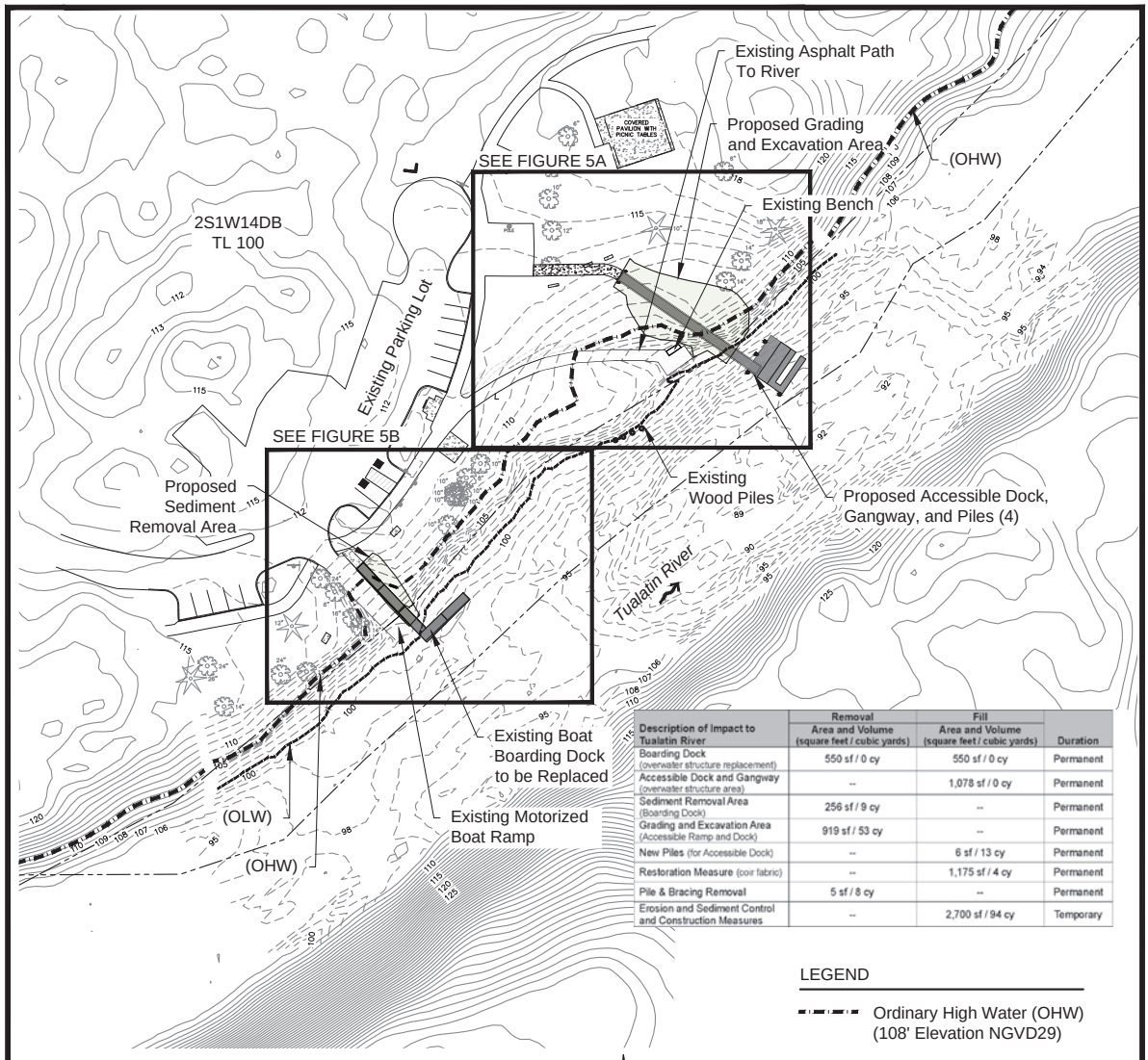
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Existing Conditions
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
4A

8-2-2023

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Description of Impact to Tualatin River	Removal Area and Volume (square feet / cubic yards)	Fill Area and Volume (square feet / cubic yards)	Duration
Boarding Dock (overwater structure replacement)	550 sf / 0 cy	550 sf / 0 cy	Permanent
Accessible Dock and Gangway (overwater structure area)	--	1,078 sf / 0 cy	Permanent
Sediment Removal Area (Boarding Dock)	256 sf / 9 cy	--	Permanent
Grading and Excavation Area (Accessible Ramp and Dock)	919 sf / 53 cy	--	Permanent
New Piles (for Accessible Dock)	--	6 sf / 13 cy	Permanent
Restoration Measure (coir fabric)	--	1,175 sf / 4 cy	Permanent
Pile & Bracing Removal	5 sf / 8 cy	--	Permanent
Erosion and Sediment Control and Construction Measures	--	2,700 sf / 94 cy	Temporary

LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Existing Contour (NOAA NAVD88)
- Tax Lot Line

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

0 50 100 200

SCALE IN FEET

PHS

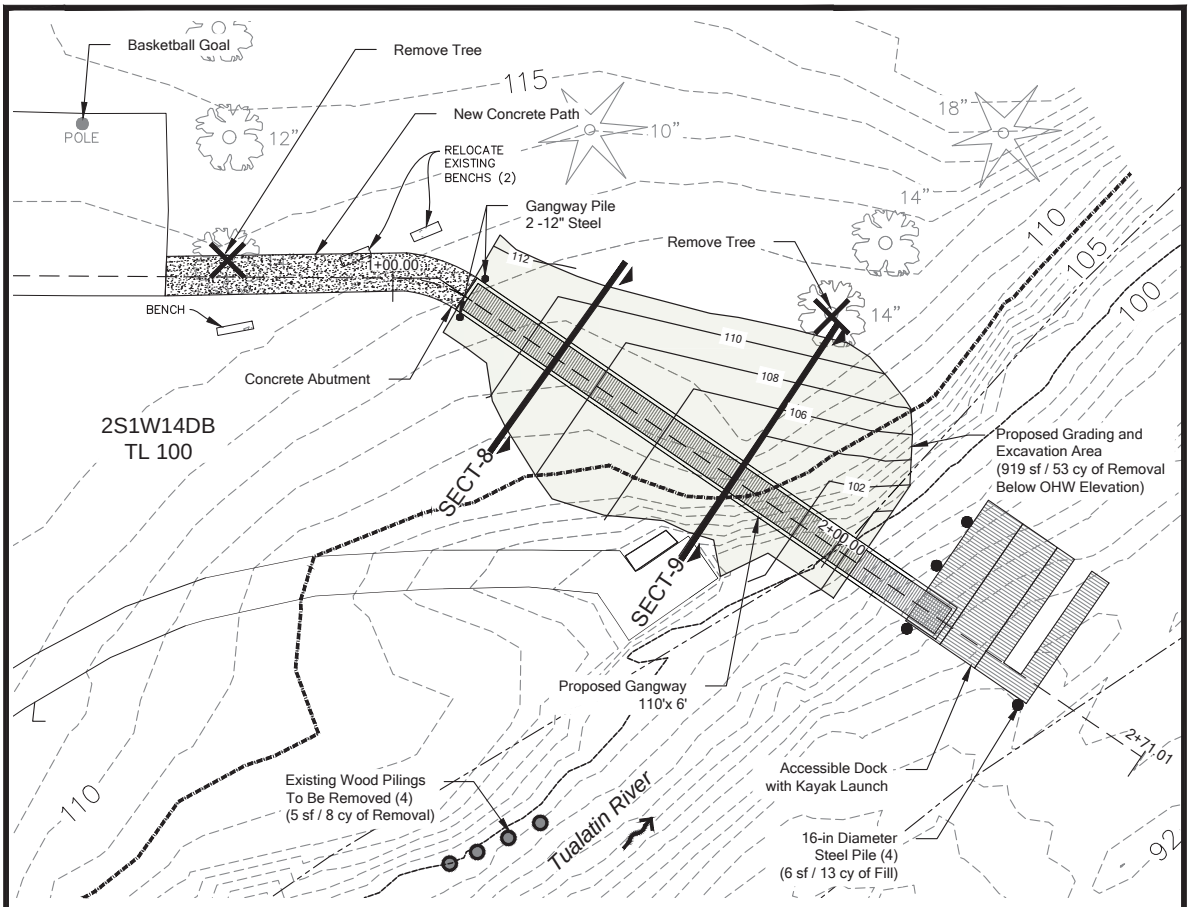
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Site Plan Overview and Sheet Index
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 5

8-2-2023

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NOTES:

1. See Figure 6A-1 for Profile, Figure 6A-2 for Sections 8 and 9, and Figure 6A-3 for OSMB Kayak Dock Prototype Plan and Profile.
2. See Figure 7 for temporary impact areas and work areas

LEGEND

- Project Area Boundary
- Waters of the State/US
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
- Tax Lot Line

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

0 15 30 60

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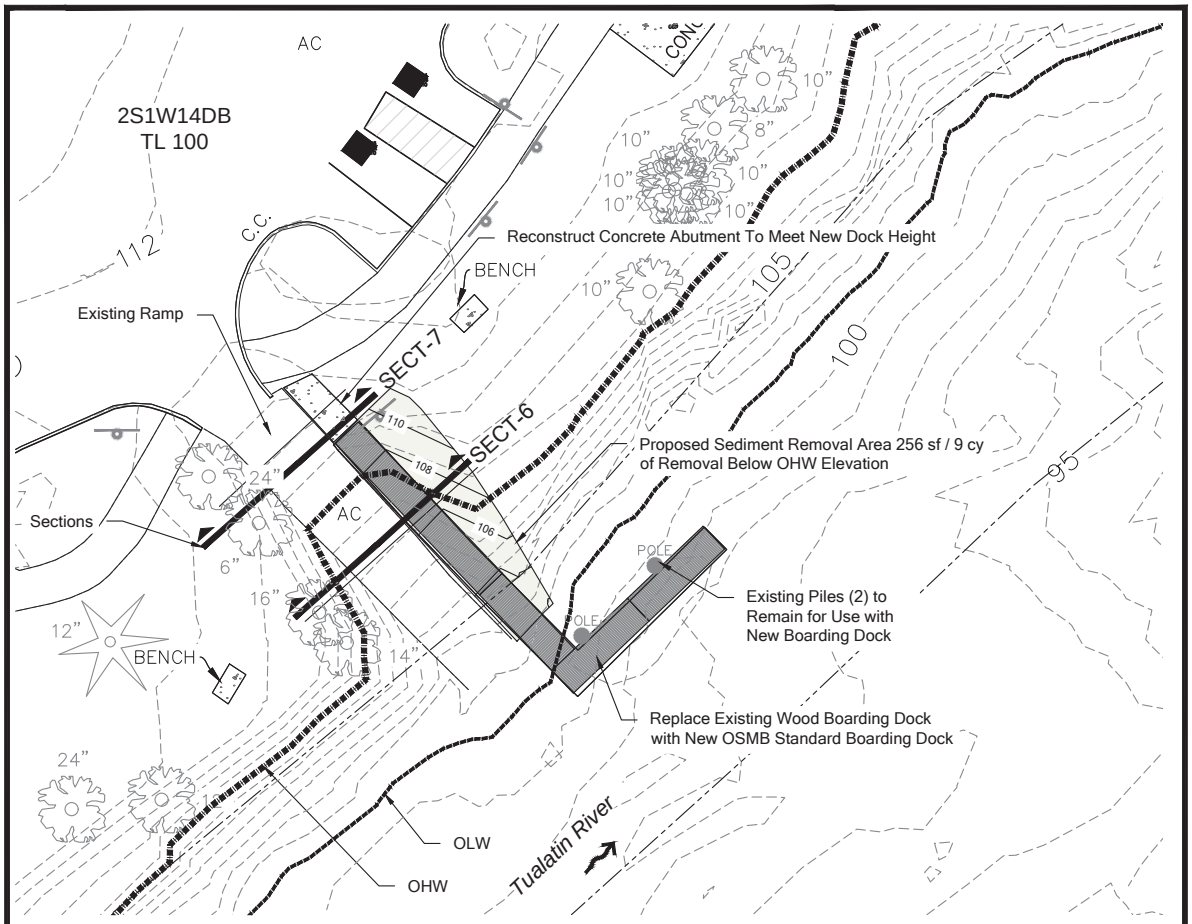
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Proposed Site Plan and Grading for Accessible Ramp and Dock
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 5A

8-2-2023

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NOTE:
For Sections see Figure 6B-1 and for OSMB Standard Boarding Dock see Figure 6B-2

LEGEND

- Project Area Boundary
- Waters of the State/US
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
- Tax Lot Line

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

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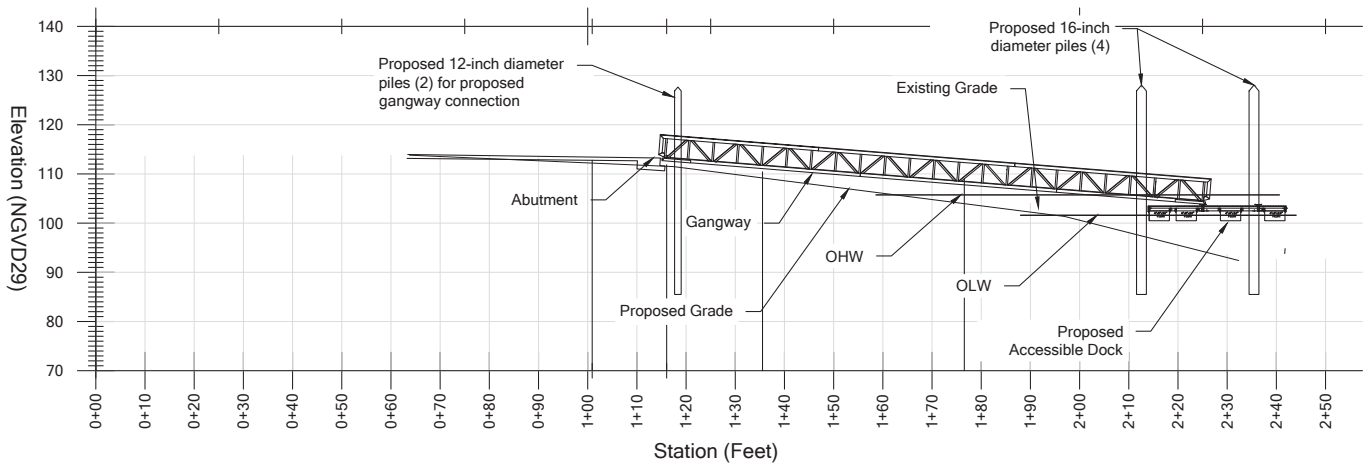
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Boarding Dock Replacement and Sediment Removal Area
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 5B

8-2-2023

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9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

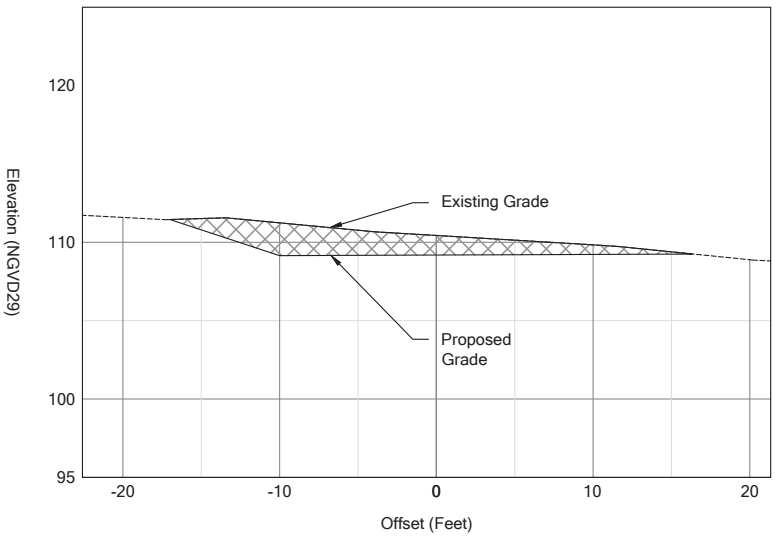
Accessible Dock, Gangway, and Piles Profile
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6A-1

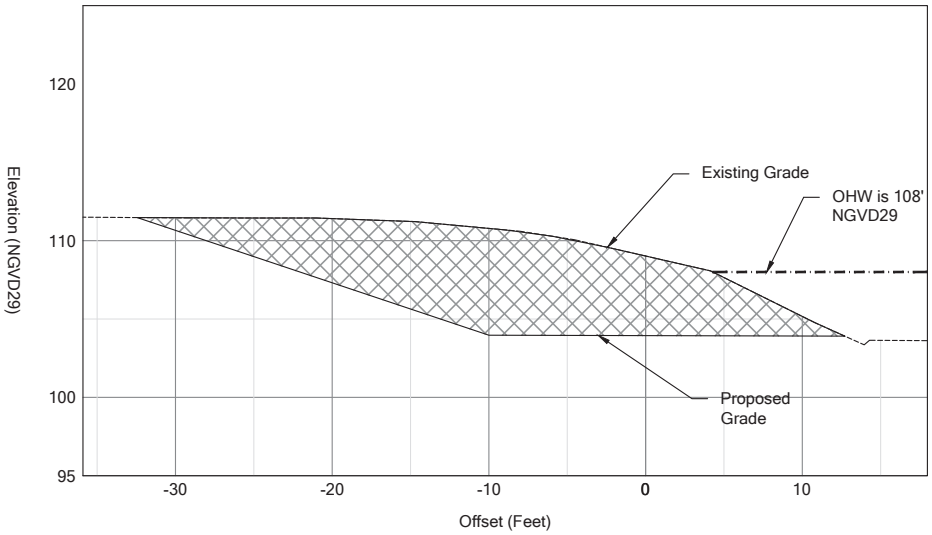
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Sect-8 - 1+35.54



Sect-9 - 1+76.57



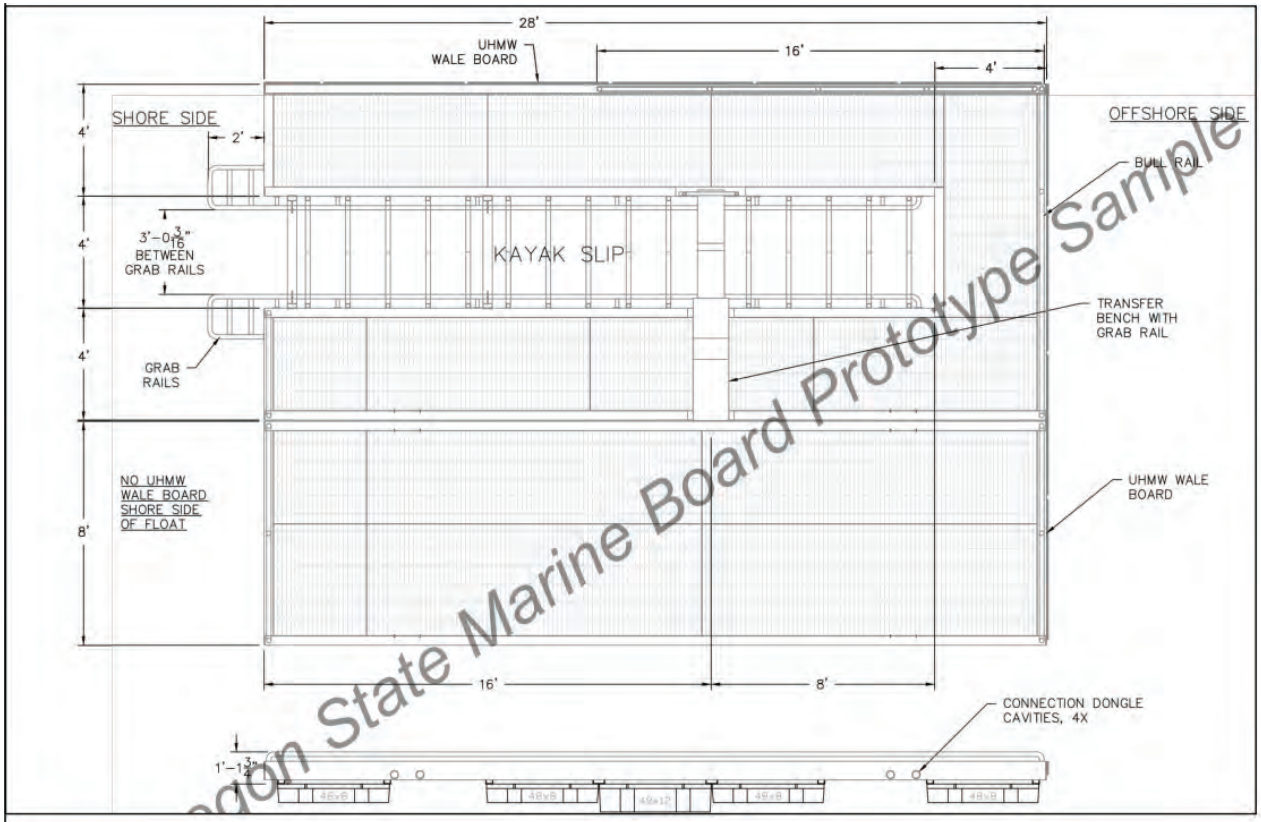
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Accessible Ramp and Dock Bank Grading Area Sections
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6A-2

8-1-2023

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OSMB Kayak Dock Prototype
Plan/Profile

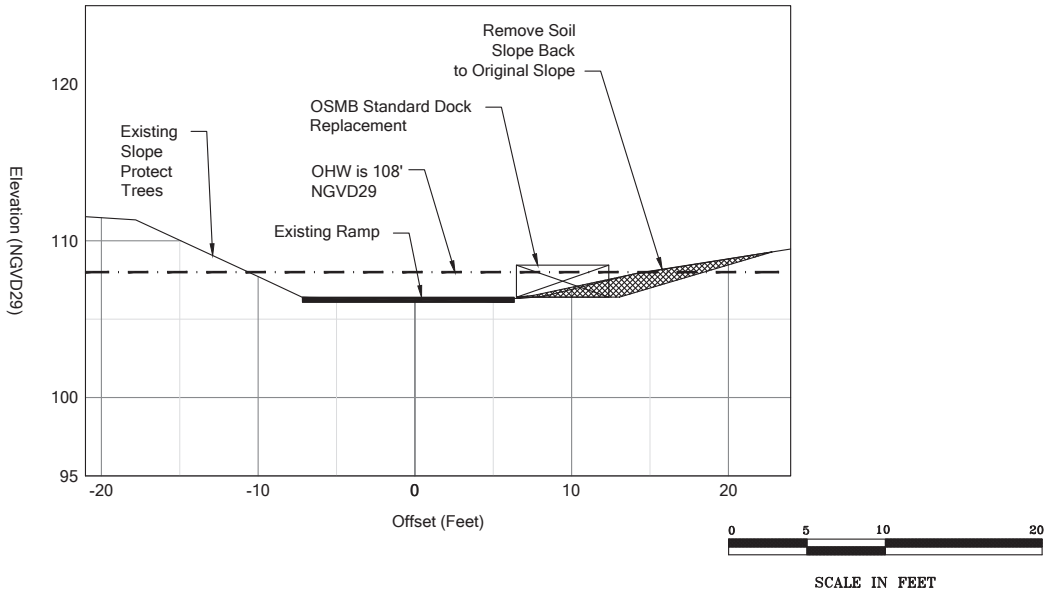
Project #7521
4/20/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

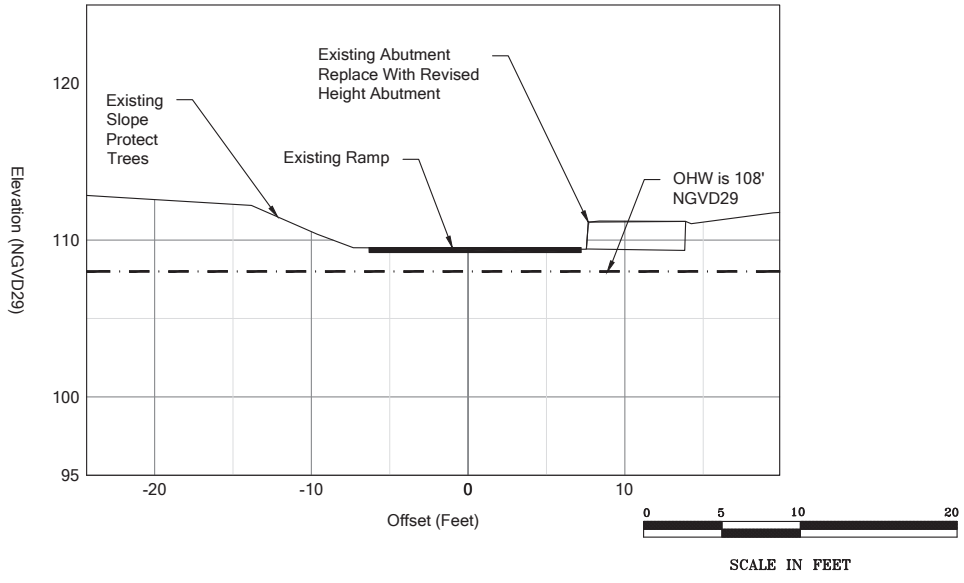
Oregon State Marine Board Kayak Dock Prototype
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE
6A-3

Sect-6 - 0+53.60



Sect-7 - 0+75.32



PHS

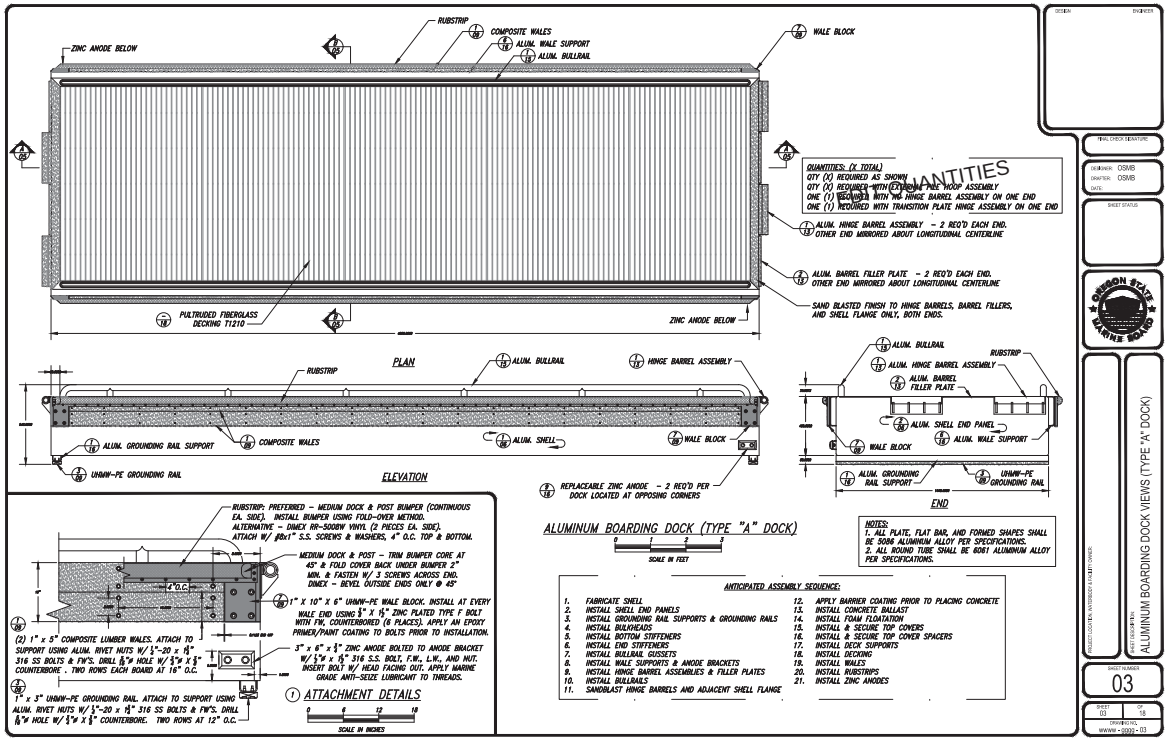
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Standard Boarding Dock Sections
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6B-1

8-2-2023

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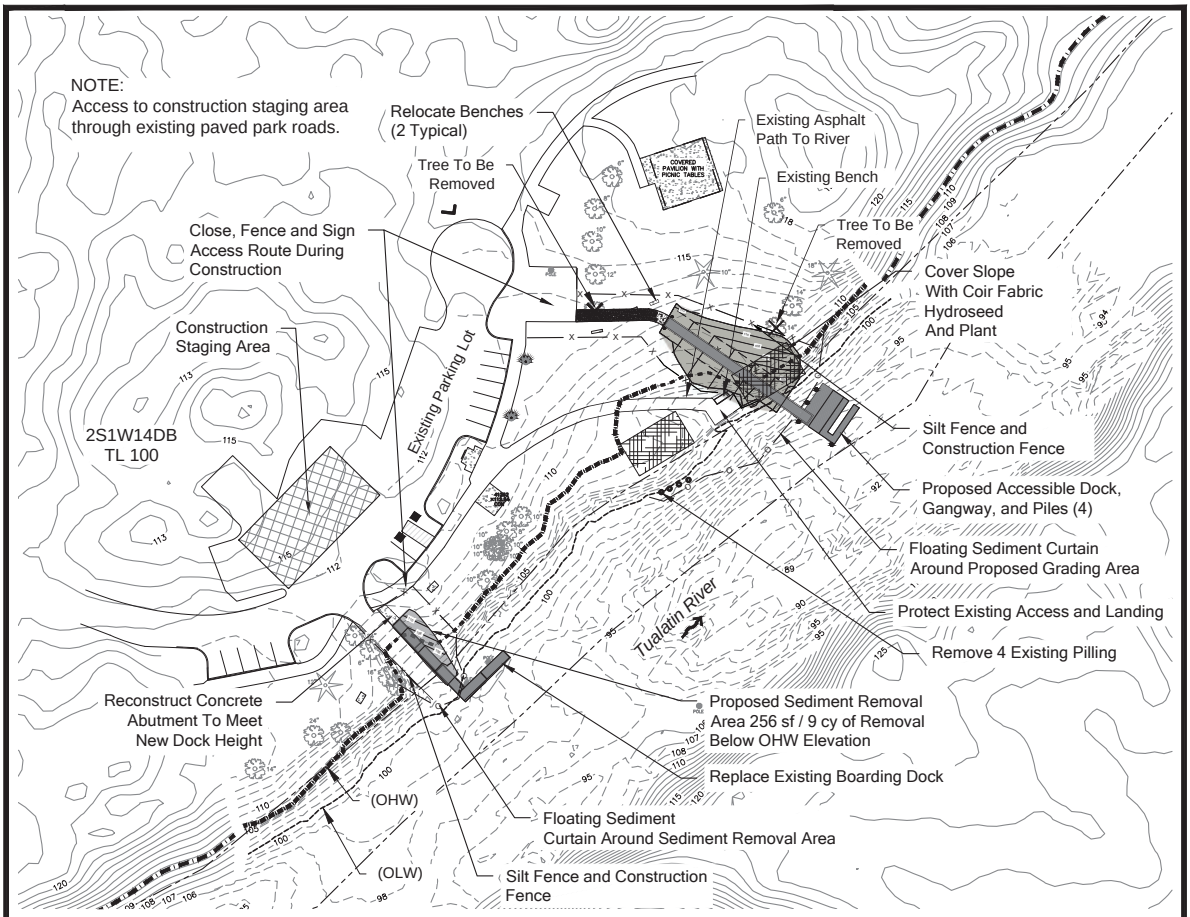
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Boarding Dock Plan and Profile
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6B-2

4-20-2023

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NOTES:

1. Temporary work pad locations are estimates based on the site survey and anticipated construction equipment.
2. Final temporary work pad locations to be determined by construction contractor based on field conditions at the time of construction and construction equipment limitations.
3. Temporary work pads will not be placed in standing water without prior approval from the US Army Corps of Engineers and Oregon Department of State Lands.

LEGEND

- Project Area Boundary
- Tax Lot Line
- Waters of the State/US
- Tree To Be Removed
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Temporary Work Pad
- Grading Area
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Sediment Fence
- Direction of Flow
- Floating Curtain
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)

0 50 100 200

SCALE IN FEET

N

See Figure 5 for survey information, data sources, and accuracy statement

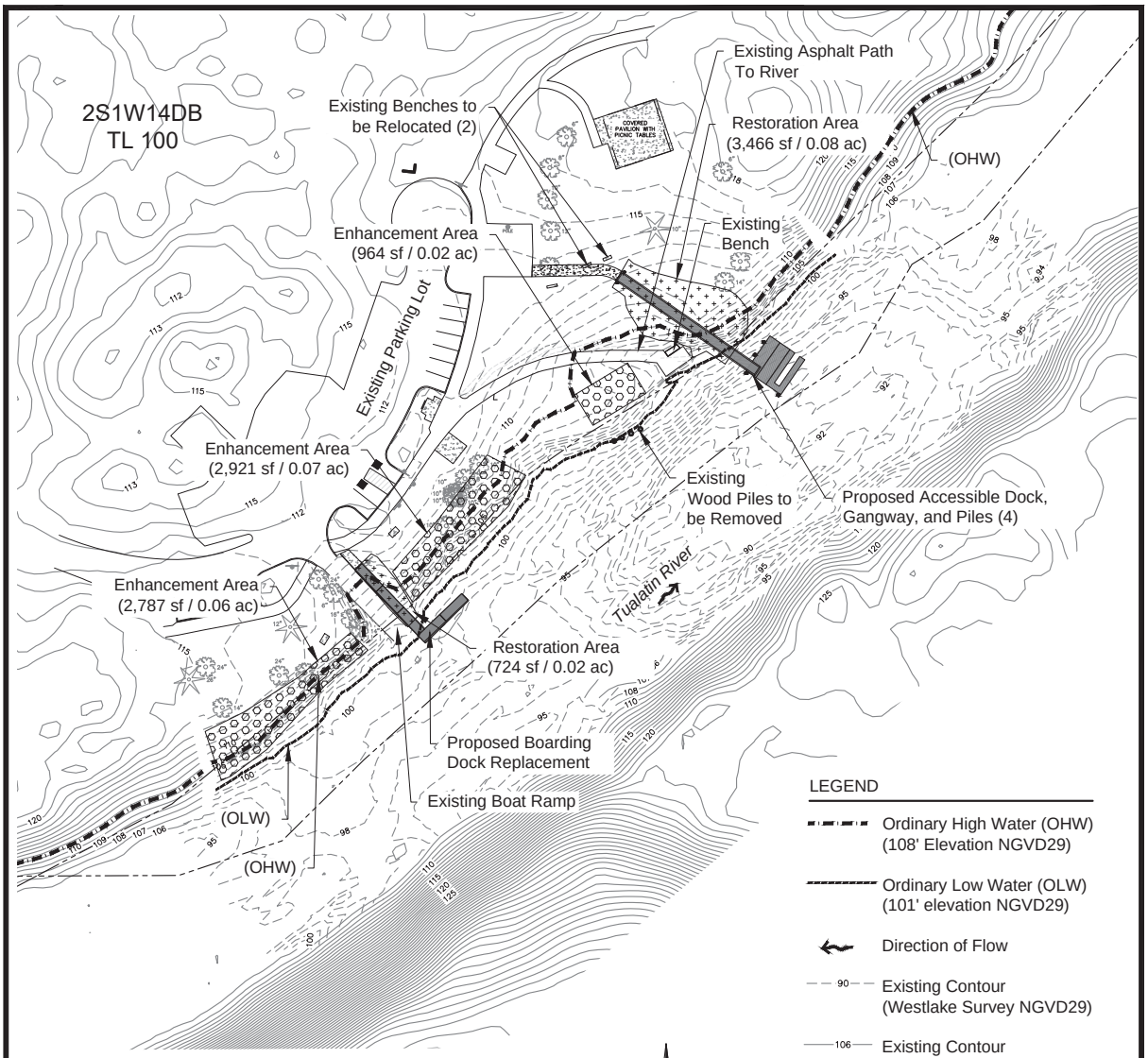
Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Demolition and Erosion Control Plan
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 7

8-2-2023

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Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

Pacific Habitat Services,Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Restoration and Enhancement Plan
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
9

8-2-2023

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Oregon
Tina Kotek, Governor

Department of Environmental Quality
Northwest Region Portland Office/Water Quality
700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100
(503) 229-5263
FAX (503) 229-6957
TTY 711

March 22, 2024

Jeff Peck
City of Tigard
13125 SW Hall Blvd
Tigard, OR 97223

RE: 1994-897; Cook Park Accessible River Access and Dock Replacement 401 Water Quality Certification

The Department of Environmental Quality (DEQ) has reviewed the U.S. Army Corps of Engineers (USACE) Permit application # 1994-897 (Department of State Lands [DSL] # 64652, pursuant to a request for a Clean Water Act Section 401 Water Quality Certification (WQC) received on February 2, 2024. DEQ's 401 WQC public comment opportunity was circulated with the USACE public notice from February 13, 2024 to March 14, 2024 and DEQ received no water quality comments.

According to the application, the City of Tigard ("the Applicant") proposes to impact waters to replace a boarding dock, gangway and path at Cook Park in the City of Tigard. The project site is located on waters on the Tualatin River in Tigard, in Washington County, Oregon (Section 14 DB, Township 2S, Range 1W).

Project Description: The Applicant proposes to impact approximately 575 linear feet of stream by excavating approximately 53 cubic yards within the footprint of the gangway for the proposed dock and 9 cubic yards beneath the existing dock and gangway. Approximately 8 cubic yards will be excavated for the removal of four timber pilings. The project will permanently discharge approximately 17 cubic yards and temporarily discharge approximately 95 cubic yards of fill material into the Tualatin River to replace a boarding dock, including the installation of four steel piles. The project will create approximately 0.02 acres in impervious surface. In lieu of treating stormwater on-site, the City of Tigard will treat stormwater at the Murdock Street Sidewalk and Storm consistent with SLOPES IWOW opinion. An extended dry basin designed to Clean Water Services (CWS) standards in conjunction with a water quality orifice will be used to treat stormwater pollutants.

Status of Affected Waters of the State: The Tualatin River at river mile 9.9 is classified as water quality limited under the Federal Clean Water Act with an Environmental Protection Agency Approved Total Maximum Daily Load (TMDL) developed for the parameters of dissolved oxygen, *E. coli*, methylmercury and temperature; and is listed on the Section 303(d) list of impaired water bodies for the parameters of dissolved oxygen, iron, dieldrin, and harmful algal blooms.

The above listed parameters impair the following beneficial uses in the Tualatin River: fish and aquatic life, fishing, livestock watering, private domestic water supply, public domestic water supply, and water contact recreation. Additional beneficial uses include: industrial water supply, irrigation, wildlife and hunting, boating, aesthetic quality, and hydropower.

Certification Decision: Based on the information provided by the Applicant, DEQ is reasonably assured that implementation of the project will be consistent with applicable provisions of Sections 301, 302, 303, 306 and 307 of the federal Clean Water Act, state water quality standards set forth in Oregon Administrative Rules Chapter 340 Division 41 and other appropriate requirements of state law, provided the following conditions are incorporated into the USACE permit and strictly adhered to by the Applicant.

GENERAL CONDITIONS

1) **Responsible parties:** This 401 WQC applies to the Applicant. The Applicant is responsible for the work of its contractors and subcontractors, as well as any other entity that performs work related to this 401 WQC.

   Rule: *OAR 340-048-0015*
   Justification: *DEQ must be aware of responsible parties to ensure compliance.*

2) **Work Authorized:** Work authorized by this Order is limited to the work described in the Joint Permit Application signed on July 13, 2023 and additional application materials (hereafter "the permit application materials"), unless otherwise authorized by DEQ. If the project is operated in a manner that's not consistent with the project description contained in the permit application materials, the Applicant is not in compliance with this Order and may be subject to enforcement.

   Rule: *OAR 340-048-0015*
   Justification: *To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.*

3) **Duration of Certificate:** This 401 WQC for impacts to waters, including dredge and fill activities, is valid for five years from the date of issuance of the USACE 404 permit. A new or modified 401 WQC must be requested before any modification of the USACE 404 permit.

4)

   Rule: *OAR 340-048-0015*
   Justification: *Certification is required for any license or permit that authorizes an activity that may result in a discharge.*

5) **Modification:** Any approved modifications to this certification, including a change of ownership, will incur a Tier 1 fee of $985 at a minimum. A higher fee may be assessed for complex modifications.

   Rule: *OAR 340-048-0050*
   Justification: *To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.*

6) **Notification:** The Applicant must notify DEQ of any change in ownership or control of this project within 30 days and obtain DEQ review and approval before undertaking any change to the project that might affect water quality.

Rule: *OAR 340-048-0050*
Justification: *To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.*

7) **401 WQC on Site:** A copy of this 401 WQC letter must be kept on the job site and readily available for reference by the Applicant and its contractors and subcontractors, as well as by DEQ, US Army Corps of Engineers, National Marine Fisheries Service, Oregon Department of Fish and Wildlife and other state and local government inspectors.

Rule: *OAR 340-012*
Justification: *All parties must be aware of and comply with the 401 WQC, including on-site contractors.*

8) **Project Changes:** DEQ may modify or revoke this certification, in accordance with Oregon Administrative Rules 340-048-0050, if the project changes or project activities are having an adverse impact on state water quality or beneficial uses, or if the Applicant violates any of the conditions of this certification.

Rule: *OAR 340-048-0050*
Justification: *To ensure the project will comply with water quality standards, DEQ must understand all work involved in the construction and operation of the project.*

9) **Access:** The Applicant and its contractors must allow DEQ access to the project site with or without prior notice, including staging areas, and mitigation sites to monitor compliance with these certification conditions, including:
   a. Access to any records, logs, and reports that must be kept under the conditions of this certification;
   b. To inspect best management practices, monitoring or equipment or methods; and
   c. To collect samples or monitor any discharge of pollutants.

Rule: *OAR 340-012*
Justification: *DEQ must inspect facilities for compliance with all state rules and laws.*

10) **Enforcement:** Failure of any person or entity to comply with this order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce its terms.

Rule: *OAR 340-012*
Justification: *If the project is not being constructed or operated as proposed, it may not be consistent with water quality requirements.*

CONSTRUCTION SPECIFIC CONDITIONS

11) **Erosion Control:** During construction, erosion control measures must be implemented to prevent soil from reaching waters of the state. The Applicant is required to develop and implement an effective erosion and sediment control plan. Refer to DEQ's Oregon Sediment and Erosion Control Manual, February, 2021 at:
https://www.oregon.gov/deq/wq/Documents/wqpBMPManual.pdf

A project that disturbs one acre or more may be required to obtain a National Pollutant Discharge Elimination System 1200-C construction stormwater general permit. Contact the DEQ Stormwater Program for more information at:
https://www.oregon.gov/deq/wq/wqpermits/Pages/Stormwater-Construction.aspx

In addition, the Applicant, unless otherwise authorized by DEQ in writing must:

a. Maintain an adequate supply of materials necessary to control erosion at the construction site.

b. Prohibit erosion of stockpiles. Deploy compost berms, impervious materials, or other effective methods during rain or when stockpiles are not moved or reshaped for more than 48 hours.

c. Inspect erosion control measures daily and maintain erosion control measures as often as necessary to ensure the continued effectiveness of measures. Erosion control measures must remain in place until all exposed soil is stabilized;

    i. If monitoring or inspection shows that the erosion and sediment controls are ineffective, the Applicant must act immediately to make repairs, install replacements, or install additional controls as necessary.

    ii. If sediment has reached a third of the exposed height of a sediment or erosion control, the Applicant must remove the sediment to its original contour.

d. Use removable pads or mats to prevent soil compaction at all construction access points through, and staging areas in, riparian or wetland areas to prevent soil compaction, unless otherwise authorized by DEQ.

e. Flag or fence off wetlands not specifically authorized to be impacted to protect from disturbance and/or erosion.

f. Place dredged or other excavated material on upland areas with stable slopes to prevent materials from eroding back into waterways or wetlands.

g. Place clean aggregate at all construction entrances, and utilize other best management practices, including, but not limited to truck or wheel washes, when earth-moving equipment is leaving the site and traveling on paved surfaces. Vehicles are prohibited from tracking sediment off site.

h. This certification does not authorize the placement of best management practices into waters of the state unless specifically outlined in the application and authorized by DEQ.

Rule: *OAR 340-041-0007(8), ORS 468B.050, CWA Section 402, OAR 340-045*
Justification: *DEQ must ensure that pollution does not enter waterways.*

12) **Deleterious waste materials:** The Applicant is prohibited from placing biologically harmful materials and construction debris where they could enter waters of the state, including wetlands (wetlands are waters of the state). This includes but is not limited to: petroleum products; chemicals; cement cured less than 24 hours; welding slag and grindings; concrete saw cutting by-products; sandblasted materials; chipped paint; tires; wire; steel posts; asphalt; and waste concrete.

The Applicant must:

a. Cure concrete, cement, or grout for at least 24 hours before any contact with flowing waters;

b. Use only clean fill, free of waste and polluted substances;

c. Employ all practicable controls to prevent discharges of spills of harmful materials to surface or groundwater;

d. Maintain at the project construction site, and deploy as necessary, an adequate supply of materials needed to contain deleterious materials during a weather event;

e. Remove all foreign materials, refuse, and waste from the project area; and

f. Employ general good housekeeping practices at all times.

Rule: *OAR 340-041-0007(8), ORS 468B.050, CWA Section 402*
Justification: *DEQ must ensure that pollution does not enter waterways.*

13) **Spill Prevention:** The Applicant must have a spill prevention and control plan. The Applicant must fuel, operate, maintain, store vehicles, and equipment, and construction materials, in areas that will not disturb native habitat directly or result in potential discharges. In general, reasonable precautions and controls must be used to prevent any discharges of petroleum products or other harmful or toxic materials from entering the water as a result of any in-water activities. In addition, the following specific requirements apply:

a. Vehicle and motorized equipment staging, cleaning, maintenance, refueling, and fuel storage must take place in a vehicle staging area 150 feet or more from any waters of the state. DEQ may approve in writing exceptions to this distance if all practical prevention measures are employed and this distance is not possible because of any of the following site conditions:

   i. Physical constraints that make this distance not feasible (e.g., steep slopes, rock outcroppings)
   ii. Natural resource features would be degraded as a result of this setback
   iii. Equal or greater spill containment and effect avoidance is provided even if staging area is less than 150 feet away from waters of the state.

b. If staging areas are within 150 feet of any waters of the state, as allowed under subsection (a)(iii) of this condition, full containment of potential contaminants must be provided to prevent soil and water contamination, as appropriate.

c. All vehicles operated within 150 feet of any waters of the state must be inspected daily for fluid leaks before leaving the vehicle staging area. Any leaks detected in the vehicle-staging area must be repaired before the vehicle resumes operation.

d. Before operations begin and as often as necessary during operation, equipment must be steam cleaned (or undergo an approved equivalent cleaning) until all visible oil, grease, mud, and other visible contaminants are removed if the equipment will be used below the bank of a waterbody.

e. All stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 feet of any waters of the state must be covered by an absorbent mat to prevent leaks, unless other suitable containment is provided to prevent potential spills from entering any waters of the state.

f. An adequate supply of materials (such as straw matting/bales, geotextiles, booms, diapers, and other absorbent materials) needed to contain spills must be maintained at the project construction site and deployed as necessary.

g. All equipment operated in state waters must use bio-degradable hydraulic fluid.

h. A maintenance log documenting equipment maintenance inspections and actions must be kept on-site and available upon request.

Rule: *ORS 466.645(1); OAR 340-142-0030(1)(b)(B), OAR 340-041*
Justification: *DEQ must ensure that pollution does not enter waterways and must be protective of beneficial uses, including fish.*

14) **Spill & Incident Reporting:**

a. In the event that petroleum products, chemicals, or any other harmful materials are discharged into state waters, or onto land with a potential to enter state waters, the Applicant must report the discharge to the Oregon Emergency Response System (800-452-0311) within 24 hours. The Applicant must immediately begin containment and complete cleanup as soon as possible.

b. If the project operations cause a water quality problem which results in distressed or dying fish, the operator must immediately: cease operations; take appropriate corrective measures to prevent further environmental damage; collect fish specimens and water samples; and notify DEQ, Oregon Department of Fish and Wildlife and other appropriate regulatory agencies.

Rule: *ORS 466.645(1); OAR 340-142-0030(1)(b)(B), OAR 340-041*
Justification: *DEQ must ensure that pollution does not enter waterways and must be protective of beneficial uses, including fish.*

15) **Vegetation Protection and Restoration:**

a. The Applicant must protect riparian, wetland, and shoreline vegetation in the authorized project area (as defined in the permit application materials) from disturbance through one or more of the following:

i. Minimization of project and impact footprint

ii. Designation of staging areas and access points in open, upland areas

iii. Fencing and other barriers demarcating construction areas

iv. Use of alternative equipment (e.g., spider hoe or crane)

b. If authorized work results in vegetative disturbance and the disturbance has not been accounted for in planned mitigation actions, the Applicant must successfully reestablish vegetation to a degree of function equivalent or better than before the disturbance. The standard for success is 80 percent cover for native plant species. The vegetation must be reestablished by the completion of authorized work and include:

i. Restoring damaged streambanks to a natural slope, pattern, and profile suitable for establishment of permanent woody vegetation, unless precluded by pre-project conditions (e.g., a natural rock wall)

ii. Replanting or reseeding each area requiring revegetation before the end of the first planting season following construction

iii. Planting disturbed areas with native plants and trees in all cases except where the use of non-native plant materials may be essential for erosion control

iv. The use of invasive species to re-establish vegetation is prohibited

v. Herbicides, pesticides and fertilizers must be applied per manufacturer's instructions, and only if necessary for vegetation establishment. If chemical treatment is necessary, the Applicant is responsible for ensuring that pesticide application laws, including with the National Pollutant Discharge Eliminations System 2300-A general permit are met. Please review the information on the following website for more information: https://www.oregon.gov/deq/wq/wqpermits/Pages/Pesticide.aspx

Additionally:

1. Unless otherwise approved in writing by DEQ, applying surface fertilizer within stormwater treatment facilities or within 50 feet of any stream channel is prohibited.

2. Other than spot application to cut stems, no herbicides are allowed within stormwater treatment facilities or within 150 feet of waters of the state. Mechanical, hand, or other methods may be used to control weeds and unwanted vegetation within stormwater treatment facilities or within 150 feet of waters of the state; and

3. No pesticides may be used within stormwater treatment facilities or within 150 feet of waters of the state.

vi. Install wildlife-friendly fencing as necessary to prevent access to revegetated sites by livestock or unauthorized persons

vii. Minimize soil compaction, especially in areas that are designated for replanting. If soils are compacted, decompact staging areas and work construction areas prior to replanting. Leave topsoil when possible. Chip materials from clear and grub operation and spread on soil surface, unless cleared areas contained invasive species.

Rule: *OAR 340-041, OAR 340-012, OAR 340-041-0033*
Justification: *Riparian, wetland, and shoreline vegetation help ensure excess sediment does not enter a waterway, and helps offset potential temperature impacts. DEQ must ensure that pollution does not enter waterways.*

16) **Buffers:** The Applicant shall avoid and protect from harm, all wetlands and provide a 50 foot buffer to waters of the state, unless proposed, necessary, and approved as part of the project. If a local jurisdiction has a more stringent buffer requirement, that requirement will override this certification requirement.

Rule: *OAR 340-041, OAR 340-012*

Justification: *Riparian, wetland, and shoreline buffers help ensure excess sediment does not enter a waterway, and helps offset potential temperature impacts. DEQ must ensure that pollution does not enter waterways.*

17) **Previously Contaminated Soil and Groundwater:** If any contaminated soil or groundwater is encountered, it must be handled and disposed of in accordance with the soil and groundwater management plan for the site, as well as local, state and federal regulations. The Applicant must notify the Environmental Cleanup Section of DEQ at 800-452-4011 Ex.6258.

Rule: *OAR 340-041, OAR 340-012, OAR 340-122, OAR 340-040*
Justification: *DEQ must ensure that pollution does not enter waterways. As sediments are disturbed, pollutants could become redistributed.*

18) **Notification to DEQ:** The Applicant must provide pre-construction notification to DEQ one week before construction starts. Contact information can be found at the end of the certification.

Rule: *OAR 340-012*
Justification: *DEQ must inspect facilities for compliance with all state rules and laws.*

SPECIFIC CONDITIONS FOR IN-WATER WORK

19) **Fish Protection/ Oregon Department of Fish and Wildlife Timing:** The Applicant must perform in-water work only within the Oregon Department of Fish and Wildlife preferred time window as specified in the *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources* (https://www.dfw.state.or.us/lands/inwater/2023%20Oregon%20In-Water%20Work%20Guidelines.pdf) or as authorized otherwise under a Department of State Lands removal/fill permit. Exceptions to the timing window must be recommended by Oregon Department of Fish and Wildlife and/or the National Marine Fisheries Services as appropriate.

Rule: *OAR 340-041-0011*
Justification: *DEQ must be protective of all water quality standards, including beneficial uses such as fish and aquatic life.*

20) **Aquatic Life Movements:** Any activity that may disrupt the movement of aquatic life living in the water body, including those species that normally migrate through the area, is prohibited. The Applicant must provide unobstructed fish passage at all times during any authorized activity. Exceptions must be reviewed and recommended by Oregon Department of Fish Wildlife and/or the National Marine Fisheries Service as appropriate.

Rule: OAR 340-041-0016; OAR 340-041-0028
Justification: DEQ must be protective of all water quality standards, including beneficial uses such as fish.

21) **Cessation of Work**: The Applicant must cease project operations under high-flow conditions that will result in inundation of the project area. Only efforts to avoid or minimize turbidity or other resource damage as a result of inundation of the exposed project area are allowed during high-flow conditions.
Rule: *OAR 340-041, OAR 340-012*
Justification: *DEQ must ensure that pollution does not enter waterways.*

22) **Turbidity:** The Applicant must implement best management practices (BMPs) to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10 percent above natural stream turbidity is prohibited except as specifically noted below:

i. **Monitoring**: Turbidity monitoring must be conducted and recorded as described below. Monitoring must occur at two hour intervals each day during daylight hours when in-water work is being conducted, including while dewatering or work area isolation measures are in place. A properly calibrated turbidimeter is required.

ii. **Representative Background Point**: The Applicant must take and record a turbidity measurement every two hours during in-water work at an undisturbed area 100 feet up-current from the in-water disturbance, in order to establish background turbidity levels. The background turbidity, location, date, tidal stage (if applicable) and time must be recorded immediately prior to monitoring down-current at the compliance point described below.

iii. **Compliance Point**: The Applicant must monitor every two hours, 100 feet downcurrent from the disturbance, at approximately mid-depth of the waterbody and within any visible plume. The turbidity, location, date, tidal stage (if applicable) and time must be recorded for each measurement.

a. Compliance: The Applicant must compare turbidity monitoring results from the compliance points to the representative background levels taken during each two hour monitoring interval. Pursuant to Oregon Administrative Rules 340-041-0036, short-term exceedances are allowed as followed:

MONITORING WITH A TURBIDIMETER *EVERY 2 HOURS*	
TURBIDITY LEVEL	***Restrictions to Duration of Activity***
0 to 4 NTU above background	No Restrictions
5 to 29 NTU above background	Work may continue maximum of 4 Hours. If turbidity remains 5-29 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
30 to 49 NTU above background	Work may continue maximum of 2 Hours. If turbidity remains 30-49 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
50 NTU or more above background	Stop work immediately and inform DEQ

If an exceedance over the background level occurs, the Applicant must modify the activity and continue to monitor every two hours. If an exceedance over the background level continues after the second monitoring interval, the activity must stop. If, however, turbidity levels return to background at or after second monitoring level due to implementation of best management practices or natural attenuation, work may continue with appropriate monitoring as above.

If an exceedance occurs at: 50 NTU or more over background; 30 NTU over background for two hours; or 5-29 NTU over background for eight hours, the activity must stop immediately for the remainder of that 24-hour period.

b. **Reporting:**
   i. Record all turbidity monitoring required by subsections (a) and (b) above in daily logs which must include: calibration documentation; background NTUs; compliance point NTUs; comparison of the points in NTUs; and location; date; time; and tidal stage (if applicable) for each reading.
   ii. Keep records on file for the duration of the permit cycle.
   iii. Prepare a narrative must be prepared discussing all exceedances with subsequent monitoring, actions taken, and the effectiveness of the actions. The Applicant must make available copies of daily logs for turbidity monitoring to regulatory agencies including DEQ, USACE, NMFS, USFWS, and ODFW upon request. An example turbidity log is attached to this certification.

If turbidity monitoring cannot be conducted due to dry conditions, the Applicant must provide photo documentation with a date and time stamp.

c. **Best Management Practices to Minimize In-stream Turbidity:** The Applicant must implement the following best management practices, unless accepted in writing by DEQ:

   i. Sequence/Phasing of work – The Applicant must schedule work activities to minimize in-water disturbance and duration of in-water disturbances.

   ii. Bucket control - All in-stream digging passes by excavation machinery and placement of fill in-stream using a bucket must be completed to minimize turbidity. All practical techniques such as employing an experienced equipment operator, not dumping partial or full buckets of material back into the wetted stream, adjusting the volume, speed, or both of the load, or using a closed-lipped environmental bucket must be implemented.

   iii. The Applicant must limit the number and location of stream-crossing events. Establish temporary crossing sites as necessary at the least sensitive areas and amend these crossing sites with clean gravel or other temporary methods as appropriate, to discharge sediments to the waterbody.

   iv. Machinery may not be driven into the flowing channel, unless authorized in writing by DEQ.

   v. Excavated material must be placed so that it is isolated from the water's edge or wetlands, and not placed where it could re-enter waters of the state uncontrolled.

   vi. Containment measures such as silt curtains, geotextile fabric, and silt fences must be in place and properly maintained in order to minimize in-stream sediment suspension and resulting turbidity.

Rule: *OAR 340-041-0036, OAR 340-041*
Justification: *DEQ must ensure that pollution does not enter waterways.*

SPECIFIC CONDITIONS FOR POST-CONSTRUCTION STORMWATER MANAGEMENT

Post Construction Stormwater Management: The Applicant must implement and comply with the terms of the approved post-construction stormwater management plan, which describes best management practices to prevent or treat pollution in stormwater anticipated to be generated by the project, in order to comply with state water quality standards.

The City of Portland Clean Water Services (CWS) holds a DEQ MS4 Phase I permit covering municipal stormwater dischages. Review of the Stormwater Management Plan is delegated to CWS. DEQ reserves the right to ensure compliance with the proposed plan.

Within 30 days of project completion, the Applicant must submit a copy of the "as-builts" or red-lined construction drawings showing all stormwater management facilities.

Rule: *ORS 468B.050, OAR 340-045, OAR 340-041*
Justification: *DEQ must ensure that pollution does not enter waterways.*
.

23) **Corrective Action May Be Required:** DEQ retains the authority to require corrective action in the event the stormwater management facilities are not built or performing as described in the plan.

Rule: *OAR 340-041, OAR 340-012*
Justification: *DEQ must ensure that pollution does not enter waterways.*

SPECIFIC CONDITIONS FOR PILING REMOVAL

24) **Piling Removal:** Applicant must use vibratory extraction for pile removal, unless another method is authorized in writing by DEQ. Applicant must implement the following measures to reduce the incidence of sediment disturbance and contaminant mobilization:

a. Use an adequately trained equipment and crane operator:
b. Install a floating surface boom for capture and containment of debris and floatable pollutants;
c. Vibrate each pile to break the skin friction bond between pile and sediment, to avoid pulling out a large block of soil and possibly breaking off the pile in the process;
    i. Remove each pile slowly;
    ii. Do not allow extraction equipment (e.g., bucket, steel cable, vibratory hammer) to enter the water; and,
    iii. Once loose, immediately transfer the piling along the most direct route to a contained, dry storage site.
d. If vibratory extraction or pulling is not feasible due to slope stability or pile breakage, pile cutoff may be used. When pile cutting is performed. Applicant or its contractors must:
    i. Time work to occur at lowest water possible;

ii. Use a pneumatic underwater chainsaw; and,
iii. In areas that are tidally influenced or prone to scour, cut the pile at least three feet below the sediment surface.

e. Pile Handling and Disposal
   i. No treated wood debris may fall into waters of the state. If any treated wood debris enters waters of the state, it must be removed immediately and disposed of properly;
   ii. Applicant or its contractors must immediately place removed pilings into a contained, dry storage site;
   iii. Treated wood pile(s) may not be left in the water or stacked on the streambank; and,
   iv. Applicant or its contractors must dispose of all treated wood debris removed during a project at an upland facility in accordance with all applicable state and federal requirements.

Rule: *OAR 340-041-0036, OAR 340-041*
Justification: *DEQ must ensure that pollution does not enter waterways.*

If the Applicant is not satisfied with the conditions contained in this certification, a contested case hearing may be requested in accordance with Oregon Administrative Rule 340-048-0045. Such requests must be made in writing to the DEQ Office of Compliance and Enforcement at 700 NE Multnomah St, Suite 600, Portland Oregon 97232 within 20 days of the mailing of this certification.

The DEQ hereby certifies this project in accordance with the Clean Water Act and state rules, with the above conditions. If you have any questions, please contact Shelley Tattam at shelley.tattam@deq.oregon.gov, by phone at (971) 276-9201 or at the address on this letterhead.

Sincerely,

Theresa Burcsu
Theresa Burcsu (Mar 22, 2024 08:55 PDT)

Theresa Burcsu,
Water Quality Manager
Northwest Region

ec: James "Bo" Davidson, USACE
Michael DeBlasi, DSL
Kate Wells, NOAA
Tina Farrelly, Pacific Habitat Services, Inc.

State of Oregon
DEQ Department of Environmental Quality

401 Water Quality Certification Turbidity Monitoring Report

Project Name:	USACE Project #	DSL Project #

Name of Inspector(s):	Turbidimeter Model:	Calibration Standard Type (Circle One)	Calibration Standard Expiration Date:
		Formazin Solution or Gelex	

Sampling Date:	Calibration Values:	*Upstream (Background) Point Location:	*Downstream (Compliance) Point Location:
	_____NTU (Standard) = _____NTU (Reading) _____NTU (Standard) = _____NTU (Reading) _____NTU (Standard) = _____NTU (Reading)	Latitude: Longitude:	Latitude: Longitude:

In-Water Work Start Time:	In-Water Work End Time:	Description of In-Water Work:

Upstream Sample		Downstream Sample		Change in Turbidity (NTU)	Observation of waterbody		NOTES (Describe any modifications made to BMPs)
Time	Turbidity (NTU)	Time	Turbidity (NTU)		Tidal Stage	Note any plume, sheen, floatables, color	

** Include a figure with the turbidity sampling forms showing the sampling locations.*

Turbidity: The Applicant must implement appropriate Best Management Practices (BMPs) to minimize turbidity during in-water work. Any activity that causes turbidity to exceed 10% above natural stream turbidity is prohibited except as specifically provided below:

Monitoring: Turbidity monitoring must be conducted and recorded as described below. Monitoring must occur at two hour intervals each day during daylight hours when in-water work is being conducted, including while dewatering or work area isolation measures are in place. A properly calibrated turbidimeter is required unless another monitoring method is proposed and authorized by DEQ.

MONITORING WITH A TURBIDIMETER *EVERY 2 HOURS*	
TURBIDITY LEVEL	***Restrictions to Duration of Activity***
0 to 4 NTU above background	No Restrictions
5 to 29 NTU above background	Work may continue maximum of 4 hours. If turbidity remains 5-29 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
30 to 49 NTU above background	Work may continue maximum of 2 hours. If turbidity remains 30-49 NTU above background, stop work and modify BMPs. Work may resume when NTU is 0-4 above background.
50 NTU or more above background	Stop work immediately and inform DEQ

Representative Background Point: The Applicant must take and record a turbidity measurement every two hours during in-water work at an undisturbed area. A background location shall be established at a representative location approximately 100 feet upcurrent of the in water activity unless otherwise authorized by DEQ. The background turbidity, location, date, tidal stage (if applicable) and time must be recorded immediately prior to monitoring downcurrent at the compliance point described below.

Compliance Point: The must monitor every two hours. A compliance location shall be established at a representative location approximately 100 feet downcurrent from the disturbance at approximately mid-depth of the waterbody and within any visible plume. The turbidity, location, date, tidal stage (if applicable) and time must be recorded for each measurement.

Compliance: The Applicant must compare turbidity monitoring results from the compliance points to the representative background levels taken during each two – hour monitoring interval. Pursuant to OAR 340-041-0036, short term exceedances of the turbidity water quality standard are allowed as shown in the monitoring table shown here.

Reporting: The Applicant must record all turbidity monitoring required by subsections (a) and (b) above in daily logs, kept on file for the duration of the permit cycle. The daily logs must include calibration documentation; background NTUs; compliance point NTUs; comparison of the points in NTUs; location; date; time; and tidal stage (if applicable) for each reading. Additionally, a narrative must be prepared discussing all exceedances with subsequent monitoring, actions taken, and the effectiveness of the actions. Applicant must make available copies of daily logs for turbidity monitoring to DEQ, USACE, NMFS, USFWS, and ODFW upon request.

BMPs to Minimize In-stream Turbidity: The Applicant must implement the following BMPs, unless otherwise accepted by DEQ:

i. Sequence/Phasing of Work – The Applicant must schedule work activities so as to minimize in-water disturbance and duration of in-water disturbances;
ii. Bucket control - All in-stream digging passes by excavation machinery and placement of fill in-stream using a bucket must be completed so as to minimize turbidity. All practicable techniques such as employing an experienced equipment operator, not dumping partial or full buckets of material back into the wetted stream, adjusting the volume, speed, or both of the load, or using a closed-lipped environmental bucket must be implemented;
iii. The Applicant must limit the number and location of stream-crossing events. Establish temporary crossing sites as necessary in the least sensitive areas and amend these crossing sites with clean gravel or other temporary methods as appropriate;
iv. Machinery may not be driven into the flowing channel, unless authorized by DEQ; and
v. Excavated material must be placed so that it is isolated from the water edge or wetlands, and not placed where it could re-enter waters of the state uncontrolled.

US Army Corps of Engineers
Portland District

Compliance Certification

1. **Permit Number:** NWP-1994-897-1
2. **Permittee Name:** City of Tigard
3. **County Location:** Washington

Upon completing the activity authorized by the permit, please complete the sections below, sign and date this certification, and return it to the U.S. Army Corps of Engineers, Portland District, Regulatory Branch. The certification can be submitted by email at cenwp.notify@usace.army.mil or by regular mail at the following address:

U.S. Army Corps of Engineers
CENWP-OD-GL
P.O. Box 2946
Portland, OR 97208-2946

4. **Corps-required Compensatory Mitigation (see permit special conditions):**
   a. Mitigation Bank / In-lieu Fee Credit Transaction Documents:
      ☐ Not Applicable ☐ Submitted ☐ Enclosed

   b. Permittee-responsible mitigation (e.g., construction and plantings) has been constructed (not including future monitoring). As-built report:
      ☐ Not Applicable ☐ Submitted ☐ Enclosed

5. **Endangered Species Act – Standard Local Operating Procedures (SLOPES)** (see permit special conditions):
   a. SLOPES Action Completion Report:
      ☐ Not Applicable ☐ Submitted ☐ Enclosed

   b. SLOPES Fish Salvage Report:
      ☐ Not Applicable ☐ Submitted ☐ Enclosed

   c. SLOPES Site Restoration / Compensatory Mitigation Report:
      ☐ Not Applicable ☐ Submitted ☐ Enclosed

I hereby certify the work authorized by the above-referenced permit has been completed in accordance with all of the permit terms and conditions.

Signature of Permittee **Date**

Endangered Species Act - Section 7 Formal Programmatic Opinion, Letter Of Concurrence

and

Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation

Revisions to Standard Local Operating Procedures for Endangered Species to Administer Actions Authorized or Carried Out by the U.S. Army Corps of Engineers in Oregon (SLOPES IV In-water Over-water Structures)

NMFS Consultation Number: 2011/05585

Federal Action Agency: Army Corps of Engineers
Portland District, Operations and Regulatory Branches

Date Issued: April 5, 2012

Affected Species and Determinations

ESA-Listed Species	ESA Status	Is the action likely to adversely affect this species or it critical habitat?	Is this Action likely to jeopardize this species?	Is this Action likely to destroy or adversely modify critical habitat for this species?
Lower Columbia River Chinook salmon	T	Yes	No	No
Upper Willamette River Chinook salmon	T	Yes	No	No
Upper Columbia River spring-run Chinook salmon	E	Yes	No	No
Snake River spring/summer run Chinook salmon	T	Yes	No	No
Snake River fall-run Chinook salmon	T	Yes	No	No
Columbia River chum salmon	T	Yes	No	No
Lower Columbia River coho salmon	T	Yes	No	N/A
Oregon Coast coho salmon	T	Yes	No	No
Southern Oregon/Northern California coasts coho salmon	T	Yes	No	No
Snake River sockeye salmon	E	Yes	No	No
Lower Columbia River steelhead	T	Yes	No	No
Upper Willamette River steelhead	T	Yes	No	No
Middle Columbia River steelhead	T	Yes	No	No
Upper Columbia River steelhead	T	Yes	No	No
Snake River Basin steelhead	T	Yes	No	No
Southern green sturgeon	T	Yes	No	No
Eulachon	T	Yes	No	No
Steller sea lion	T	No	No	N/A

Fishery Management Plan that Describes EFH in the Action Area	Would the action adversely Affect EFH?	Are EFH conservation Recommendation provided?
Coastal Pelagic Species	Yes	Yes
Pacific Coast Groundfish	Yes	Yes
Pacific Coast Salmon	Yes	Yes

1.3.1.1 Administrative

6. **Salvage Notice.** If a sick, injured or dead specimen of a threatened or endangered species is found during construction and within the action area, the finder must notify NMFS' Office of Law Enforcement at 503-231-6240 or 206-526-6133. The finder must take care in handling dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder also has the responsibility for carrying out instructions provided by the Office of Law Enforcement to ensure that evidence intrinsic to the specimen is not disturbed unnecessarily.

1.3.1.2 General Construction

11. **Pollution and erosion control.** Any action that will require earthwork and may increase soil erosion and cause runoff with visible sediment into surface water, or that will require the use of materials that are hazardous or toxic to aquatic life (such as motor fuel, oil, or drilling fluid), must have a pollution and erosion control plan that is developed and carried out by the applicant, and commensurate with the scale of the action.
    a. The plan must include practices to minimize erosion and sedimentation associated with all aspects of the project (*e.g.*, staging areas, stockpiles, grading); to prevent construction debris from dropping or otherwise entering any stream or waterbody; and to prevent and control hazardous material spills.
    b. During construction, erosion controls and streams must be monitored and maintained daily during the rainy season and weekly during the dry season as necessary to ensure controls are properly functioning.
    c. If monitoring shows that the erosion controls are ineffective at preventing visible sediment discharge, the project must stop to evaluate erosion control measures. Repairs, replacements or the installation of additional erosion control measures must be completed before the project resumes.
    d. Proper maintenance includes removal of sediment and debris from erosion controls like silt fences or hay bales once it has reached on-third of the exposed height of the control.

12. **Stormwater management.** Any action that will expand, recondition, reconstruct, or replace pavement, replace a stream crossing, otherwise increase the contributing impervious surface within the project area, or create a new stormwater conveyance or discharge facility, must have a stormwater management plan that is developed and carried out by the applicant, commensurate with the scale of the action, and approved by NMFS. The stormwater plan submitted for approval must include all of the information called for by the "Checklist for Submission of a Stormwater Plan" (ODEQ 2008, or most recent version), or an explanation of why any missing information is not applicable to a specific project.

13. **Site restoration.** Any action that results in significant disturbance of riparian vegetation, soils, streambanks, or stream channel must have a site restoration plan that is developed and carried out by the permittee (or Corps), that is commensurate with the scale of the action. The goal of the plan is to ensure that riparian vegetation, soils, streambanks, and stream channel are cleaned up and restored after the action is complete. No single criterion is sufficient to measure restoration success, but the intent is that the following features should be present in the upland parts of the project area, within reasonable limits of natural and management variation:
    a. Human and livestock disturbance, if any, are confined to small areas necessary for access or other special management situations.

b. Areas with signs of significant past erosion are completely stabilized and healed, bare soil spaces are small and well-dispersed.
c. Soil movement, such as active rills and soil deposition around plants or in small basins, is absent or slight and local.
d. Native woody and herbaceous vegetation, and germination microsites, are present and well distributed across the site.
e. Plants are native species and have normal, vigorous growth form, and a high probability of remaining vigorous, healthy and dominant over undesired competing vegetation.
f. Vegetation structure is resulting in rooting throughout the available soil profile.
g. Plant litter is well distributed and effective in protecting the soil with little or no litter accumulated against vegetation as a result of active sheet erosion ("litter dams").
h. A continuous corridor of shrubs and trees appropriate to the site are present to provide shade and other habitat functions for the entire streambank.
i. Streambanks are stable, well vegetated, and protected at margins by roots that extend below baseflow elevation, or by coarse-grained alluvial debris.

14. **Compensatory mitigation.** Any action that will permanently displace riparian or aquatic habitats or otherwise prevent development of properly functioning condition of natural habitat processes will require compensatory mitigation to fully offset those impacts.
    a. Examples of actions requiring compensatory mitigation include construction of a new or enlarged boat ramp or float, the addition of scour protection to a boat ramp, or construction of new impervious surfaces without adequate stormwater treatment.
    b. For displaced riparian and aquatic habitat, the primary habitat functions of concern are related to the physical and biological features essential to the long-term conservation of listed species. Those are water quality, water quantity, channel substrate, floodplain connectivity, forage, natural cover, space, and free passage. Examples of acceptable mitigation for riparian losses includes planting trees or other woody vegetation in the riparian area, removal of existing overwater structures or restoration of shallow-water, off-channel, or beach habitat by adding features such as submerged or overhanging large wood, aquatic vegetation, large rocks and boulders, side channels and undercut banks.
    c. For new impervious surfaces with inadequate stormwater treatment, the primary habitat functions of concern are water quality and water quantity. Examples of acceptable mitigation for inadequate stormwater management includes providing adequate stormwater treatment at an alternate site where it did not exist before or retrofitting an existing but substandard stormwater facility to provide capacity necessary to infiltrate and retain the proper volume of stormwater.
    d. As part of NMFS's review under clause 3 above, NMFS will determine if the proposed compensatory mitigation fully offsets permanent displacement of riparian or aquatic habitats and/or impacts that prevent development of properly functioning processes.

15. **Preconstruction activity.** Before alteration of the action area, flag the boundaries of clearing limits associated with site access and construction to minimize soil and vegetation disturbance, and ensure that all temporary erosion controls are in place and functional.

16. **Site preparation.** During site preparation, conserve native materials for restoration, including large wood, vegetation, topsoil and channel materials (gravel, cobble and boulders) displaced by construction. Whenever practical, leave native materials where they are found and in areas to be cleared, clip vegetation at ground level to retain root mass and encourage reestablishment of native vegetation. Building and related structures may not be constructed inside the riparian management area.

17. **Heavy equipment.** Heavy equipment will be selected and operated as necessary to minimize adverse effects on the environment (*e.g.*, minimally-sized, low pressure tires, minimal hard turn paths for tracked vehicles, temporary mats or plates within wet areas or sensitive soils); and all vehicles and other heavy equipment will be used as follows:
    a. Stored, fueled and maintained in a vehicle staging area placed 150 feet or more from any waterbody, or in an isolated hard zone such as a paved parking lot.
    b. Inspected daily for fluid leaks before leaving the vehicle staging area for operation within 50 feet of any waterbody.Steam-cleaned before operation below ordinary high water, and as often as necessary during operation to remain free of all external oil, grease, mud, seeds, organisms and other visible contaminants.
    c. Generators, cranes and any other stationary equipment operated within 150 feet of any waterbody will be maintained and protected as necessary to prevent leaks and spills from entering the water.

18. **In-water work period.** All work within the active channel will be completed in accordance with the Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife resources (ODFW 2000, or the most recent version), except as follows:
    a. All in-water work in the Willamette River mainstem between Willamette Falls and the confluence with the Columbia River must be completed between July 1 and October 31.
    b. All in-water work in the Columbia River mainstem below Bonneville Dam, except pile driving, must be completed between November 1 and December 31.
    c. Pile driving in the Columbia River mainstem below Bonneville Dam must be completed between October 1 and November 31.
    d. Hydraulic and topographic measurements and encased geotechnical drilling may be completed at any time, if a fish biologist determines that no adult fish are congregating for spawning and no redds are occupied by eggs or pre-emergent alevins within 300 feet of the work site.

19. **Actions that require work area isolation.** Any action that involves excavation (other than access management), backfilling, embankment construction, or similar work below ordinary high water where adult or juvenile fish are reasonably certain to be present, or 300 feet or less upstream from spawning habitats, must be effectively isolated from the active stream.

20. **Fish capture and removal.** Whenever work isolation is required and ESA-listed fish are likely to be present, the applicant must attempt to capture and remove the fish as follows:
    a. A fishery biologist experienced with work area isolation and competent to ensure the safe capture, handling and release of all fish will supervise this part of the action, and complete the fish salvage form from Appendix C that will be submitted with the action completion report.
    b. Any fish trapped within the isolated work area must be captured and released using a trap, seine, electrofishing, or other methods as prudent to minimize the risk of injury, then released at a safe release site.
    c. If electrofishing is used to capture fish, that work must consistent with NMFS' electrofishing guidelines (NMFS 2000).

21. **Piling installation.** Pilings may be concrete, steel round pile 24 inches in diameter or smaller, steel H-pile designated as HP24 or smaller, or wood that has not been treated with preservatives or pesticides. Any proposal to use wood pilings treated with preservatives or pesticides is not covered by this consultation and will require individual consultation.
    a. When practical, use a vibratory hammer for piling installation. For pile driving in the Columbia River in the month of October, only a vibratory hammer may be used.

b. Jetting may be used for piling installation in areas with coarse, uncontaminated sediments.

22. **Pile driving with an impact hammer.** When using an impact hammer to drive or proof steel piles, one of the following sound attenuation methods must be used:
    a. Completely isolate the pile from flowing water by dewatering the area around the pile.
    b. If water velocity is 1.6 feet per second or less, surround the piling being driven by a confined or unconfined bubble curtain (see NMFS and USFWS 2006, Wursig *et al*. 2000, and Longmuir and Lively 2001) that will distribute small air bubbles around 100% of the piling perimeter for the full depth of the water column.
    c. If water velocity is greater than 1.6 feet per second, surround the piling being driven by a confined bubble curtain (*e.g.*, a bubble ring surrounded by a fabric or non-metallic sleeve) that will distribute air bubbles around 100% of the piling perimeter for the full depth of the water column.

23. **Pile driving where Steller sea lions may be present.** If the action area is between Bonneville Dam and the mouth of the Columbia River, or outside of the Columbia River but within 10-miles of a Steller sea lion haul-out[1], the following conditions apply:
    a. A biologist qualified in marine mammal identification will be on site during all pile driving and will notify the operator to cease operations if a Steller sea lion enters the 1,200 foot radius of the pile.
    b. Pile driving may not begin if Steller sea lions are within 1,200 feet of the pile being driven.
    c. Pile driving must cease if Steller sea lions approach to within 1,200 feet of the pile being driven.

24. **Pile removal.** Use the following steps to minimize creosote release, sediment disturbance and sediment resuspension:
    a. Install a floating surface boom to capture floating surface debris.
    b. Keep all equipment (*e.g.*, bucket, steel cable, vibratory hammer) out of the water, grip piles above the waterline, and complete all work during low water and low current conditions.
    c. Dislodge the piling with a vibratory hammer, when possible; never intentionally break a pile by twisting or bending.
    d. Slowly lift the pile from the sediment and through the water column.
    e. Place the pile in a containment basin on a barge deck, pier, or shoreline without attempting to clean or remove any adhering sediment – a containment basin for the removed piles and any adhering sediment may be constructed of durable plastic sheeting with sidewalls supported by hay bales or another support structure to contain all sediment and return flow which may otherwise be directed back to the waterway.
    f. Fill the holes left by each piling with clean, native sediments immediately upon removal.
    g. Dispose of all removed piles, floating surface debris, any sediment spilled on work surfaces, and all containment supplies at a permitted upland disposal site.

25. **Broken or intractable piling.** When a pile breaks or is intractable during removal, continue removal as follows:
    a. Make every attempt short of excavation to remove each piling, if a pile in uncontaminated sediment is intractable, breaks above the surface, or breaks below the surface, cut the pile or stump off at least 3 feet below the surface of the sediment.
    b. If dredging is likely where broken piles are buried, use a global positioning system (GPS) device to note the location of all broken piles for future use in site debris characterization.

[1] Haul outs are located at 3 Arches Rock, Orford Reed, Rogue Reef, Sea Lion Caves, Cape Arago State Park, Oregon Islands National Wildlife Refuge and South Jetty Columbia River.

26. **Pesticide-treated wood installation.** Use of lumber, pilings, or other wood products treated or preserved with pesticidal compounds may not be used below ordinary high water, or as part of an in-water or overwater structure[2].

27. **Pesticide-treated wood removal.** When it is necessary to remove pesticide-treated wood, the following conditions apply.

    a. Ensure that, to the extent possible, no wood debris falls into the water. If wood debris does fall into the water, remove it immediately.
    b. After removal, place wood debris in an appropriate dry storage site until it can be removed from the project area.
    c. Do not leave wood construction debris in the water or stacked on the streambank at or below the ordinary high water.
    d. Evaluate wood construction debris removed during a project, including pesticide-treated wood pilings, to ensure proper disposal of debris.

1.3.1.3 Types of Actions In-water or Over-water Structures

28. **Boat ramps.** All boat ramps must consist of pre-cast concrete slabs below ordinary high water, and may be cast-in-place above ordinary high water if completed in the dry. Rock may be used to prevent scouring, down-cutting, or failure at the boat ramp, provided that the rock is no larger than necessary and does not extend further than 4-feet from the edge of the ramp in any direction.

29. **Educational signs.** To educate the public about pollution from boating activities and its prevention, the Corps shall install (Corps project) or require the following information or its equivalent to be posted on a permanent sign that will be maintained at each permitted facility that is used by the public (*e.g.,* a public boat ramp or marina):
    a. A description of the ESA-listed species which are or may be present in the project area.
    b. Notice that adults and juveniles of these species are protected by the ESA and other laws so that they can successfully migrate, spawn, rear, and complete other behaviors necessary for their recovery.
    c. Therefore, all users of the facility are encouraged or required to: (i) Follow procedures and rules governing use of sewage pump-out facilities; (ii) minimize the fuel and oil released into surface waters during fueling, and from bilges and gas tanks; (iii) avoid cleaning boat hulls in the water to prevent the release of cleaner, paint and solvent; (iv) practice sound fish cleaning and waste management, including proper disposal of fish waste; and (v) dispose of all solid and liquid waste produced while boating in a proper facility away from surface waters.

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[2] For alternatives sources of structural lumber and pilings designed for industrial and marine applications, but not based on pesticide-treated wood, including silica-based wood preservation, improved recycled plastic technology, and environmentally safe wood sealer and stains, see, *e.g.*, Resco Plastics (Coos Bay, Oregon; ph. 541.269.5485) and American Plastic Lumber (Shingle Springs, California; ph. 530.677.7700) for lumber from recycled plastic; Plastic Pilings, Inc. (Rialto, California; ph. 909.874.4080) for structural and non-structural lumber from recycled plastic; Timbersil (Placentia, California; ph. 714.223.1804) for outdoor lumber treated with silica; Kebony (ph. 888.914.9995) for outdoor lumber impregnated with a resin from furfuryl alcohol, a byproduct of sugar production; and Timber Pro Coatings (Portland, Oregon; ph. 503.232.1705) for a silica-based internal wood stabilizer, and a low-VOC wood sealer/stain. The use of trade, firm, or corporation names in this Opinion is for the information and convenience of the action agencies, and does not constitute an official endorsement or approval by the U.S. Department of Commerce or NMFS of any product or service to the exclusion of others that may be suitable.

30. Flotation material. All synthetic flotation material must be permanently encapsulated to prevent breakup into small pieces and dispersal in water.

31. New or replacement floats. Any new or replacement float must be placed at least 50 feet from the shoreline (100-feet from the shoreline in the Columbia River) as measured at ordinary low water or mean lower low water and may not be placed in an estuarine area with submerged aquatic vegetation. Any float wider than 6-feet must also include (a) an open area of grating that is at least 50% of the total surface area,; or (b) be placed where current velocity is at least 0.7 feet per second year-round. Floats may not exceed 10' in width or 40' in length or a total of 400 square feet.

32. Piscivorous birds. All float pilings, mooring buoys, and navigational aids must be fitted with devices to prevent perching by piscivorous birds.

33. Relocation of existing structures in a marina. Any existing structure that is relocated in a marina must remain within the existing overall footprint, but no closer than 50 feet of the shoreline (100 feet in the Columbia River) as measured at ordinary low water or mean lower low water.

34. Repair or replacement of wall and roof components for a covered moorage or boat house. Any replacement for a roof, wall, or garage door of a covered moorage or boat house must be made of translucent materials or incorporate skylights to allow light penetration.

Dredging

35. Dredging to Maintain Vessel Access. When dredging to maintain access to previously authorized docks, wharfs, mooring structures, and boat ramps, the following conditions apply:

a. All dredged materials and subsequent leave surface must be suitable and approved for in-water disposal using newly acquired or historical data based on criteria in the Sediment Evaluation Framework ((USACE *et al.* 2009).
b. All dredged sediment and debris must be side cast or returned to the channel within the ordinary high-water line downstream from the dredging site where it will be recruited by the next annual high flow and continue to provide aquatic habitat functions.
c. The dredging must not alter the character, scope, size, or location of the project area or previously authorized dredge prism.

36. Dredging to Maintain Functionality. When discharging or excavating to maintain the functionality of a channel, culvert, intake, or outfall, the following conditions apply:

a. Either the discharge or excavation may not exceed 25 cubic yards, or include any water intake or point of diversion that does not have a fish screen that is installed, operated and maintained according to NMFS fish screen criteria and meet NMFS fish passage criteria.
b. All dredged materials and subsequent leave surface must be suitable and approved for in-water disposal using newly acquired or historical data based on criteria in the Sediment Evaluation Framework.
c. All dredged sediment and debris must be side cast or returned within the annual high flow channel downstream from the dredging site where it will continue to provide aquatic habitat functions.
d. The dredging must not alter the character, scope, size, or location of the project area.

SLOPES IV PROGRAMMATIC – IN-WATER OVER-WATER STRUCTURES ACTION COMPLETION FORM

Within 60 days of completing all work below ordinary high water (OHW) as part of an action completed under the SLOPES IV In-water Over-water Structures programmatic opinion, the permittee must submit a completed action completion form with the following information to the U.S. Army Corps of Engineers, Regulatory Branch at: cenwp.notify@usace.army.mil

Corps Permit #:

Corps Contact: _____

Action Title _____

_____

Start and End Dates for the completion of in-water work: ***Start***: _____ ***End***: _____

Any Dates work ceased due to high flows: _____ _____

_____ _____

_____ _____

_____ _____

Include With This Form:

1. Photos of habitat conditions before, during, and after action completion
2. Evidence of compliance with fish screen criteria for any pump used
3. A summary of the results of pollution and erosion control inspections, including any erosion control failure, contaminant release, and correction effort
4. Number, type, and diameter of any pilings removed or broken during removal
5. A description of any riparian area cleared within 150 feet of OHW
6. Linear feet of bank alteration
7. A description of site restoration
8. A completed Salvage Reporting Form from Appendix D for any action that requires fish salvage
9. As-Built drawings for any action involving riprap revetment, stormwater management facility, or bridge rehabilitation or replacement.

SLOPES IV PROGRAMMATIC – IN-WATER OVER-WATER STRUCTURES SALVAGE REPORTING FORM

If Applicable: Within 10 days of completing a capture and release as part of an action completed under the SLOPES IV In-water Over-water Structures programmatic opinion, submit a completed Salvage Reporting Form, or its equivalent, with the following information to the Corps at cenwp.notify@usace.army.mil.

Corps Permit #:

Corps Contact:

Action Title

Date of Fish Salvage Operation:

Supervisory Fish Biologist (name, address & telephone number):

Include With This Form:

1. A description of methods used to isolate the work area, remove fish, minimize adverse effects on fish, and evaluate their effectiveness.
2. A description of the stream conditions before and following placement and removal of barriers.
3. A description of the number of fish handled, condition at release, number injured, and number killed by species.

SLOPES IV PROGRAMMATIC –IN-WATER OVER-WATER STRUCTURES RESTORATION/ COMPENSATORY MITIGATION REPORTING FORM

By December 31 of any year in which the Corps approves that the site restoration or compensatory mitigation is complete, submit a completed Site Restoration/Compensatory Mitigation Reporting Form, or its equivalent, with the following information to the Corps at cenwp.notify@usace.army.mil.

Corps Permit #: _____

Corps Contact: _____

Action Title _____

Type of Activity: _____

_____

Include With This Form:

1. Photos of habitat conditions before, during, and after action completion
2. Start and end date for the work
3. A summary of the results of mitigation or restoration work completed

ATTACHMENT M – REPORTS
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Geotechnical Engineering Report by Shannon & Wilson

No-Rise Analysis by West Consultants

Natural Resource Assessment by Pacific Habitat Services





SUBMITTED TO:
City of Tigard
13125 SW Hall Boulevard
Tigard, OR 97223

BY:
Shannon & Wilson
3990 Collins Way, Ste 100
Lake Oswego, OR 97035

(503) 210-4750
www.shannonwilson.com

GEOTECHNICAL ENGINEERING REPORT

City of Tigard – Accessible Boat Launch at Cook Park

TIGARD, OREGON



SHANNON & WILSON

January 2024

Shannon & Wilson No: 112406

Submitted To: City of Tigard
13125 SW Hall Boulevard
Tigard, OR 97223
Attn: Jeff Peck

Subject: GEOTECHNICAL ENGINEERING REPORT, CITY OF TIGARD – ACCESSIBLE BOAT LAUNCH AT COOK PARK, TIGARD, OREGON

Shannon & Wilson, Inc. prepared this report and participated in this project as a consultant to the City of Tigard. Our scope of services was specified in Purchase Order Number P2400040, dated November 2, 2023. This report presents the results of our field exploration, laboratory testing, geotechnical design evaluations and recommendations, and construction considerations for the proposed project, and was prepared by the undersigned.

We appreciate the opportunity to be of service to you on this project. If you have questions concerning this report, or if we may be of further service, please contact us.

Sincerely,

SHANNON & WILSON, INC.



Kyle Romney, PE
Senior Engineer

Stephen McLandrich, PE, GE
Associate

KTR::SMM/mmb

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Important Information

ACRONYMS

FS	Factor of Safety
GDM	Geotechnical Design Manual
IBC	International Building Code
ODOT	Oregon Department of Transportation
OHW	Ordinary High Water
OLW	Ordinary Low Water
OSSC	Oregon Standard Specifications for Construction

1 INTRODUCTION

This report presents the results of our field exploration, laboratory testing, geotechnical design evaluations and recommendations, and construction considerations for the proposed Accessible Boat Launch project at Cook Park in Tigard, Oregon. The City of Tigard (the City), along with their engineering consultant Century West, Inc. (Century West), are planning to construct a new floating boat launch adjacent to the existing floating boat launch at Cook Park. As a consultant to the City, Shannon & Wilson, Inc. (Shannon & Wilson) is providing geotechnical engineering services to support the engineering design of the proposed new floating boat launch foundations. The location of the project site is shown on the Vicinity Map, Figure 1.

2 PROJECT UNDERSTANDING

2.1 Site Description

The proposed accessible boat launch will be located at the south end of the park between the existing Boat Launch and Shelter 3 at Cook Park in Tigard, Oregon. The project site is on the north side of the Tualatin River where it makes a large southern bend. Tigard High School is to the north of the site and Durham City Park to the east. The topography at the project site gradually slopes down to the river, increasing in proximity to the Tualatin River, and is currently a grass-covered lawn with tall bushes and grasses along the riverbank. An asphalt parking lot and paved walkway are located at the top of this slope above the river. A photograph of the site is shown in Exhibit 2-1, below.



Exhibit 2-1: View looking east from the parking lot at the area where the new accessible boat launch will be located.

2.2 Project Description

It is our understanding that a new concrete pathway will extend from the existing parking lot to a gangway which will connect to the accessible dock. Based on preliminary design drawings provided by Century West, the proposed accessible boat launch will consist of a gangway ramp connected to a floating dock with an accessible boat launch for pedestrian use. Design drawings indicate two 12-inch diameter steel pipe piles will secure the gangway ramp at the top and four 16-inch diameter steel pipe piles will secure the floating dock. The depth of the pile foundations has not been finalized but is anticipated to extend into the Hillsboro Formation. Vertical and lateral loading has not been provided at this time. We understand that the structural engineer will use the geotechnical allowable axial resistance and lateral loading properties of the subsurface soils, in the form of L-Pile parameters, for use in developing the foundation design.

2.3 Scope of Services

Shannon & Wilson's services were conducted in accordance with the scope of services defined in Purchase Order #P2400040, dated November 2, 2023. The completed geotechnical design services for the project consisted of the following tasks:

- Observe surface and geologic conditions of the site and identify site constraints, staging concerns for geotechnical exploration and construction, and submit utility locate ticket for proposed geotechnical exploration;
- Drill one geotechnical boring to evaluate the subsurface conditions at the proposed site;
- Perform lab testing on selected soil samples collected from geotechnical boring;
- Provide recommended axial resistance for 12- and 16-inch-diameter steel piles;
- Provide lateral loading soil properties in the form of L-Pile parameters for the driven steel piles;
- Evaluate slope stability of proposed earthwork slopes required for gangway construction; and
- Provide this Geotechnical Engineering Report summarizing foundation design recommendations and construction considerations for the proposed improvements.

3 GEOLOGIC SETTING

3.1 Regional and Local Geology

The project site lies in the eastern half of the Tualatin Basin: an approximately 35-mile-long by 20-mile-wide, northwest-trending, gently sloping synclinal valley (Madin, 1990). The Tualatin Basin is one of several localized sub-basins within the Willamette Lowland, which is a broader regional geologic depression (Gannett and Caldwell, 1998). The basins are structural depressions, created by complex folding and faulting of the basement rocks (Schlicker and Deacon, 1967). The basement, or floor, of the basins is made up of lava flows collectively referred to as the Columbia River Basalt Group (CRBG), which flowed into the area in the middle Miocene epoch, between about 17 and 6 million years ago.

Over the span of geologic time, sedimentary deposits consisting of clay, silt, sand, and gravel eroded from the surrounding uplands and settled into the basins that formed on the CRBG surface. In the Tualatin Basin, these sediments have historically been referred to by several names, including the Troutdale Formation (Schlicker and Deacon, 1967); the Sandy River Mudstone equivalent (Madin, 1990); and the Hillsboro Formation (Wilson, 1998). For the purposes of this report, Shannon & Wilson refer to these upper-Miocene to Pleistocene age (approximately 11- to 1-million-year-old) basin-fill sediments as Hillsboro Formation, after Wilson (1998).

The Hillsboro Formation varies in thickness, reaching up to 860 feet near the center of the basin and tapering out at the basin margins. It consists predominantly of clay and silt, with some thin sand layers and rare gravelly sands. It is not known to be exposed at the ground

surface and is generally covered by younger alluvial deposits or rocks of the Boring volcanic field (on the west slopes of the Tualatin Mountains).

The Hillsboro Formation is extensively overlain by a layer of late-Pleistocene Missoula Flood sediment. During the late stages of the last great ice age, between about 18,000 and 15,000 years ago, a lobe of the continental ice sheet repeatedly blocked and dammed the Clark Fork River in western Montana, which then formed an immense glacial lake called Lake Missoula. The lake grew until its depth was sufficient to buoyantly lift and rupture the ice dam, which allowed the entire massive lake to empty catastrophically. Once the lake had emptied, the ice sheet again gradually dammed the Clark Fork Valley and the lake refilled, leading to 40 or more repetitive outburst floods at intervals of decades (Allen and others, 2009). During each short-lived episode, floodwaters washed across the Idaho panhandle, through the eastern Washington scablands, and through the Columbia River Gorge. When the floodwater emerged from the western end of the gorge, it spread out over the Portland Basin and up the Willamette Valley as far south as Junction City, depositing a Tremendous load of sediment (O'Conner and others, 2001). The floods deposited extensive gravel bars across east Portland and up to 50 feet of micaceous sand and clayey to fine sandy silt in the Tualatin Basin. Fine-grained Missoula Flood sediments deposited in the Tualatin Basin are commonly referred to as Willamette Silt (Wilson, 1998). For the purposes of this report, Shannon & Wilson refer to these sediments as Fine-grained Missoula Flood Deposits, after Ma and others (2012).

The Tualatin River and its many tributary creeks and streams have locally eroded the older sediments (principally Missoula Flood deposits) and re-deposited the sediment along their modern floodplains. These modern sedimentary deposits generally consist of clay, silt, fine-grained sand, and organic material with minor gravel. Thickness of the Holocene (recent) alluvium varies with location and is difficult to determine, because there is little distinction between it and the deposits from which it originated.

4 FIELD EXPLORATIONS

The geotechnical field exploration program included a single geotechnical boring, designated B-1. The geotechnical boring was performed near the top of the proposed gangway ramp. The approximate location of the boring is shown on Figure 2, Site and Exploration Plan.

It should be noted that a geotechnical boring was not also drilled at the proposed location for the floating dock piles. An in-water work permit would be required to drill a boring in the Tualatin River. However, the process of obtaining the in-water work permit and

permitted work window would not have allowed us to meet the project schedule. After comparing subsurface conditions encountered in the single project geotechnical boring, B-1, to nearby geotechnical borings, the subsurface conditions were assumed to be consistent across the project site.

The geotechnical boring for this project was drilled on November 10, 2023, to an approximate depth of 61.5 feet below ground surface (bgs) using mud rotary techniques. The track-mounted CME-550 drill rig was provided and operated by Western States Soil Conservation, Inc., of Hubbard, Oregon.

A Shannon & Wilson geologist was present during the site reconnaissance to locate the boring and during drilling to collect and log the soil samples encountered.

5 LABORATORY TESTING

The samples obtained during drilling were transported to the Shannon & Wilson laboratory for further examination. The soil testing program included moisture content tests, particle-size analyses, and Atterberg limits tests. All samples were tested in Shannon & Wilson's laboratory. All test procedures were performed in accordance with applicable ASTM International standards. Results of the laboratory tests and brief descriptions of the test procedures are presented in Appendix B.

6 SUBSURFACE CONDITIONS

6.1 Geotechnical Units

Shannon & Wilson grouped the materials encountered in the geotechnical boring into the following geotechnical units, as described below. This interpretation of the subsurface conditions is based on the geotechnical exploration and regional geologic information from published sources. The geotechnical units are as follows:

- **Alluvium**: Loose/very soft Sandy Silt to Sandy Elastic Silt (ML/MH) with trace organics, and very loose Silty Sand (SM) with trace organics;
- **Marsh Deposits**: Very loose Silty Sand (SM) with some to mostly organics;
- **Fine-Grained Missoula Flood Deposits**: Stiff to very stiff Lean Clay (CL) and medium dense to very stiff Sandy Silt (ML);
- **Hillsboro Formation**: Very stiff to hard Lean Clay to Lean Clay with Sand (CL) and dense Silty Sand (SM).

These geotechnical units were grouped based on their engineering properties, geologic origins, and their distribution in the subsurface. Contacts between the units may be more gradational than shown in the boring log in Appendix A. The Standard Penetration Test (SPT) N-values shown on the boring logs are as recorded in the field (uncorrected).

As aforementioned, subsurface conditions based on boring B-1 were assumed across the project site. Additional geotechnical borings would be required to determine subsurface conditions at other locations within the project site.

6.2 Groundwater

The geotechnical boring B-1 was advanced using mud rotary drilling techniques that introduce fluids into the borehole. This makes it difficult to discern the depth of groundwater if it is encountered during drilling.

Groundwater is interpreted to be near or slightly above the elevation of the Tualatin River and is expected to fluctuate at the site with fluctuations in the Tualatin River. Locally, groundwater highs typically occur in the late fall to spring, and groundwater lows typically occur in the late summer and early fall. However, for design purposes, the groundwater was assumed to be at the Ordinary High Water (OHW) elevation of 108 feet, based on preliminary drawings.

7 BOAT LAUNCH DESIGN RECOMMENDATIONS

7.1 General

Based on preliminary drawings provided by Century West, it is our understanding that the new accessible boat launch will be founded/secured on two 12-inch-diameter driven steel pipe piles at the top of the gangway and four 16-inch-diameter driven steel pipe piles at the floating dock. No seismic hazard analysis is required. The design recommendations contained within the subsequent sections of this report are based on these assumptions.

7.2 Gangway Cut Slope Global Stability

Global stability was evaluated at the proposed cut slope to accommodate the gangway assuming groundwater at both Ordinary High Water (OHW) and Ordinary Low Water (OLW) elevations. Generalized subsurface conditions were estimated based on boring B-1, presented in Appendix A. Soil parameters were estimated from the results of field explorations and laboratory testing.

We conducted global stability analyses for the proposed cut slope using the computer program SLOPE/W, Version 10 (Geo-Slope International, 2019). This program employs limit-equilibrium methods in accordance with the ODOT GDM (ODOT, 2019). The Morgenstern-Price slope stability analysis method was used for rotational and irregular surface failure mechanisms. The analysis was performed for static conditions only.

The global stability analyses for the proposed cut slope for groundwater conditions at the OHW and OLW elevations resulted in a satisfactory Factor of Safety (FS) of 1.5 and 1.9, respectively. However, only the results of the global stability analysis for OHW, presented in Figure 3, are included at the end of this report.

7.3 Driven Pile Design Recommendations

7.3.1 General

The following sections provide our recommendations for axial resistance and lateral resistance soil properties of driven steel pipe piles. Based on preliminary design information provided by Century West, we evaluated 12-inch- and 16-inch-diameter steel pipe piles. Pile wall thickness is not available at this time so, for design purposes, a wall thickness of 0.375 inches was assumed. Based on the subsurface conditions, we recommend the piles be driven or vibrated open-ended.

7.3.2 Driven Pile Axial Resistance

We recommend that the steel pipe piles conform to the requirements of ASTM A252, Grade 3. Mill certification of the steel should be provided by the supplier. All portions of pile design and construction should meet the requirements of Oregon Standard Specifications for Construction (OSSC) Section 00520 (ODOT, 2024) and its project special provisions. Exhibit 7-1 presents the typical pile section design properties.

Exhibit 7-1: Steel Pipe Pile Section Properties

Pile Type	Steel Grade (kips/inch^2)	Section Area (inch^2)	Nominal Structural Capacity (kips)
PP 12x0.375	A252 Grade 3	13.7	615
PP 16x0.375	A252 Grade 3	18.4	825

We recommend the ultimate and allowable compressive resistance of the piles is established using an FS of 3.0.

Our axial resistance analysis results are presented on Figures 4 and 5. These results are presented as plots of ultimate and allowable axial resistance versus depth for static conditions only. The resistances presented are based on a single pile and do not consider

axial group effects due to our understanding that the piles will be spaced at least 2.5 pile diameters (2.5D) apart (center-to-center).

7.3.3 Driven Pile Lateral Resistance Soil Properties

The driven pile foundations will be subjected to lateral loads resulting from live loading. We understand that the laterally loaded pile analyses will be performed by the structural engineer responsible for the design of the piles with the aid of the L-Pile computer program.

Table 1, included at the end of this report, presents the recommended static L-Pile geotechnical input parameters for driven piles with center-to-center spacing greater than five pile diameters (5D) and in a single row.

7.3.4 Driven Pile Foundation Construction Considerations

7.3.4.1 Pile Driving Criteria

As previously stated, we recommend steel piles be installed using impact or vibratory techniques. However, if piles are installed using a vibratory hammer, we recommend using an impact hammer to confirm axial resistance of the pile. Additionally, we recommend that pile driving and installation of piles follow the OSSC, Section 00520 (ODOT, 2024), and its project special provisions. If splicing pile lengths in the leads is necessary to install the piles, then splicing locations should be approved by the structural engineer. All pile splices should be made according to the OSSC and procedures for piling with lateral and tension loading conditions. Also, the piles should be driven no closer together than 2.5 pile diameters (2.5D), measured from center-to-center and within 6 inches of locations shown on the plans. The pile driving alignment tolerance should follow the OSSC.

We recommend that the piles be driven to a minimum pile length of 30 feet below ground surface (bgs) considering the potential scour depth. However, the final minimum pile tip depth should be determined based on the geotechnical and structural design recommendations. If the specified bearing resistance is reached before the minimum tip elevation or minimum pile embedment, driving should continue until the minimum design requirements are reached. If driving must be terminated before the minimum requirements are achieved because driving stresses are greater than 90 percent of the yield strength, F_y (of the steel pile), or to prevent other damage to the pile or hammer, the driving records should be reviewed by the professional geotechnical engineer of record to evaluate both compressive and lateral resistance of the pile. In the case that a pile meets obstructions or terminal driving resistance with less than the minimum required pile embedment, the pile may need to be relocated, or the addition of piles to the pile group may be required. In such case, the pile cap design may need to be reevaluated by the structural engineer.

Prior to construction, driving criteria including the "last set" should be established for the specific pile driving equipment proposed for use. The hammer selected by the contractor should be capable of achieving the required nominal resistance at a blow count between 2 and 10 blows per inch, as determined by a WEAP analysis specified in the OSSC, Section 00520.42(c) (ODOT, 2024). This analysis should include the specific hammer, helmet, and cushion characteristics proposed by the contractors for the project.

Exhibit 7-2 presents the recommended WEAP input parameters. If Dynamic Pile Monitoring, or Pile Driving Analyzer® (PDA) testing, is used with the signal matching software program, CAPWAP, then an decreased FS may be used to establish factored pile resistance.

Exhibit 7-2: Recommended Input Parameters for WEAP Analysis

	Quake (in)		Damping (s/ft)			
Pile Section	Skin	Toe	Skin	Toe	Friction Distribution Shape	Percent Skin Friction (%)
PP12x0.375	0.10	0.20	0.20	0.15	triangular	85
PP16x0.375	0.10	0.20	0.20	0.15	triangular	70

During pile driving, a continuous record of pile driving resistance (bpf) should be maintained for the full length of each pile driven, as well as other pertinent information, including observed hammer performance. If an open-end diesel hammer is used to drive the piles, the pile driving contractor should supply a Saximeter™ during pile driving to determine an actual stroke height and pile driving energy. We recommend that an engineering staff representative, under the guidance of a professional geotechnical engineer, monitor pile driving in order to evaluate the suitability of each pile driven.

If piles do not meet driving criteria when driven to the specified lengths, redriving may be performed in accordance with OSSC, Section 00520.42(d) (ODOT, 2024). The piles should be allowed to stand for a "set period" of at least 24 hours without driving, then redriving should be performed. If the piles do not meet driving criteria during redriving, all piles should be further driven until the required bearing resistance is attained.

7.3.4.2 Pile Driving Vibration Impacts

We understand Shelter 3 is the nearest existing structure, approximately 100 feet from the proposed pile driving location for the gangway anchor piles. Therefore, pile driving vibration on the nearby shelter may be a concern. We recommend the contractor perform a pre-construction condition survey of any existing structure within 150 feet of the pile driving area to document pre-pile driving conditions and evaluate any possible post-pile driving damage. The pre-construction condition survey may include photographs, survey points, or other information that would allow the contractor to document pre-pile driving

conditions and evaluate any potential building damage during pile driving. In addition, the design should evaluate whether any vibration-sensitive facilities, such as the nearby country club, are within 1/4-mile of the pile driving area.

7.3.4.3 Pile Driving Noise

Pile driving will be very noisy and may disturb nearby residents and the environment. The Agency should evaluate any potential noise impacts to surrounding residents. In addition, construction noise should meet local noise ordinances.

8 LIMITATIONS

The analyses, interpretations, conclusions, and recommendations contained in this report are based on site conditions as they presently exist and further assume that the exploration is representative of the subsurface conditions throughout the site; that is, the subsurface conditions everywhere are not significantly different from those disclosed by the past and current explorations. If future phases of work at the site uncover subsurface conditions different from those encountered in these explorations, we should be advised at once so that we can review these encountered conditions and reconsider our interpretations and conclusions, where necessary. If there is a substantial lapse of time between the submission of this report and the start of future phases of work at the site, or if conditions have changed because of natural forces or construction operations at or adjacent to the site, we recommend that we review our report to determine the applicability of the conclusions and recommendations.

Within the limitations of scope, schedule, and budget, the analyses, interpretations, conclusions, and recommendations presented in this report were prepared in accordance with generally accepted professional geotechnical engineering principles and practice in this area at the time this report was prepared. We make no other warranty, either express or implied. These interpretations and conclusions were based on our understanding of the project as described in this report and the site conditions as observed previously and at the time of our current explorations.

This report was prepared for the exclusive use of the City of Tigard. During future phases of work involving construction, the data contained in this report should be provided to the contractors for their information, but our report interpretations and conclusions should not be construed as a warranty of subgrade conditions as included in this report.

The scope of our present services did not include environmental assessments or evaluations regarding the presence or absence of wetlands, or hazardous or toxic substances in the soil,

surface water, groundwater, or air, on or below or around this site, or for the evaluation or disposal of contaminated soils or groundwater should any be encountered.

Shannon & Wilson, Inc., has prepared and included, "Important Information About Your Geotechnical/Environmental Report," to assist you and others in understanding the use and limitations of our reports.

9 REFERENCES

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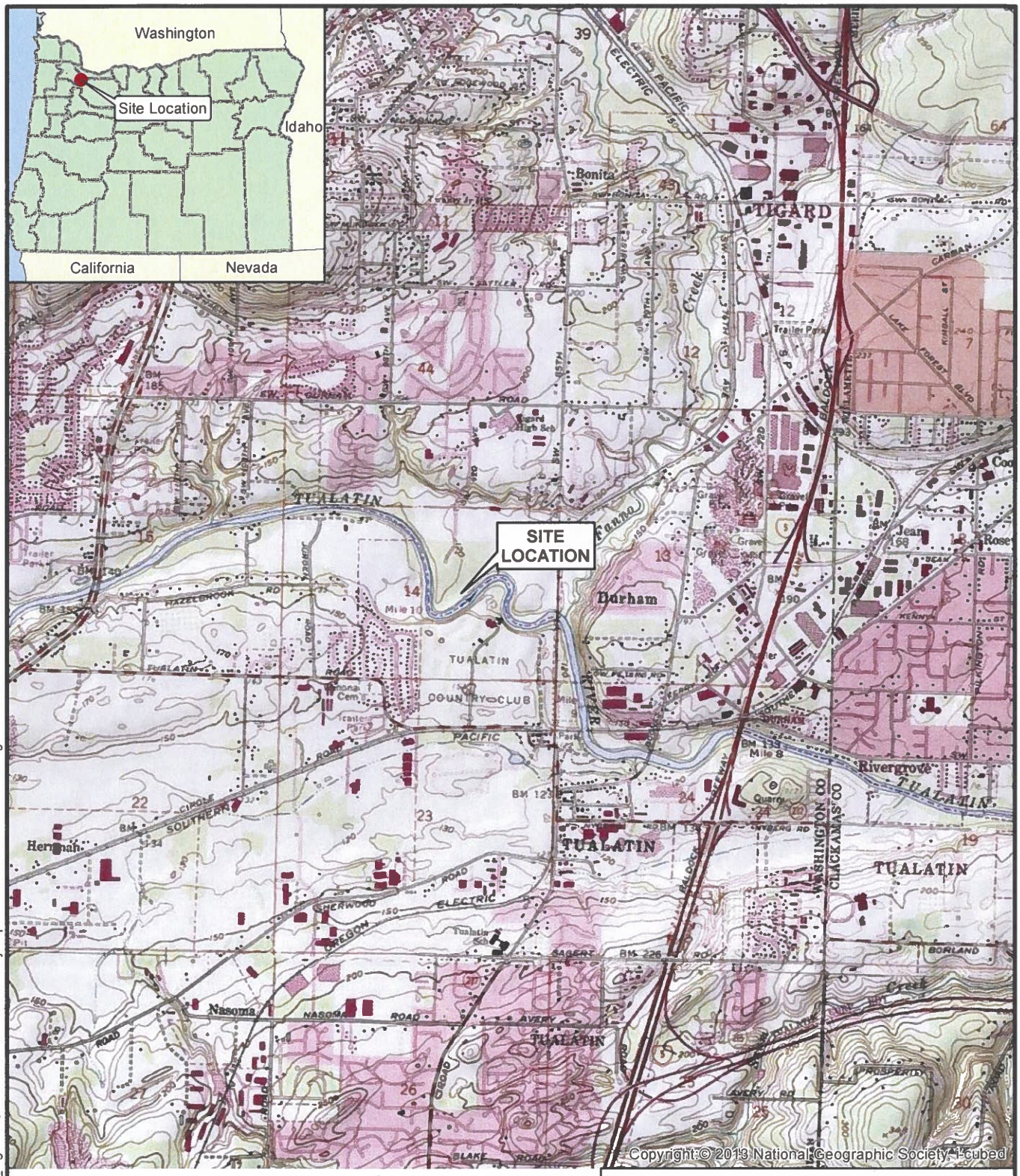
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Table 1 - Recommended Static LPILE Geotechnical Input Parameters for Deep Foundations

	Depth[a] (feet)					Sand (Reese)		Clay	
	From	To	Soil Unit	Recommended P-Y Curve	Effective Unit Weight (pcf)	Friction Angle (deg)	k (pci)	Undrained Cohesion (psf)	Strain Factor, ε_{50}
Boring B-1	0	3.5	Alluvium / Marsh Deposits	Sand (Reese)	110	26	20	--	--
	3.5	23	Alluvium / Marsh Deposits	Sand (Reese)	43	26	10	--	--
	23	29	Fine-grained Missoula Flood Deposits	Stiff Clay w/o free water (Reese)	53	--	--	1,900	0.006
	29	33	Fine-grained Missoula Flood Deposits	Stiff Clay w/o free water (Reese)	53	--	--	2,900	0.005
	33	38	Fine-grained Missoula Flood Deposits	Sand (Reese)	53	29	60	--	--
	38	48	Hillsboro Formation	Stiff Clay w/o free water (Reese)	58	--	--	3,250	0.0045
	48	53	Hillsboro Formation	Stiff Clay w/o free water (Reese)	58	--	--	4,000	0.004
	53	58	Hillsboro Formation	Sand (Reese)	58	38	105	--	--
	58	Pile or Shaft Tip	Hillsboro Formation	Stiff Clay w/o free water (Reese)	58	--	--	2,350	0.0065

NOTES:
a Depth = 0 feet corresponds to ground surface
deg = degrees; pcf = pounds per cubic foot; pci = pounds per cubic inch; psf = pounds per square foot; psi = pounds per square inch; UCS = uniaxial compressive strength



0 0.25 0.5 1

Scale in Miles

N

Cook Park Accessible Boat Launch
Tigard, Oregon

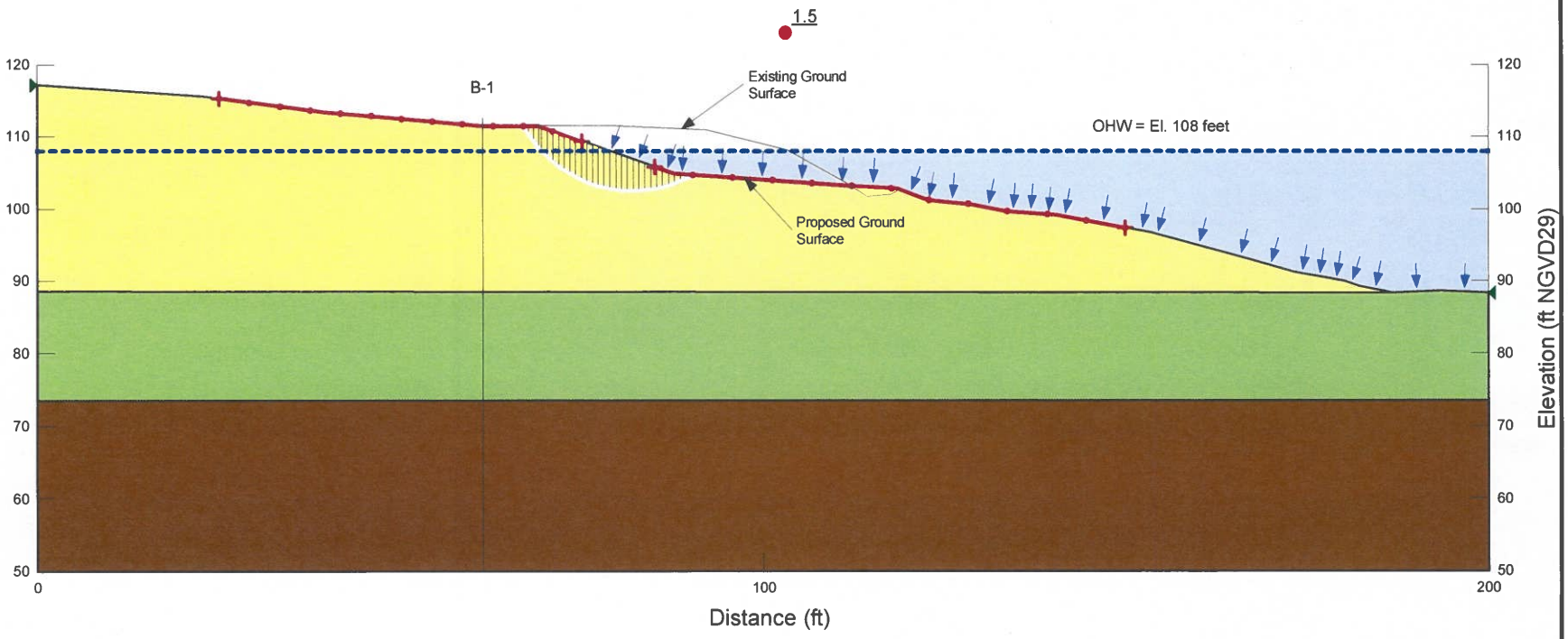
VICINITY MAP

January 2024 112406

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FIG. 1

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Color	Name	Material Model	Unit Weight (pcf)	Cohesion (psf)	Effective Cohesion (psf)	Effective Friction Angle (°)
	01 Alluv/Marsh Deposits	Mohr-Coulomb	110		0	26
	02 MFDFG	Mohr-Coulomb	110		0	29
	03 Hillsboro Form	Undrained (Phi=0)	120	4,000		

NOTES

1. Critical failure surface estimated using the entry and exit search criteria and the Morgenstern and Price (1965) analysis method.
2. See report text for additional information about analyses and assumptions.

Cook Park Accessible Boat Launch Project
Tigard, Oregon

GLOBAL STABILITY ANALYSIS
GANGWAY CUT SLOPE
STATIC CONDITION

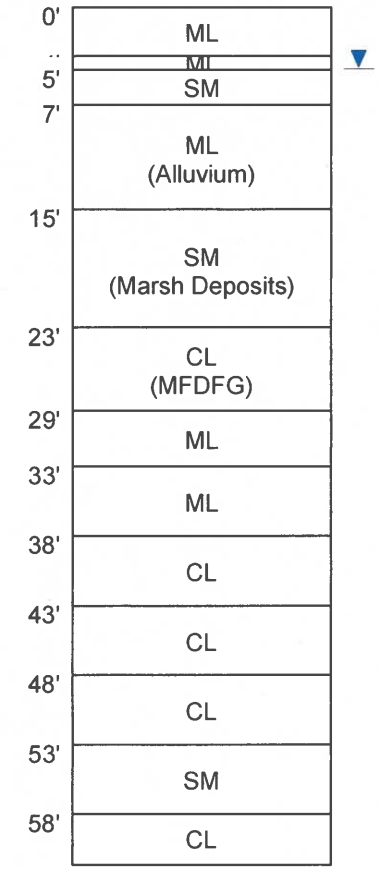
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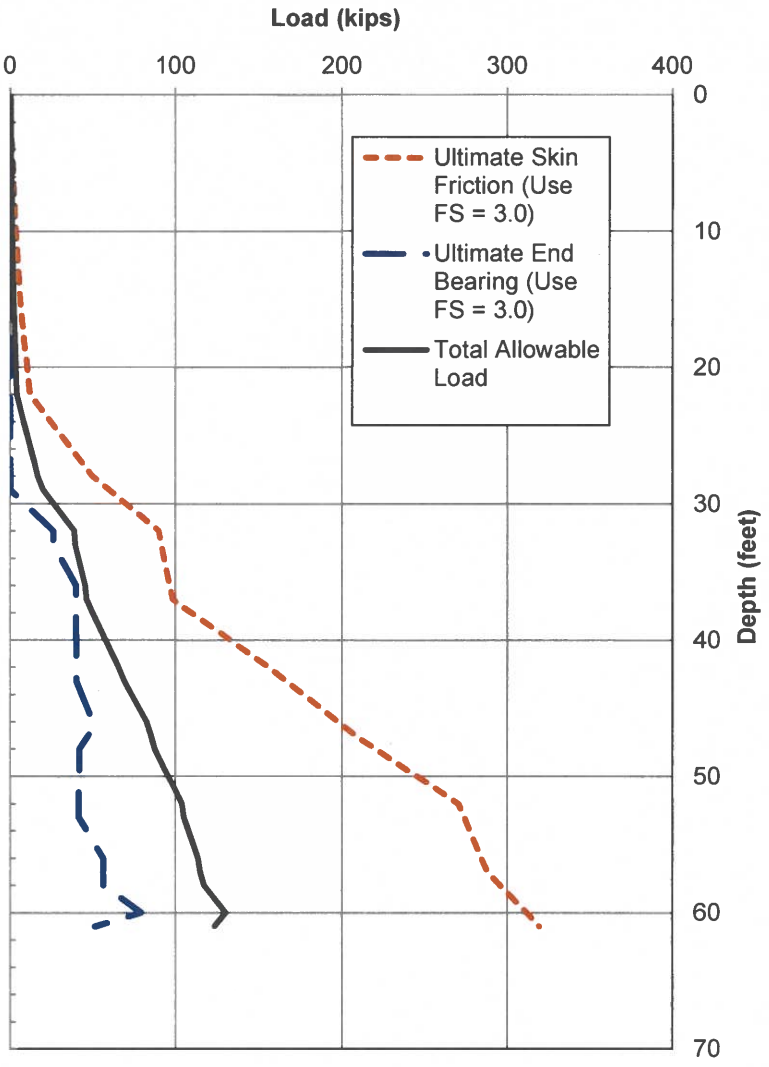
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FIG. 3

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Approximate Subsurface Profile
(Based on Boring B-1)





NOTES:

1. We performed the analyses based on guidelines in the OSSC and our local experience. The analyses consider a single pile, not group action of closely spaced piles (closer than 2.5 diameters, center to center).

2. Total pile capacity is a summation of its skin friction and end bearing. Ultimate capacity shown on plots above are to be divided by the a FS = 3.0 for skin friction and end bearing to calculate the total allowable load for static conditions.

3. Per the ODOT GDM (ODOT, 2019), we did not consider potential liquefaction below a depth of 75 feet.

4. We estimate an unfactored downdrag load of 4 kips due to liquefaction.

ABBREVIATIONS:

ODOT = Oregon Department of Transportation
OSSC = Oregon Structural Specialty Code
GDM = Geotechnical Design Manual
FS = Factor of Safety

Cook Park Accessible Boat Launch
Tigard, Oregon

ESTIMATED AXIAL RESISTANCE
12-INCH-DIAMETER PIPE PILE

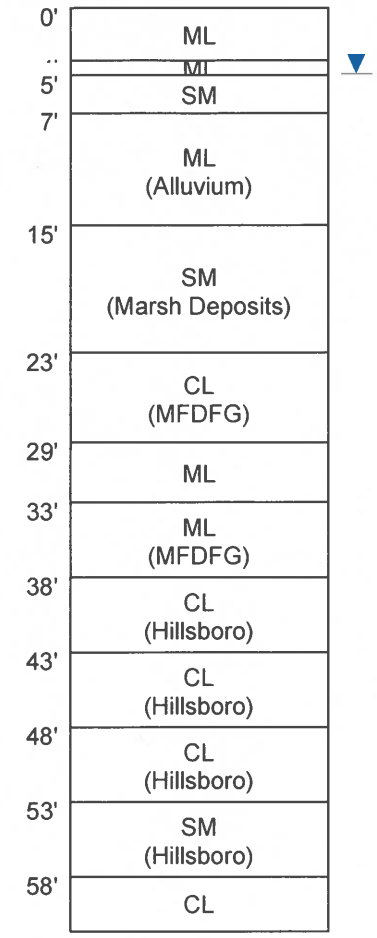
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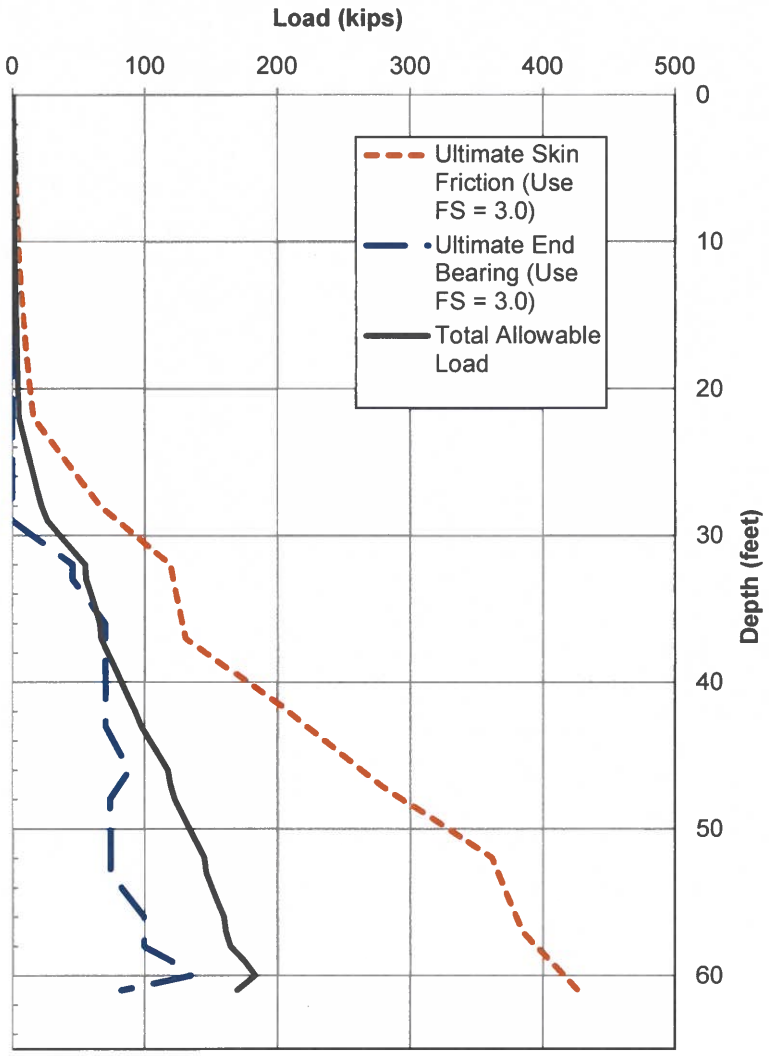
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FIG. 4

Printed: 12-20-23 13:36 File: P:\PDX\112000s\112406 Tigard - Cook Launch\Analysis\Deep Foundations\[Deep_Foundation_v1.0.0_12OE.xlsm]PILE PLOT UNFAC-KTR

Approximate Subsurface Profile
(Based on Boring B-1)





NOTES:

1. We performed the analyses based on guidelines in the OSSC and our local experience. The analyses consider a single pile, not group action of closely spaced piles (closer than 2.5 diameters, center to center).

2. Total pile capacity is a summation of its skin friction and end bearing. Ultimate capacity shown on plots above are to be divided by the a FS = 3.0 for skin friction and end bearing to calculate the total allowable load for static conditions.

3. Per the ODOT GDM (ODOT, 2019), we did not consider potential liquefaction below a depth of 75 feet.

4. We estimate an unfactored downdrag load of 5 kips due to liquefaction.

ABBREVIATIONS:

ODOT = Oregon Department of Transportation
OSSC = Oregon Structural Specialty Code
GDM = Geotechnical Design Manual
FS = Factor of Safety

Cook Park Accessible Boat Launch
Tigard, Oregon

ESTIMATED AXIAL RESISTANCE
16-INCH-DIAMETER PIPE PILE

January 2024 112406

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 5

Printed: 12-21-23 14:43 File: P:\PDX\112000s\112406 Tigard - Cook Launch\Analysis\Deep Foundations\[Deep_Foundation_v1.0.0_16OE.xlsm]SOIL INPUT-KTR

APPENDIX A: FIELD EXPLORATIONS

Appendix A

Field Explorations

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Figure A1: Soil Description and Log Key
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APPENDIX A: FIELD EXPLORATIONS

A.1 GENERAL

The field exploration program for this project consisted of performing a single geotechnical boring designated B-1. The approximate location of the completed boring was measured in the field and is shown on the Site and Exploration Plan, Figure 2. A Shannon & Wilson geologist was present during the drilling of the geotechnical boring to locate the drilling site, log the material encountered, and collect disturbed and undisturbed soil samples.

This appendix describes the techniques used to advance and sample the boring and presents a log of the materials encountered.

A.2 GEOTECHNICAL BORINGS

The geotechnical boring was drilled and sampled on November 10, 2023 by Western States Soil Conservation Inc. out of Hubbard, Oregon using a track mounted CME-550 drilling rig.

A.2.1 Disturbed Sampling

Disturbed samples were collected in the boring, typically at 2.5- to 5-foot depth intervals, using a standard 2-inch-outside-diameter (O.D.) split spoon sampler in conjunction with Standard Penetration Testing. In a Standard Penetration Test (SPT), ASTM D1586, the sampler is driven 18 inches into the soil using a 140-pound hammer dropped 30 inches. The number of blows required to drive the sampler the last 12 inches is defined as the standard penetration resistance, or N-value. The SPT N-value provides a measure of in situ relative density of cohesionless soils (silt, sand, and gravel), and the consistency of cohesive soils (silt and clay). All disturbed samples were visually identified and described in the field, sealed to retain moisture, and returned to our laboratory for additional examination.

SPT N-values can be significantly affected by several factors, including the efficiency of the hammer used. Automatic hammers generally have higher energy transfer efficiencies than cathead-driven (manual) hammers. For reference, cathead hammers are typically assumed to have an average energy efficiency of 60 percent. All N-values presented in this report are in blows per foot, as counted in the field. No corrections of any kind have been applied.

A.2.2 Undisturbed Sampling

Undisturbed samples were collected in a 3-inch O.D. thin-wall Shelby tubes which was hydraulically pushed into the undisturbed soil at the bottoms of boreholes. The soil exposed at the end of the tube was examined and described in the field. After examination,

the ends of the tube were sealed to preserve the natural moisture of the samples. The sealed tube was stored in the upright position and care was taken to avoid shock and vibration during its transport and storage in our laboratory.

A.3 MATERIAL DESCRIPTIONS

In the field, soil samples were identified visually in general accordance with ASTM D2488 Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). Consistency, color, relative moisture, degree of plasticity, peculiar odors and other distinguishing characteristics of the samples were noted. Once returned to the laboratory, soil samples were re-examined, and field identifications were modified as necessary. We refined our visual-manual soil identifications based on additional observation using elements of the Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System), ASTM D2487. The specific terminology used in the soil identifications is defined on the Soil Description and Log Key, Figure A1.

A.4 LOGS OF BORINGS

A summary log of the boring is presented in the Log of Boring B-1, Figure A2. Material descriptions and interfaces on the logs are interpretive, and actual changes may be gradual. The left-hand portions of the logs show individual sample intervals, percent recovery, SPT data, and natural moisture content measurements. Material descriptions and geotechnical unit designations are shown in the center of the boring logs, and right-hand portion of the boring logs shows a graphic log, sample locations and designations, backfill details, and a graphical representation of N-values, natural water contents, Atterberg limits, and sample recovery.

A.5 BOREHOLE ABANDONMENT

The boring was backfilled with bentonite chips in accordance with Oregon Water Resource Department regulations, up to a depth of approximately 1 foot. Native soil was used as backfill from approximately 1 foot up to the ground surface.

Shannon & Wilson, Inc. (S&W), uses a soil identification system modified from the Unified Soil Classification System (USCS). Elements of the USCS and other definitions are provided on this and the following pages. Soil descriptions are based on visual-manual procedures (ASTM D2488) and laboratory testing procedures (ASTM D2487), if performed.

S&W INORGANIC SOIL CONSTITUENT DEFINITIONS

CONSTITUENT[2]	FINE-GRAINED SOILS (50% or more fines)[1]	COARSE-GRAINED SOILS (less than 50% fines)[1]
Major	***Silt, Lean Clay, Elastic Silt,*** or ***Fat Clay***[3]	***Sand*** or ***Gravel***[4]
Modifying (Secondary) Precedes major constituent	30% or more coarse-grained: ***Sandy*** or ***Gravelly***[4]	More than 12% fine-grained: ***Silty*** or ***Clayey***[3]
Minor Follows major constituent	15% to 30% coarse-grained: ***with Sand*** or ***with Gravel***[4]	5% to 12% fine-grained: ***with Silt*** or ***with Clay***[3]
	30% or more total coarse-grained *and* lesser coarse-grained constituent is 15% or more: ***with Sand*** or ***with Gravel***[5]	15% or more of a second coarse-grained constituent: ***with Sand*** or ***with Gravel***[5]

[1]All percentages are by weight of total specimen passing a 3-inch sieve.
[2]The order of terms is: *Modifying Major with Minor.*
[3]Determined based on behavior.
[4]Determined based on which constituent comprises a larger percentage.
[5]Whichever is the lesser constituent.

MOISTURE CONTENT TERMS

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, from below water table

STANDARD PENETRATION TEST (SPT) SPECIFICATIONS

Hammer:	140 pounds with a 30-inch free fall. Rope on 6- to 10-inch-diam. cathead 2-1/4 rope turns, > 100 rpm
Sampler:	10 to 30 inches long Shoe I.D. = 1.375 inches Barrel I.D. = 1.5 inches Barrel O.D. = 2 inches
N-Value:	Sum blow counts for second and third 6-inch increments. Refusal: 50 blows for 6 inches or less; 10 blows for 0 inches.

NOTE: Penetration resistances (N-values) shown on boring logs are as recorded in the field and have not been corrected for hammer efficiency, overburden, or other factors.

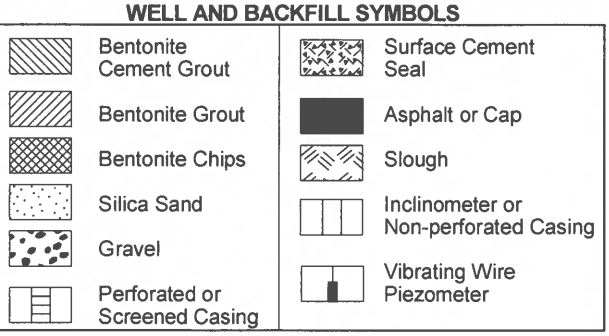
PARTICLE SIZE DEFINITIONS

DESCRIPTION	SIEVE NUMBER AND/OR APPROXIMATE SIZE
FINES	< #200 (0.075 mm = 0.003 in.)
SAND	
Fine	#200 to #40 (0.075 to 0.4 mm; 0.003 to 0.02 in.)
Medium	#40 to #10 (0.4 to 2 mm; 0.02 to 0.08 in.)
Coarse	#10 to #4 (2 to 4.75 mm; 0.08 to 0.187 in.)
GRAVEL	
Fine	#4 to 3/4 in. (4.75 to 19 mm; 0.187 to 0.75 in.)
Coarse	3/4 to 3 in. (19 to 76 mm)
COBBLES	3 to 12 in. (76 to 305 mm)
BOULDERS	> 12 in. (305 mm)

RELATIVE DENSITY / CONSISTENCY

COHESIONLESS SOILS		COHESIVE SOILS	
N, SPT, BLOWS/FT.	RELATIVE DENSITY	N, SPT, BLOWS/FT.	RELATIVE CONSISTENCY
< 4	Very loose	< 2	Very soft
4 - 10	Loose	2 - 4	Soft
10 - 30	Medium dense	4 - 8	Medium stiff
30 - 50	Dense	8 - 15	Stiff
> 50	Very dense	15 - 30	Very stiff
		> 30	Hard

WELL AND BACKFILL SYMBOLS



PERCENTAGES TERMS [1, 2]

Trace	< 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

[1]Gravel, sand, and fines estimated by mass. Other constituents, such as organics, cobbles, and boulders, estimated by volume.

[2]Reprinted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.

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Tigard, Oregon

SOIL DESCRIPTION AND LOG KEY

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FIG. A1
Sheet 1 of 3

2013_BORING_CLASS3 112406.GPJ SW2013LIBRARYPDX.GLB SHANWIL_PDX.GDT 12/8/23

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)
(Modified From USACE Tech Memo 3-357, ASTM D2487, and ASTM D2488)

MAJOR DIVISIONS			GROUP SYMBOL	GRAPHIC SYMBOL	TYPICAL IDENTIFICATIONS
COARSE-GRAINED SOILS *(more than 50% retained on No. 200 sieve)*	Gravels *(more than 50% of coarse fraction retained on No. 4 sieve)*	Gravel *(less than 5% fines)*	GW		Well-Graded Gravel; Well-Graded Gravel with Sand
			GP		Poorly Graded Gravel; Poorly Graded Gravel with Sand
		Silty or Clayey Gravel *(more than 12% fines)*	GM		Silty Gravel; Silty Gravel with Sand
			GC		Clayey Gravel; Clayey Gravel with Sand
	Sands *(50% or more of coarse fraction passes the No. 4 sieve)*	Sand *(less than 5% fines)*	SW		Well-Graded Sand; Well-Graded Sand with Gravel
			SP		Poorly Graded Sand; Poorly Graded Sand with Gravel
		Silty or Clayey Sand *(more than 12% fines)*	SM		Silty Sand; Silty Sand with Gravel
			SC		Clayey Sand; Clayey Sand with Gravel
FINE-GRAINED SOILS *(50% or more passes the No. 200 sieve)*	Silts and Clays *(liquid limit less than 50)*	Inorganic	ML		Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt
			CL		Lean Clay; Lean Clay with Sand or Gravel; Sandy or Gravelly Lean Clay
		Organic	OL		Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
	Silts and Clays *(liquid limit 50 or more)*	Inorganic	MH		Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt
			CH		Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay
		Organic	OH		Organic Silt or Clay; Organic Silt or Clay with Sand or Gravel; Sandy or Gravelly Organic Silt or Clay
HIGHLY-ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor		PT		Peat or other highly organic soils (see ASTM D4427)
FILL	Placed by humans, both engineered and nonengineered. May include various soil materials and debris.				The Fill graphic symbol is combined with the soil graphic that best represents the observed material

NOTE: No. 4 size = 4.75 mm = 0.187 in.; No. 200 size = 0.075 mm = 0.003 in.

NOTES

1. Dual symbols *(symbols separated by a hyphen, i.e., SP-SM, Sand with Silt)* are used for soils with between 5% and 12% fines or when the liquid limit and plasticity index values plot in the *CL-ML* area of the plasticity chart.
2. Borderline symbols *(symbols separated by a slash, i.e., CL/ML, Lean Clay to Silt; SP-SM/SM, Sand with Silt to Silty Sand)* indicate that the soil properties are close to the defining boundary between two groups.
3. The soil graphics above represent the various USCS identifications (i.e., *GP*, *SM*, etc.) and may be augmented with additional symbology to represent differences within USCS designations. *Sandy Silt (ML)*, for example, may be accompanied by the *ML* soil graphic with sand grains added. Non-USCS materials may be represented by other graphic symbols; see log for descriptions.

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SOIL DESCRIPTION AND LOG KEY

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FIG. A1
Sheet 2 of 3

2013_BORING_CLASS3 112406.GPJ SW2013LIBRARYPDX.GLB SHANWIL_PDX.GDT 12/8/23

GRADATION TERMS

Poorly Graded	Narrow range of grain sizes present or, within the range of grain sizes present, one or more sizes are missing (Gap Graded). Meets criteria in ASTM D2487, if tested.
Well-Graded	Full range and even distribution of grain sizes present. Meets criteria in ASTM D2487, if tested.

CEMENTATION TERMS[1]

Weak	Crumbles or breaks with handling or slight finger pressure
Moderate	Crumbles or breaks with considerable finger pressure
Strong	Will not crumble or break with finger pressure

PLASTICITY[2]

DESCRIPTION	VISUAL-MANUAL CRITERIA	APPROX. PLASITICTY INDEX RANGE
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.	< 4%
Low	A thread can barely be rolled and a lump cannot be formed when drier than the plastic limit.	4 to 10%
Medium	A thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. A lump crumbles when drier than the plastic limit.	10 to 20%
High	It take considerable time rolling and kneading to reach the plastic limit. A thread can be rerolled several times after reaching the plastic limit. A lump can be formed without crumbling when drier than the plastic limit.	> 20%

ADDITIONAL TERMS

Mottled	Irregular patches of different colors.
Bioturbated	Soil disturbance or mixing by plants or animals.
Diamict	Nonsorted sediment; sand and gravel in silt and/or clay matrix.
Cuttings	Material brought to surface by drilling.
Slough	Material that caved from sides of borehole.
Sheared	Disturbed texture, mix of strengths.

PARTICLE ANGULARITY AND SHAPE TERMS[1]

Angular	Sharp edges and unpolished planar surfaces.
Subangular	Similar to angular, but with rounded edges.
Subrounded	Nearly planar sides with well-rounded edges.
Rounded	Smoothly curved sides with no edges.
Flat	Width/thickness ratio > 3.
Elongated	Length/width ratio > 3.

ACRONYMS AND ABBREVIATIONS

ATD	At Time of Drilling
approx.	Approximate/Approximately
Diam.	Diameter
Elev.	Elevation
ft.	Feet
FeO	Iron Oxide
gal.	Gallons
Horiz.	Horizontal
HSA	Hollow Stem Auger
I.D.	Inside Diameter
in.	Inches
lbs.	Pounds
MgO	Magnesium Oxide
mm	Millimeter
MnO	Manganese Oxide
NA	Not Applicable or Not Available
NP	Nonplastic
O.D.	Outside Diameter
OW	Observation Well
pcf	Pounds per Cubic Foot
PID	Photo-Ionization Detector
PMT	Pressuremeter Test
ppm	Parts per Million
psi	Pounds per Square Inch
PVC	Polyvinyl Chloride
rpm	Rotations per Minute
SPT	Standard Penetration Test
USCS	Unified Soil Classification System
q_u	Unconfined Compressive Strength
VWP	Vibrating Wire Piezometer
Vert.	Vertical
WOH	Weight of Hammer
WOR	Weight of Rods
Wt.	Weight

STRUCTURE TERMS[1]

Interbedded	Alternating layers of varying material or color with layers at least 1/4-inch thick; singular: bed.
Laminated	Alternating layers of varying material or color with layers less than 1/4-inch thick; singular: lamination.
Fissured	Breaks along definite planes or fractures with little resistance.
Slickensided	Fracture planes appear polished or glossy; sometimes striated.
Blocky	Cohesive soil that can be broken down into small angular lumps that resist further breakdown.
Lensed	Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay.
Homogeneous	Same color and appearance throughout.

[1]Reprinted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.
[2]Adapted, with permission, from ASTM D2488 - 09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. A copy of the complete standard may be obtained from ASTM International, www.astm.org.

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SOIL DESCRIPTION AND LOG KEY

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FIG. A1
Sheet 3 of 3

2013_BORING_CLASS3 112406.GPJ SW2013LIBRARYPDX.GLB SHANWIL_PDX.GDT 12/8/23

Total Depth:	61.5 ft.	Northing:	~ 125,554 ft.	Drilling Method:	Mud Rotary	Hole Diam.:	5" in.
Top Elevation:	~ 111 ft.	Easting:	~ 322,559 ft.	Drilling Company:	Western States	Rod Type:	NWJ
Vert. Datum:	NGVD29	Station:	~	Drill Rig Equipment:	CME-550 Track Rig #2	Hammer Type:	Automatic
Horiz. Datum:	OCRS-Portland	Offset:	~	Other Comments:			

SOIL DESCRIPTION	Elev. Depth (ft.)
Refer to the report text for a proper understanding of the subsurface materials and drilling methods. The stratification lines indicated below represent the approximate boundaries between soil types, and the transitions may be gradual.	
TOPSOIL	111.0 / 0.5
Loose, brown, *Sandy Silt (ML)*; moist; fine to medium sand; nonplastic; trace organics; micaceous.	
Very loose, brown, *Silty Sand (SM)*; moist; fine to medium sand; nonplastic fines; trace organics; micaceous.	107.0 / 4.5
Very soft, gray, *Sandy Silt to Sandy Elastic Silt (ML/MH)*; moist; fine sand; low plasticity; trace organics; micaceous.	104.5 / 7.0
ALLUVIUM	
Very loose, gray and brown, *Silty Sand (SM)*; moist; fine to coarse sand; nonplastic to low plasticity fines; some to mostly organics; micaceous.	97.0 / 14.5
MARSH DEPOSITS	
Stiff to very stiff, gray, *Lean Clay (CL)*; moist; fine sand; medium to high plasticity; trace organics; micaceous.	88.5 / 23.0
FINE-GRAINED MISSOULA FLOOD DEPOSITS	
Very stiff, gray and brown, *Sandy Silt (ML)*; moist; fine to medium sand; low plasticity; micaceous; iron oxidation and staining.	82.5 / 29.0
Medium dense, gray, *Sandy Silt (ML)*; moist; fine to medium sand; nonplastic; micaceous.	78.5 / 33.0

Symbol: S-1, S-2, S-3, S-4, S-5, S-6, S-7, S-8, S-9, S-10, S-11

Ground Water Depth, ft.

PENETRATION RESISTANCE, N (blows/ft.)

▲ Hammer Wt. & Drop: 140 lbs / 30 inches

0 20 40 60 80 100

Depth, ft.: 5, 10, 15, 20, 25, 30

Blow counts: 6, 1, 1, 0, 1, 1, 102, 2, 15, 22

0 20 40 60 80 100

Recovery (%)

◇ % Fines (<0.075mm)

● % Water Content

Plastic Limit ⊢——⊣ Liquid Limit

CONTINUED NEXT SHEET

LEGEND

Standard Penetration Test

3" O.D. Shelby Tube

NOTES

1. Refer to KEY for explanation of symbols, codes, abbreviations, and definitions.
2. Groundwater level, if indicated above, is for the date specified and may vary.
3. Group symbol is based on visual-manual identification and selected lab testing.
4. The hole location and elevation should be considered approximate.

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LOG OF BORING B-1

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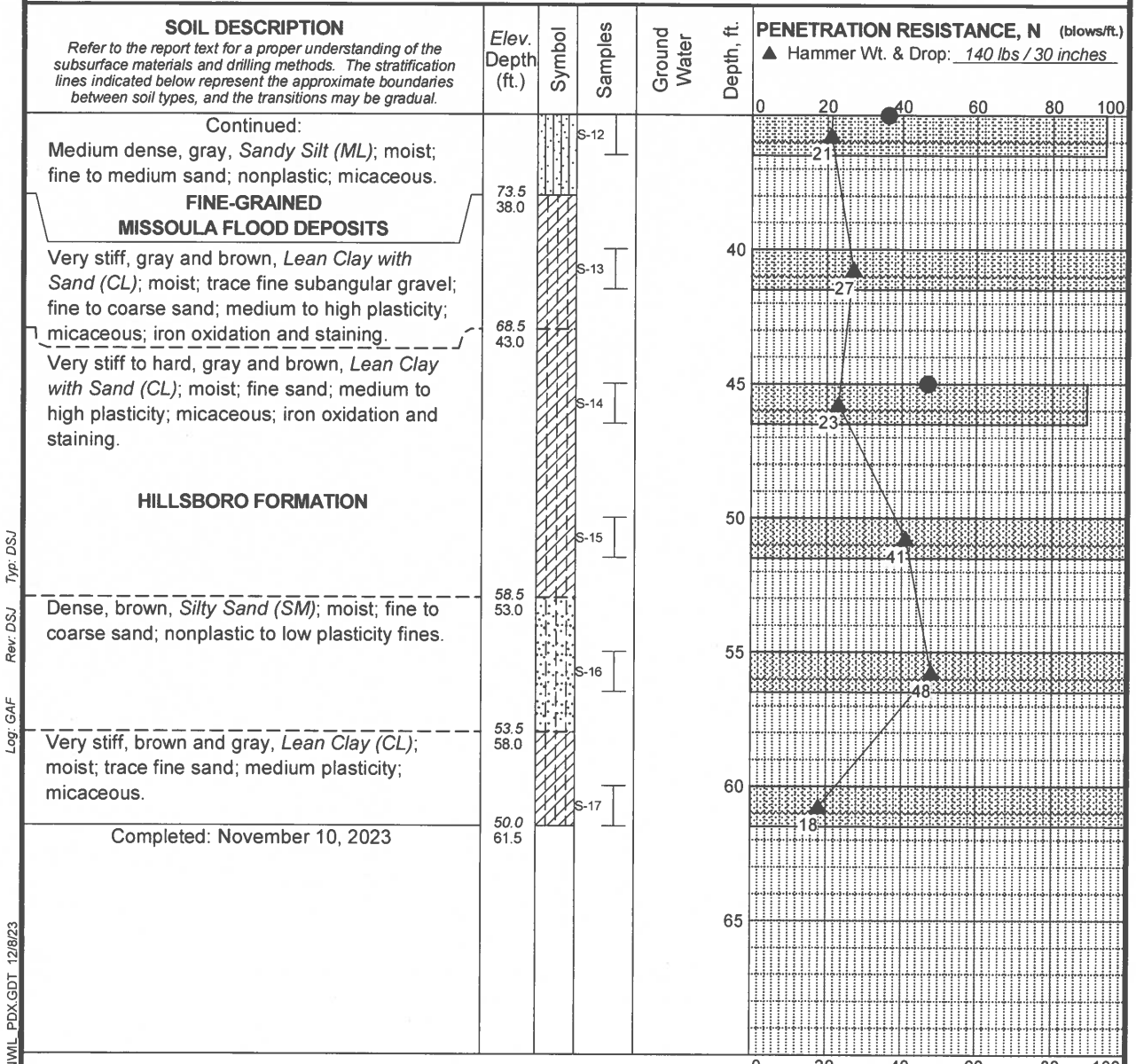
FIG. A2
Sheet 1 of 2

REV 2

MASTER_LOG_E_112406.GPJ SW2013LIBRARYPDX.GLB SHANWL_PDX.GDT 12/8/23 Log: GAF Rev: DSJ Typ: DSJ

Total Depth:	61.5 ft.	Northing:	~ 125,554 ft.	Drilling Method:	Mud Rotary	Hole Diam.:	5" in.
Top Elevation:	~ 111 ft.	Easting:	~ 322,559 ft.	Drilling Company:	Western States	Rod Type:	NWJ
Vert. Datum:	NGVD29	Station:	~	Drill Rig Equipment:	CME-550 Track Rig #2	Hammer Type:	Automatic
Horiz. Datum:	OCRS-Portland	Offset:	~	Other Comments:			

SOIL DESCRIPTION	Elev. Depth (ft.)
Refer to the report text for a proper understanding of the subsurface materials and drilling methods. The stratification lines indicated below represent the approximate boundaries between soil types, and the transitions may be gradual.	
Continued: Medium dense, gray, *Sandy Silt (ML)*; moist; fine to medium sand; nonplastic; micaceous.	
FINE-GRAINED MISSOULA FLOOD DEPOSITS	73.5 38.0
Very stiff, gray and brown, *Lean Clay with Sand (CL)*; moist; trace fine subangular gravel; fine to coarse sand; medium to high plasticity; micaceous; iron oxidation and staining.	68.5 43.0
Very stiff to hard, gray and brown, *Lean Clay with Sand (CL)*; moist; fine sand; medium to high plasticity; micaceous; iron oxidation and staining.	
HILLSBORO FORMATION	
Dense, brown, *Silty Sand (SM)*; moist; fine to coarse sand; nonplastic to low plasticity fines.	58.5 53.0
Very stiff, brown and gray, *Lean Clay (CL)*; moist; trace fine sand; medium plasticity; micaceous.	53.5 58.0
Completed: November 10, 2023	50.0 61.5



LEGEND

- Standard Penetration Test
- 3" O.D. Shelby Tube

NOTES

1. Refer to KEY for explanation of symbols, codes, abbreviations, and definitions.
2. Groundwater level, if indicated above, is for the date specified and may vary.
3. Group symbol is based on visual-manual identification and selected lab testing.
4. The hole location and elevation should be considered approximate.

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LOG OF BORING B-1

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FIG. A2
Sheet 2 of 2

REV 2

MASTER_LOG_E_112406.GPJ SW2013LIBRARYPDX.GLB SHANWL_PDX.GDT 12/8/23 Log: GAF Rev: DSJ Typ: DSJ

APPENDIX B: LABORATORY TEST RESULTS

Appendix B

Laboratory Test Results

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B.2.1 Moisture (Natural Water) Content....1
B.2.2 Atterberg Limits....1
B.2.3 Particle-Size Analyses....2

Figures

Figure B1: Atterberg Limits Results
Figure B2: Grain Size Distribution Results

APPENDIX B: LABORATORY TESTING RESULTS

B.1 GENERAL

Soil samples obtained during the field explorations were described and identified in the field in general accordance with the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), ASTM D2488. The specific terminology used is presented on Appendix A, Figure A1. The samples were reviewed in the Shannon & Wilson laboratory. The physical characteristics of the samples were noted, and the field descriptions and identifications were modified where necessary in accordance with terminology presented in Appendix A, Figure A1. Representative samples were selected for various laboratory tests. We refined our visual-manual soil descriptions and identifications based on the results of the laboratory tests, using elements of the Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System), ASTM D2487. The refined descriptions and identifications were then incorporated into the Log of Boring, presented in Appendix A. Note that ASTM D2487 was not followed in full because it requires that a suite of tests be performed to fully classify a single sample.

The soil testing program included moisture content, particle size analyses, and Atterberg limits. Laboratory testing was performed by Shannon & Wilson. All test procedures were performed in accordance with applicable ASTM International standards. Test procedures are summarized in the following paragraphs.

B.2 SOIL TESTING

B.2.1 Moisture (Natural Water) Content

Natural moisture content determinations were performed in accordance with ASTM D2216, on selected soil samples. The natural moisture content is a measure of the amount of moisture in the soil at the time of exploration. It is defined as the ratio of the weight of water to the dry weight of the soil, expressed as a percentage. The results of moisture content determinations are presented on the Boring Log in Appendix A.

B.2.2 Atterberg Limits

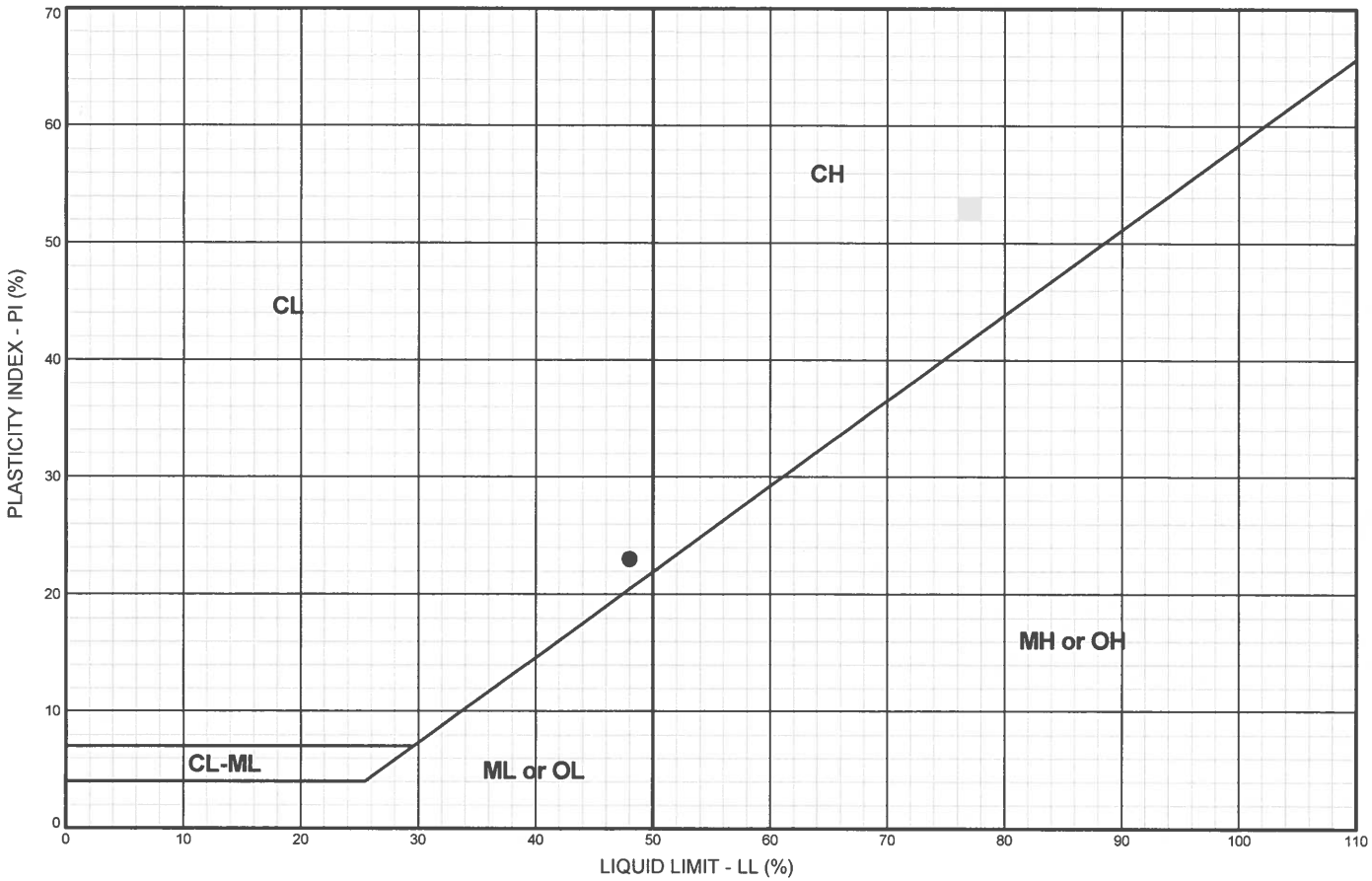
Atterberg limits were determined for select samples in accordance with ASTM D4318. This analysis yields index parameters of the soil that are useful in soil identification, as well as in a number of analyses, including liquefaction analysis. An Atterberg limits test determines a soil's liquid limit (LL) and plastic limit (PL). These are the maximum and minimum moisture contents at which the soil exhibits plastic behavior. A soil's plasticity index (PI) can be determined by subtracting PL from LL. The LL, PL, and PI of tested samples are

presented on Figure B1, Atterberg Limits Results. The results are also presented on the Drill Logs in Appendix A.

For the purposes of soil description, the ODOT Soil and Rock Classification Manual (1987) uses the term nonplastic to refer to soils with a PI less than 3, low plasticity for soils with a PI range of 3 to 15, medium plasticity for soils with a PI range of 15 to 30, and high plasticity for soils with a PI greater than 30.

B.2.3 Particle-Size Analyses

Particle-size analyses was conducted on a single sample to determine the grain-size distributions. Grain size distributions were determined in accordance with ASTM D6913 and D1140 as applicable. A wet sieve analysis was performed to determine the percentage (by weight) of each sample passing the No. 200 (0.075 mm) sieve. The material retained on the No. 200 sieve was then shaken through a series of sieves to determine the distribution of the plus No. 200 fraction. Hydrometer testing (ASTM D422) was used to identify the amount of silt and clay present. Results of all particle-size analyses are presented on Figure B1, Grain Size Distribution. The resulting percent fine-grained constituents are also presented on the Logs of Borings in Appendix A, and in Figure B2, Grain Size Distribution.



NOTES

1) Atterberg limits tests were performed in general accordance with ASTM D4318 unless otherwise noted in the report.

2) Group Name and Group Symbol are in accordance with ASTM D2488 and are refined in accordance with ASTM D2487 where appropriate laboratory tests are performed.

3) Plasticity adjectives used in sample descriptions correspond to plasticity index as follows:
- Nonplastic (NP) (< 4%)
- Low Plasticity (4 to 10%)
- Medium Plasticity (10 to 20%)
- High Plasticity (> 20%)

BORING AND SAMPLE NO.	DEPTH (feet)	GROUP SYMBOL[2]	GROUP NAME[2]	LL %	PL %	PI %[3]	NAT. W.C. %	FINES %
● B-1, S-10	26.5			48	25	23	35	90

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Tigard, Oregon

ATTERBERG LIMITS RESULTS

December 2023 112406

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FIG. B1

FIG. B1

ATT_MAIN 112406.GPJ SHAN_WIL.GDT 12/20/23

NOTES:
1) Sieve analyses were performed in general accordance with ASTM D6913, sieve with hydrometer analyses were performed in general accordance with ASTM D422, and amount finer than #200 sieve analyses were performed in general accordance with ASTM D1140 unless otherwise noted in the report.
2) Group Name and Group Symbol are in accordance with ASTM D2488 and are refined in accordance with ASTM D2487 where appropriate laboratory tests are performed.

BORING AND SAMPLE NO.	DEPTH (feet)	GROUP SYMBOL[2]	GROUP NAME[2]	GRAVEL %	SAND %	FINES %	NAT. W.C. %	DRY DENSITY PCF
● B-1, S-6	15.0			-	-	29	97	
■ B-1, S-10	26.5			-	-	90	35	

Cook Park Accessible Boat Launch
Tigard, Oregon

GRAIN SIZE DISTRIBUTION

December 2023 112406

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. B2

FIG. B2

IMPORTANT INFORMATION

Important Information

About Your Geotechnical/Environmental Report

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors that were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary, because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports, and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the Geoprofessional Business Association (https://www.geoprofessional.org)

DRAFT

TECHNICAL MEMORANDUM

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Name: Paige Miller, PE, Century West Project Manager
Date: 15 December 2023
From: Chris Bahner, PE, D.WRE
Reviewed by: Hans Hadley, PE, CFM, Vice President
Subject: No-Rise Analysis and Certification for Cook Park Accessible Dock, Tigard, Oregon

Introduction

The City of Tigard (City), Oregon, plans to construct an adaptive kayak and canoe launch in Cook Park on the Tualatin River. **Figure 1** shows the project site. All figures referenced in the text are provided in **Appendix A**. According to Federal Emergency Management Agency (FEMA) Floodway Panel 41067C0544E, the project will be located within the regulated floodway of the Tualatin River. **Figure 2** shows the effective FEMA flood hazard zones in the vicinity of the project site. A FEMA Engineering No-Rise Analysis is required to demonstrate that the project will meet the City's ordinance 18.510.070 B.2 and B.4. Therefore, a No-Rise analysis was conducted for the proposed project to ensure that it will not cause an increase to the regulatory water surface elevations associated with the 1-percent annual chance flood event and the regulatory floodway elevations for the Tualatin River. Additionally, scour depths were estimated for the proposed dock to support the foundation design. **Appendix B** contains the conceptual figures of the proposed modifications to Cook Park for the US Army Corps of Engineers (USACE) permit application.

Information pertinent to the site includes the following:

Identifier:	Cook Park Accessible River Access and Boarding Dock Replacement
Property:	Cook Park
Flooding Source:	Tualatin River
Community:	City of Tigard, Oregon
Community No.:	410276
FIRM Panel:	41067C0544E

Unless otherwise stated, all elevations within this report are referenced to the North American Vertical Datum of 1988 (NAVD88).

Hydrology

The hydrology for this study is based on the hydrology that was used in the hydraulic model developed for the effective Flood Insurance Study (FIS) and is summarized in Table 1.

Table 1 – Tualatin Hydrology at Project Site

River Station and FEMA Cross Section Letter		Discharge (cfs)			
		10% (10-yr)	2% (50-yr)	1% (100-yr)	0.2% (500-yr)
10048547	L	16,000	26,900	33,500	48,400
10055226	O	15,400	25,900	32,400	46,700

No-Rise Analysis Approach

Procedures set forth by FEMA Region 10 call for a multi-step analysis approach for evaluating a proposed project for No-Rise certification (FEMA 2013). The steps are as follows:

1. Current Effective Model: Obtain the effective model upon which the current effective BFE and floodway extents are based. FEMA archives effective models.
2. Duplicate Effective Model (DEM): Use the Current Effective Model input data to create a DEM to ensure that the results recorded in the effective FIS can be reproduced within an acceptable tolerance.
3. Corrected Effective Model (CEM): Modify the DEM to correct any errors and incorporate the most recent topographic information.
4. Existing Conditions Model (ECM): Revise the CEM to reflect any modifications that have occurred within the floodplain since the date of the original analysis but prior to the proposed project. This model should be the best depiction of existing conditions.
5. Proposed Conditions Model (PCM): Develop the PCM to reflect conditions following the completion of the project and compare it with the ECM to determine the project's effects (if any). The direct comparison of water surface elevations between the results of these two models is the basis of a No-Rise analysis.

Effective Model

According to the FIS for Washington County (FEMA 1999), the effective hydraulic modeling for Tualatin River is a HEC-RAS model developed by Pacific Water Resources, Inc. in 2005. This model was obtained from FEMA. The effective modeling for the project reach is a HEC-RAS model (Version 3.11) developed by Pacific Water Resources, Inc. in 2005 for FEMA and Clean Water Services of Washington County, Oregon. WEST obtained the model from the FEMA library for another project in the area. The model includes FEMA lettered cross sections A through AZ and a total of 151 cross sections. Elevation data in the effective model are referenced to the National Geodetic Vertical Datum of 1929 (NGVD29). Discharges and downstream

boundary conditions are based on published values in the effective FIS. The limits of floodway encroachments were extracted from the 'S_FLD_HAZ_LN' GIS data layer in the DFIRM. All remaining hydraulic parameters in the effective model (Manning's roughness, flow-paths, etc.) were estimated based on data listed in the FIS, publicly available aerial imagery, and engineering judgment.

Duplicate Effective Model (DEM)

The DEM was created from the effective model for the reach between cross section L and cross section N. The model was developed using the USACE software HEC-RAS (Hydraulic Engineering Center – River Analysis System) version 6.4.1 (USACE 2023). The only modification made to the model was converting the elevation data to NAVD88. The conversion factor from NGVD29 to NAVD88 is +3.52 (FEMA, 2018). Results from the DEM were compared with water surface elevations published in the floodway data table and flood profiles in the effective FIS. The DEM results are within the minimum agreement tolerance of 0.1 feet, so it is considered sufficient for conducting a No-Rise analysis. **Table 1** presents the comparison of DEM and FIS effective model water surface elevations.

Table 2 - Duplicate Effective Model vs. Effective FIS Model

River Station and FEMA Cross Section Letter		Regulatory Water Surface Elevation (ft)			With Floodway Water Surface Elevation (ft)		
		FIS Effective Model	DEM	Difference (DEM - FIS)	FIS Effective Model	DEM	Difference (FIS - DEM)
10048547	L	130.82	130.82	0.00	131.80	131.80	0.00
10051159	M	131.06	131.05	-0.01	132.00	131.99	-0.01
10053386	N	131.16	131.16	0.00	132.08	132.08	0.00

Corrected Effective Model (CEM)

The DEM was modified to create the CEM. The modifications consisted of adding the existing pier to cross section 9.792 and adding nine cross sections within the subject property, four located between FEMA cross section L and M and five located between FEMA cross sections M and N. For clarity, the river stations used for the CEM cross sections were changed from an unknown system that was used in the effective model to river miles. **Figure 3** shows the locations and extents of the added cross sections. The limits of floodway encroachments were confirmed to match those depicted in the S_FLD_HAZ_LN layer in the County's DFIRM database available from FEMA. These limits were modified to ensure the surcharge is less than the maximum 1-foot increase allowed by FEMA. Both the original and revised limits were considered in the No-Rise analysis. The CEM is the best representation of existing conditions in the study reach and will be used as the basis for determining impacts to the water surface profile, if any, caused by the proposed project. **Table 3** shows the comparison of the water surface elevations computed for the CEM and the DEM.

Table 3 - Corrected Effective Model vs. Duplicate Effective Model

River Station (RM) and FEMA Cross Section Letter[1]		Regulatory Water Surface Elevation (ft)			With Floodway Water Surface Elevation (ft)[2]		
		DEM	CEM	Difference (CEM - DEM)	DEM	CEM	Difference (CEM - DEM)
9.273	L	130.82	130.82	0.00	131.80	131.80	0.00
9.723	--	131.03	131.08	0.05	131.62	132.03	0.06
9.731	--	131.04	131.09	0.05	131.62	132.03	0.05
9.738	BU	131.04	131.09	0.05	131.62	132.03	0.05
9.749	BV	131.04	131.09	0.05	131.62	132.03	0.05
9.762	M	131.05	131.1	0.05	131.99	132.04	0.05
9.777	--	131.05	131.11	0.06	131.92	132.05	0.06
9.787	--	131.06	131.11	0.05	131.92	132.05	0.05
9.792	--	131.06	131.11	0.05	131.92	132.06	0.06
9.799	--	131.06	131.12	0.06	131.92	132.06	0.06
9.817	--	131.06	131.12	0.06	131.92	132.06	0.06
10.189	N	131.16	131.32	0.16	132.08	132.23	0.15

Notes:

(1) "—" indicates unlettered FEMA cross section.

(2) Floodway results are based on the modified floodway encroachments to ensure the surcharge associated with the floodway is less than 1 foot.

As shown in the table, the CEM water surface elevations are about 0.05 to 0.16 feet higher than the DEM water surface elevations and about 0.05 to 0.15 for the floodway elevations. The floodway surcharge, which is not shown in the table, is still less than the maximum 1-foot increase allowed by FEMA.

Existing Conditions Model (ECM)

The ECM is the same as the CEM.

Proposed Conditions Model (PCM)

The ECM was modified to create the PCM by modifying the cross section geometry to represent the proposed grading and adding the piles for the proposed access ramp. Water surface elevations predicted by the ECM and PCM models were compared to determine if the floodway modifications would result in a rise in water surface elevations for either the base flood or the floodway. **Table 4** presents the computed water surface elevations for the ECM and PCM and the calculated differences. As seen in the table, the proposed floodway modifications will not result in a rise in water surface elevations along the Tualatin River for either the base flood or the floodway.

Table 4 – Proposed Conditions Model vs. Existing Conditions Model

River Station (RM) and FEMA Cross Section Letter[1]		Regulatory Water Surface Elevation (ft)			With Floodway Water Surface Elevation (ft)[2]		
		ECM	PCM	Difference (PCM - ECM)	ECM	PCM	Difference (PCM - ECM)
9.273	L	130.82	130.82	0.00	131.80	131.80	0.00
9.723	--	131.08	131.08	0.00	132.03	132.03	0.00
9.731	--	131.09	131.09	0.00	132.03	132.03	0.00
9.738	BU	131.09	131.09	0.00	132.04	132.04	0.00
9.749	BV	131.09	131.09	0.00	132.03	132.03	0.00
9.762	M	131.10	131.10	0.00	132.05	132.05	0.00
9.777	--	131.11	131.11	0.00	132.05	132.05	0.00
9.787	--	131.11	131.11	0.00	132.06	132.05	-0.01
9.792	--	131.11	131.11	0.00	132.06	132.06	0.00
9.799	--	131.12	131.12	0.00	132.06	132.06	0.00
9.817	--	131.12	131.12	0.00	132.06	132.06	0.00
10.189	N	131.32	131.32	0.00	132.23	132.23	0.00

Notes:

(1) "—" indicates unlettered FEMA cross section.

(2) Floodway results are based on the modified floodway to ensure the surcharge associated with the floodway is less than 1 foot.

Scour Analysis

The proposed structure will have three sets of piles that support the dock (**Figure 4** including two 12-inch-diameter piles on the northwest side of the proposed gangway (identified as "P1" in this memorandum), three 18-inch-diameter piles on the northwest side of the proposed dock (identified as "P2" in this memorandum), and one 18-inch-diameter on the southeast side of the proposed dock. Contraction and pier scour computations were completed to estimate the total scour depth at each set of piles for the 1- and 0.2-percent annual chance flood events. Contraction and pier scour were estimated using the methodology documented in HEC-18, *Evaluating Scour at Bridges* (FHWA, 2012).

Laursen's equation (FHWA, 2012) was used to determine if live-bed or clear-water contraction scour would occur for the 1- and 0.2-percent annual chance flood events:

$$V_c = 11.17(y_1)^{\frac{1}{6}}(D_{50})^{\frac{1}{3}}$$

where y_1 is the depth of the approach channel section (XS 9.762), calculated to be 33.4 feet for the 1-percent annual chance flood event and 37.1 feet for the 0.2-percent annual chance flood event; D_{50} is the median diameter of the bed material, estimated to be approximately 0.125 mm; and V_c, is the critical velocity for incipient motion of bed material in the approach section, calculated to be about 1.5 ft/s for both flood events. Since the approach section velocity of about 2 ft/s for both flood events is greater than the respective critical velocity, Laursen's live-bed scour equation (FHWA, 2012) was used to compute the contraction scour:

$$\frac{y_2}{y_1} = \left(\frac{Q_2}{Q_1}\right)^{\frac{6}{7}} \left(\frac{W_1}{W_2}\right)^{k_1}$$

where y_2 is the calculated average observed depth in the contracted section (XS 9.738); Q_1 and Q_2 are the flows in the upstream section that is transporting sediment and in the contracted section; W_1 is the top width of the upstream main channel; W_2 is the top width in the contracted section; and k_1 is an exponent, 0.64, based on the ratio of the bed shear velocity at the approach section to the settling velocity of the bed material. The contraction scour, $y_s = y_2 – y_0$, was computed to be 0.0 feet for both flood events. **Table 5** summarizes parameters used for computing contraction scour.

Table 5 – Contraction Scour Parameters

Flood Event	Y_1 (ft)	Vc (ft/sec)	Y_2 (ft)	Y_0 (ft)	Q_1 (cfs)	Q_2 (cfs)	W_1 (ft)	W_2 (ft)	Ys (ft)
1% annual chance	33.4	1.5	33.4	30.7	11,246	8,916	168	145	0.0
0.2% annual chance	37.1	1.5	37.1	35.4	11,506	9,522	168	145	0.0

Pier scour at the piles was estimated using the Colorado State University (CSU) equation (FHWA, 2012):

$$y_s = 2.0 K_1 K_2 K_3 \left(\frac{a}{y_1}\right)^{0.65} \left(\frac{V_1}{\sqrt{g y_1}}\right)^{0.43} y_1$$

where K_1 is a correction factor for pier shape, 1 for circular piers; K_2 is a correction factor for angle of attack of flow, 1 for circular piers; K_3 is a correction factor for the bed condition, 1.1 for plane bed; a is the projected pier width, varies; y_1 is the depth of flow just upstream of the pier, ft; V_1 is the approach velocity, ft/s; and g is the gravitational force, 32.2 ft/s^2. **Table 6** provides the parameters and estimated scour depth at each set of piles for the 1- and 0.2-percent annual chance flood events.

Table 6 – Pier Scour Parameters

Flood Event	Pile Group	a (ft)	K_1	K_2	K_3	y_1 (ft)	V_1 (ft)	Ys (ft)
1% annual chance	P1	1.00	1	1	1.1	18.0	1.26	1.7
	P2	1.33	1	1	1.1	24.5	1.95	2.6
	P3	1.33	1	1	1.1	37.0	2.65	3.1
0.2% annual chance	P1	1.00	1	1	1.1	21.7	1.37	1.8
	P2	1.33	1	1	1.1	28.2	2.04	2.7
	P3	1.33	1	1	1.1	40.7	2.70	3.2

The total scour is equal to the sum of the contraction scour and pier scour. The total scour elevation calculation assumes that the channel migrates to Piles P2 and P3; therefore, the existing channel thalweg

elevation for the cross section located upstream of the proposed structure was used to calculate the score elevation. **Table 7** summarizes the total scour at the proposed structure.

Table 7 – Total Scour Results

Flood Event	Pile Group	Contraction Scour (ft)	Pier Scour (ft)	Total Scour (ft)	Thalweg Elevation (ft)	Total Scour Elevation (ft)
1% annual chance	P1	0.0	1.7	1.7	115.0	113.3
	P2	0.0	2.6	2.6	92.5	89.9
	P3	0.0	3.1	3.1	92.5	89.4
0.2% annual chance	P1	0.0	1.8	1.8	115.0	113.2
	P2	0.0	2.7	2.7	92.5	89.8
	P3	0.0	3.2	3.2	92.5	89.3

Although the computed scour depth is relatively minor at P1, the calculations do not account for the local acceleration of flow and/or turbulence associated with the gangway. As a result, it is recommended that a rock revetment or similar bank protection be considered around the base of pile P1 or that the design of P1 assumes an additional 2 ft of scour depth.

Summary

Water surface elevations predicted by the ECM and PCM models were compared to determine if the proposed project would result in a rise in water surface elevations for either the base flood or the floodway. As seen in **Table 4**, the floodway modifications will not result in a rise in regulatory water surface elevations along the Tualatin River for either the base flood or the floodway. **Figure 5** provides a FEMA No-Rise Certification for the proposed project.

Scour computations were performed for the proposed pile supported dock. The total scour elevations are 113.3 feet at P1, 89.8 feet at P2, and 89.3 ft at P3. The total scour elevation at P2 and P3 accounts for potential migration of the channel thalweg to the locations of the proposed piles. As previously stated, although the computed scour depth is relatively minor at P1, the calculations do not account for the local acceleration of flow and/or turbulence associated with the gangway. As a result, it is recommended that a rock revetment or similar bank protection be considered around the base of pile P1 or that the design of P1 assumes an additional 2 ft of scour depth.

If you have any questions, please feel free to contact me by phone at (503) 485-5490 or by email at cbahner@westconsultants.com.

References

Oregon Department of Geology and Mineral Industries; *Light Detection and Ranging (LiDAR) data; OLC Metro*, Published September 2014.

Federal Emergency Management Agency, 2018 (October). *Flood Insurance Study for Washington County and Incorporated Areas, Oregon*.

Federal Highway Administration (FHWA),2012 (April). *Evaluating Scour at Bridges*, FHWA-HIF-12-003, Hydraulic Engineering Circular No. 18, Fifth Edition, Washington, D.C.

U.S. Army Corps of Engineers Hydrologic Engineering Center, 2023 (June). HEC-RAS River Analysis System, Version 6.4.1

U.S. Department of Homeland Security, Federal Emergency Management Agency, Region X; Procedures for "No-Rise" Certification for Proposed Developments in the Regulatory Floodway; October 2013

Appendix A
Figures

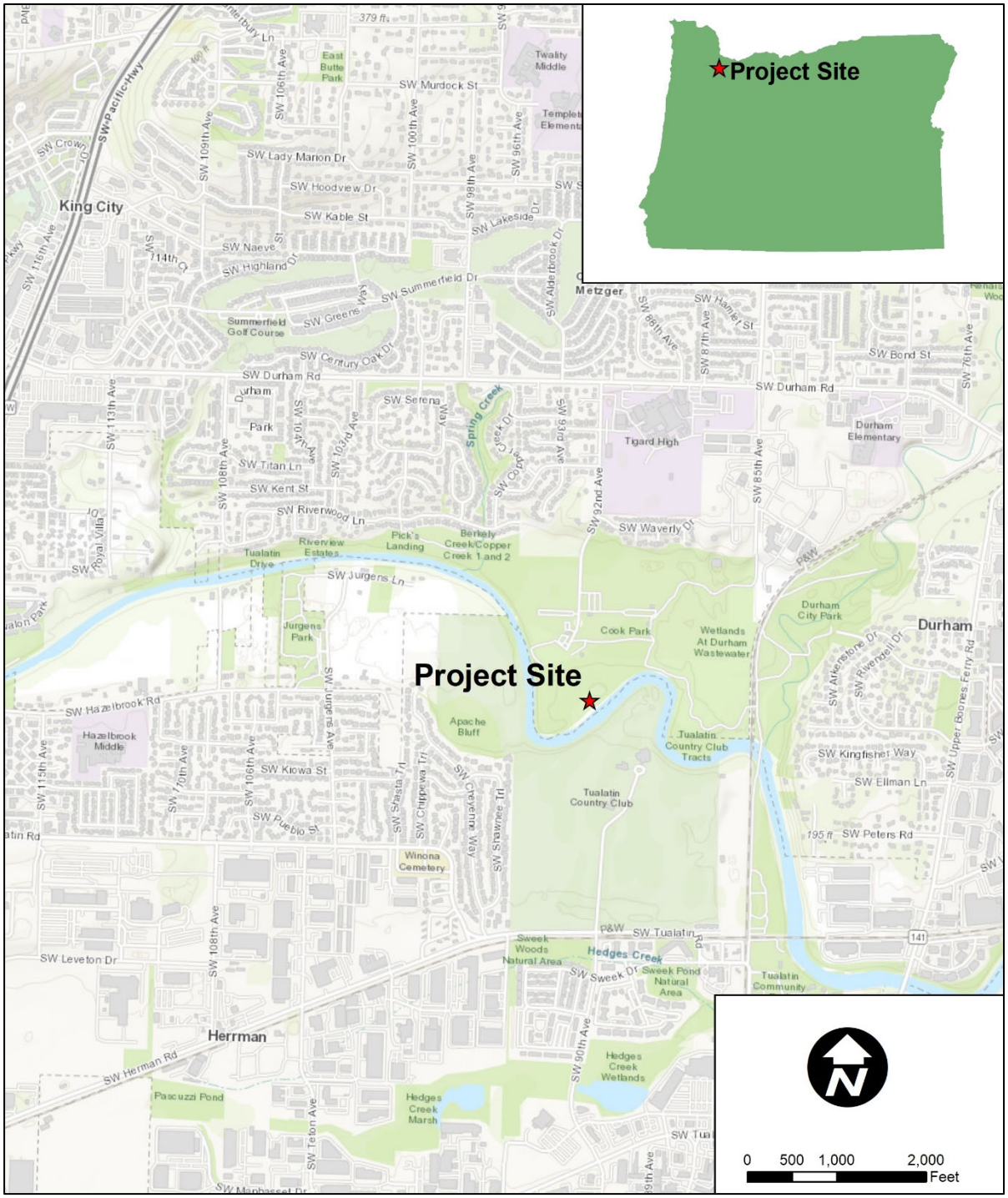


Figure 1 - Location area map

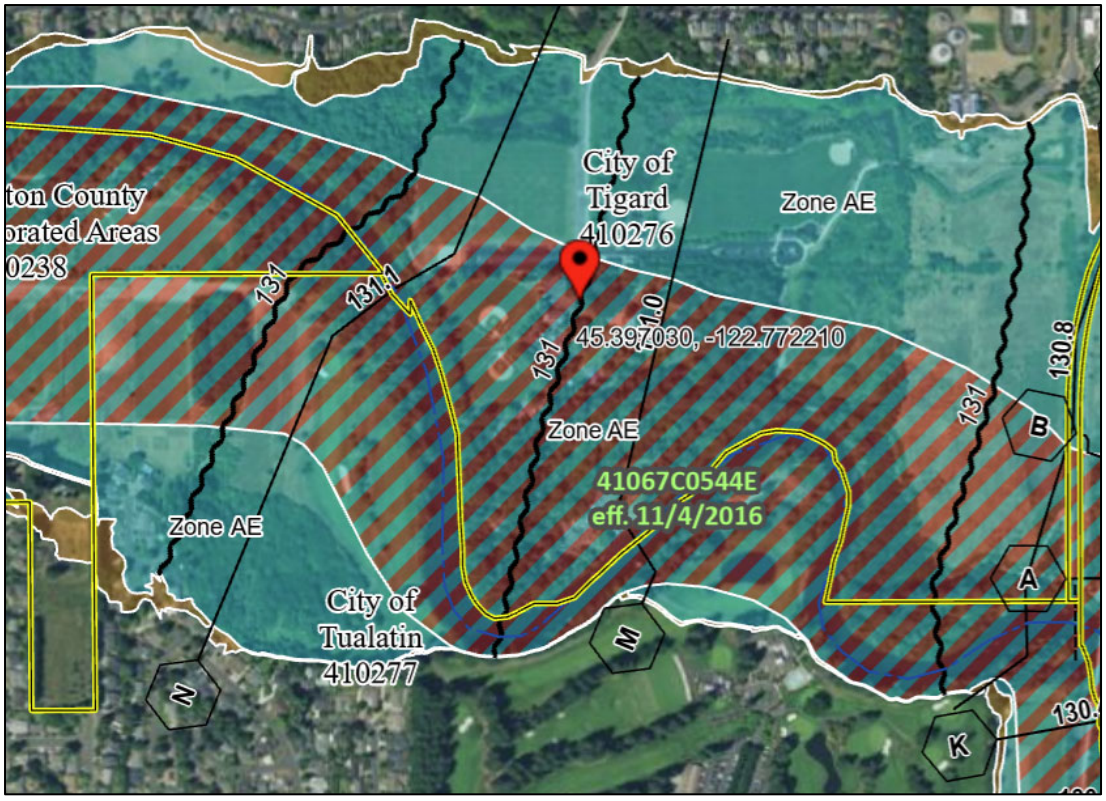


Figure 2 – FEMA flood hazard zones near project site

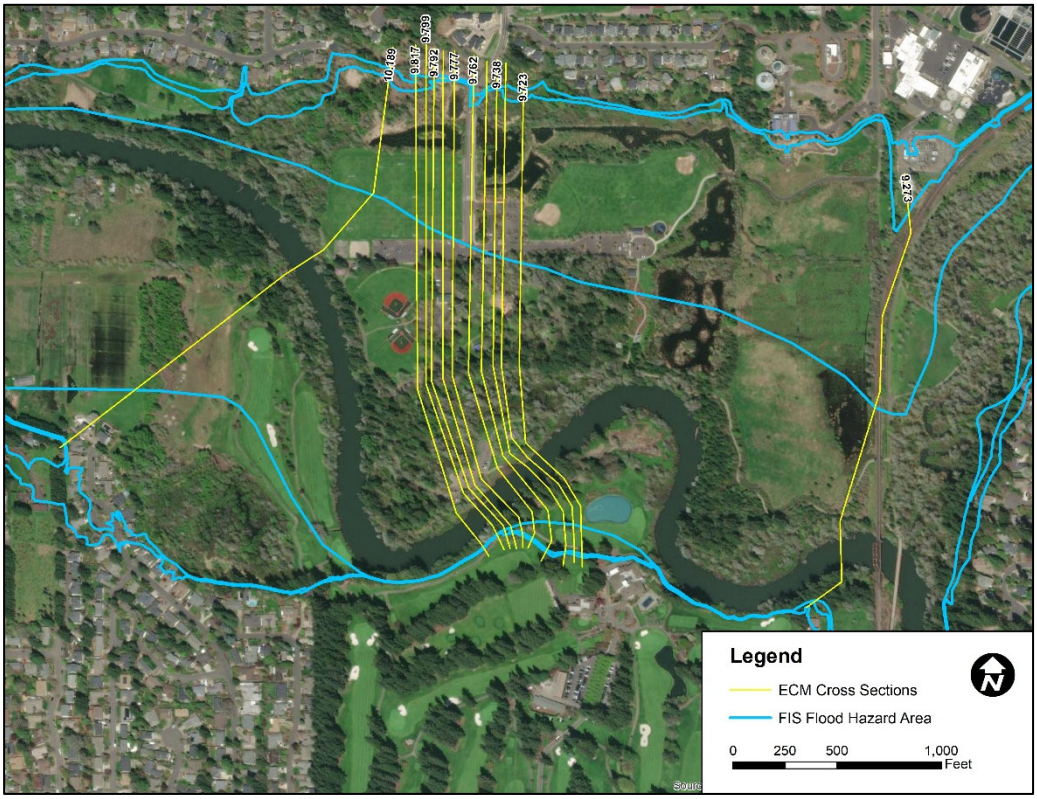


Figure 3 – ECM cross sections

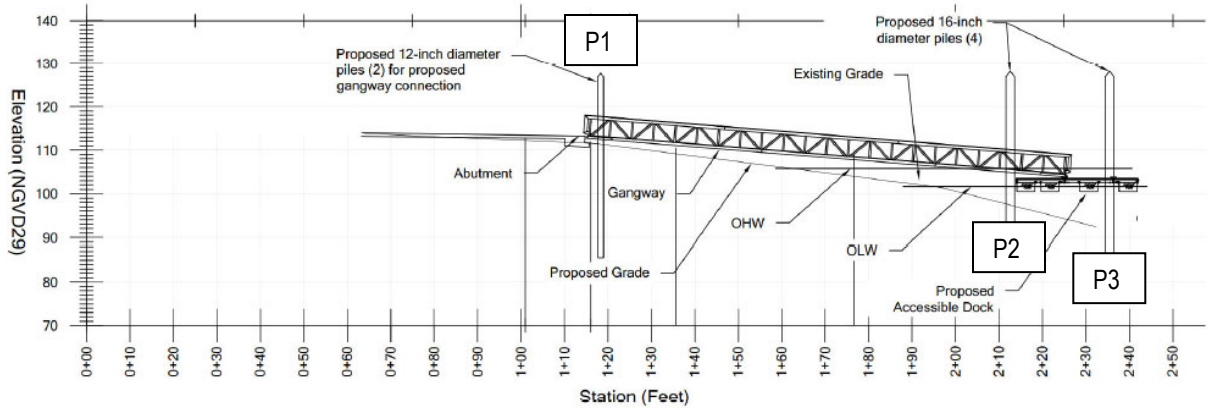


Figure 4 – Proposed dock pile identifiers for scour computations

DRAFT

Washington County
Community Name

Cook Park Accessible Dock, Portland, Oregon
Development Name

Cook Park
Lot/Property Designation

City of Tigard
Property Owner

I hereby certify that the proposed improvements at the Cook Park boat ramp within the Tualatin River floodway will not result in an increase for the regulatory floodplain or floodway elevations during the occurrence of the 1-percent annual chance (100-year) flood event.

I further certify that the data submitted herewith in support of this request are accurate to the best of my knowledge, that the analyses have been performed correctly and in accordance with sound engineering practice.

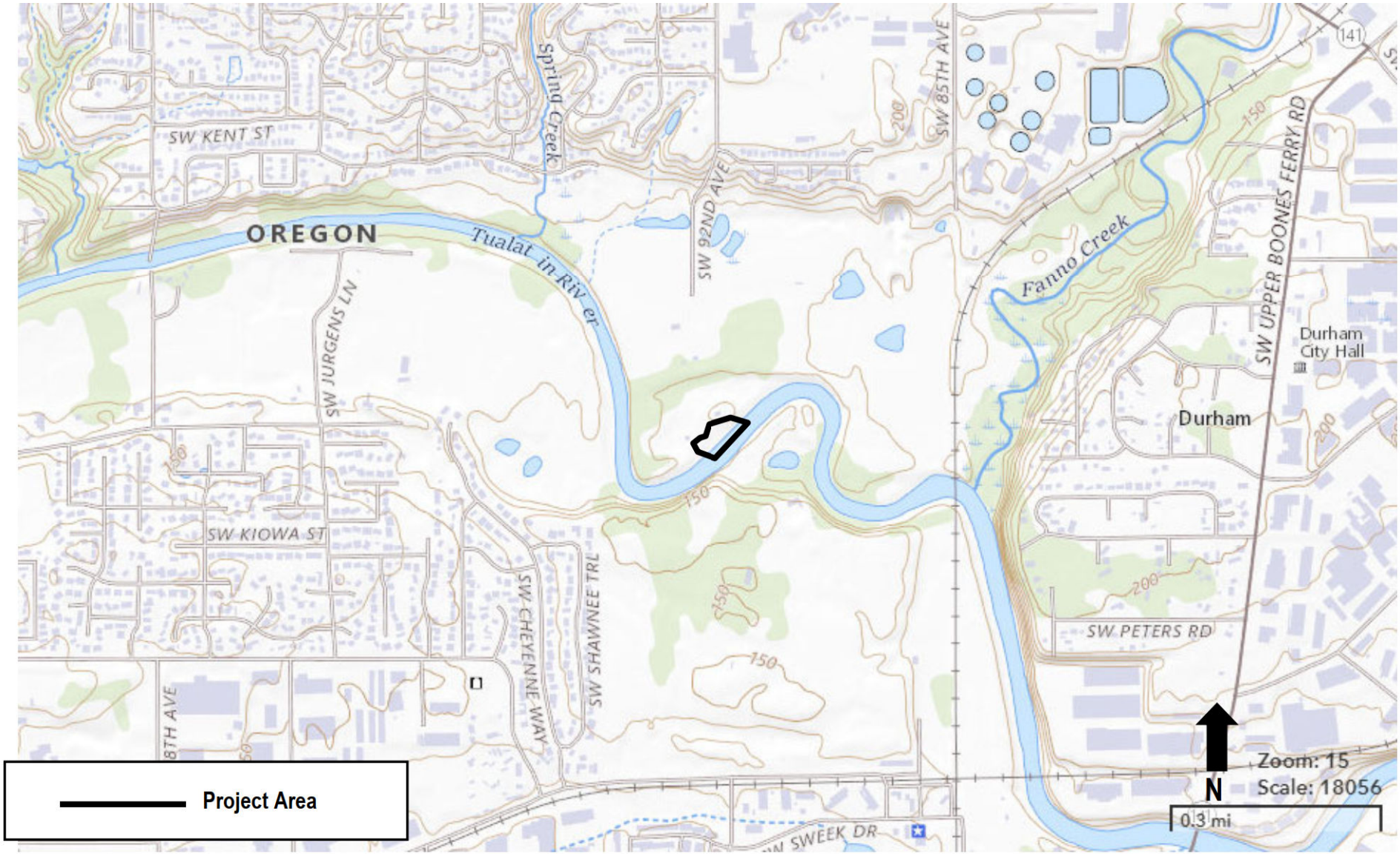
15 December 2023

Date

Figure 5 – No-Rise Certification

Appendix B

Conceptual Figures from USACE Permit Application

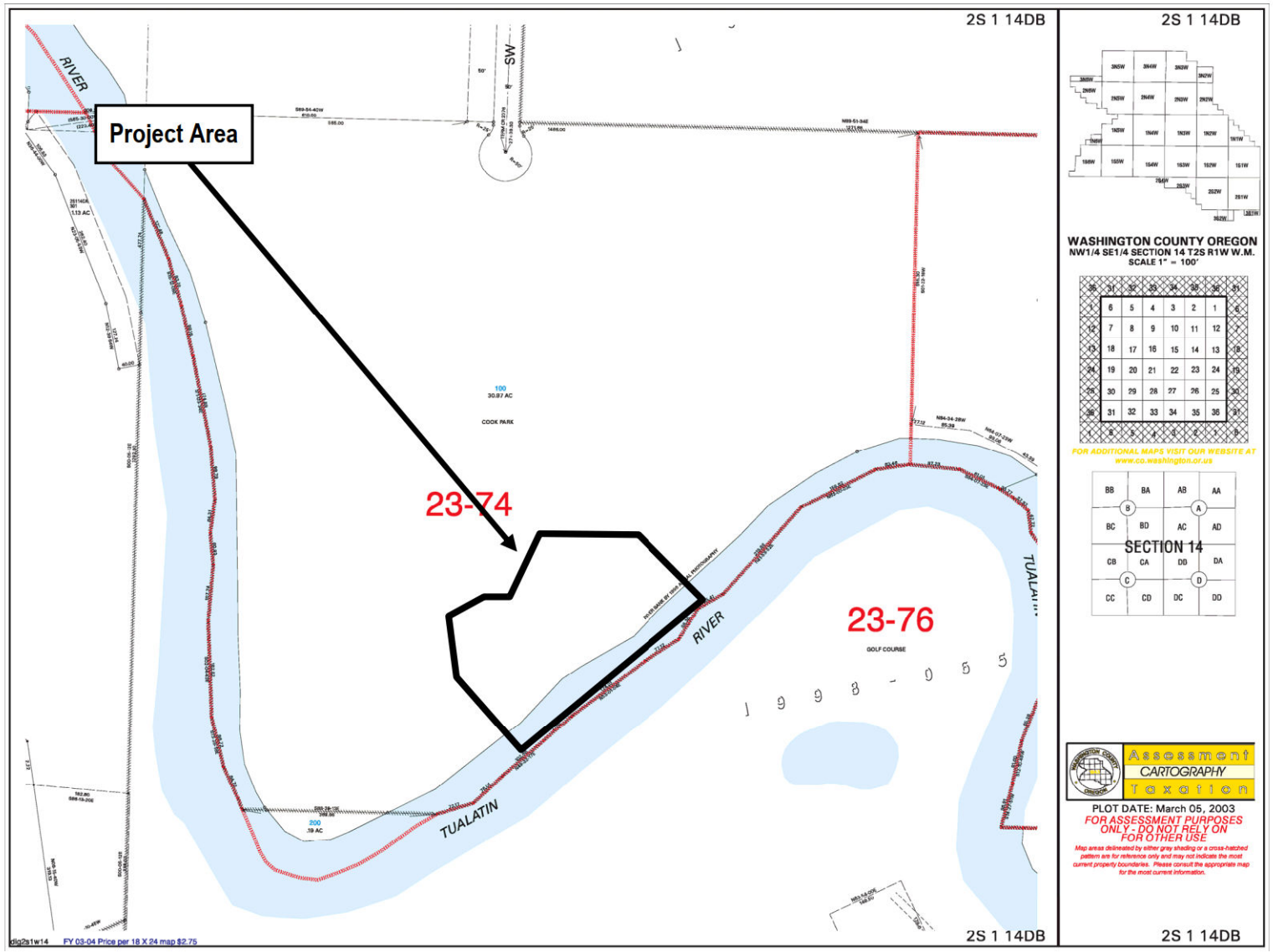


Project #7521
4/20/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
United States Geological Survey (USGS) Beaverton, Oregon 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE
1

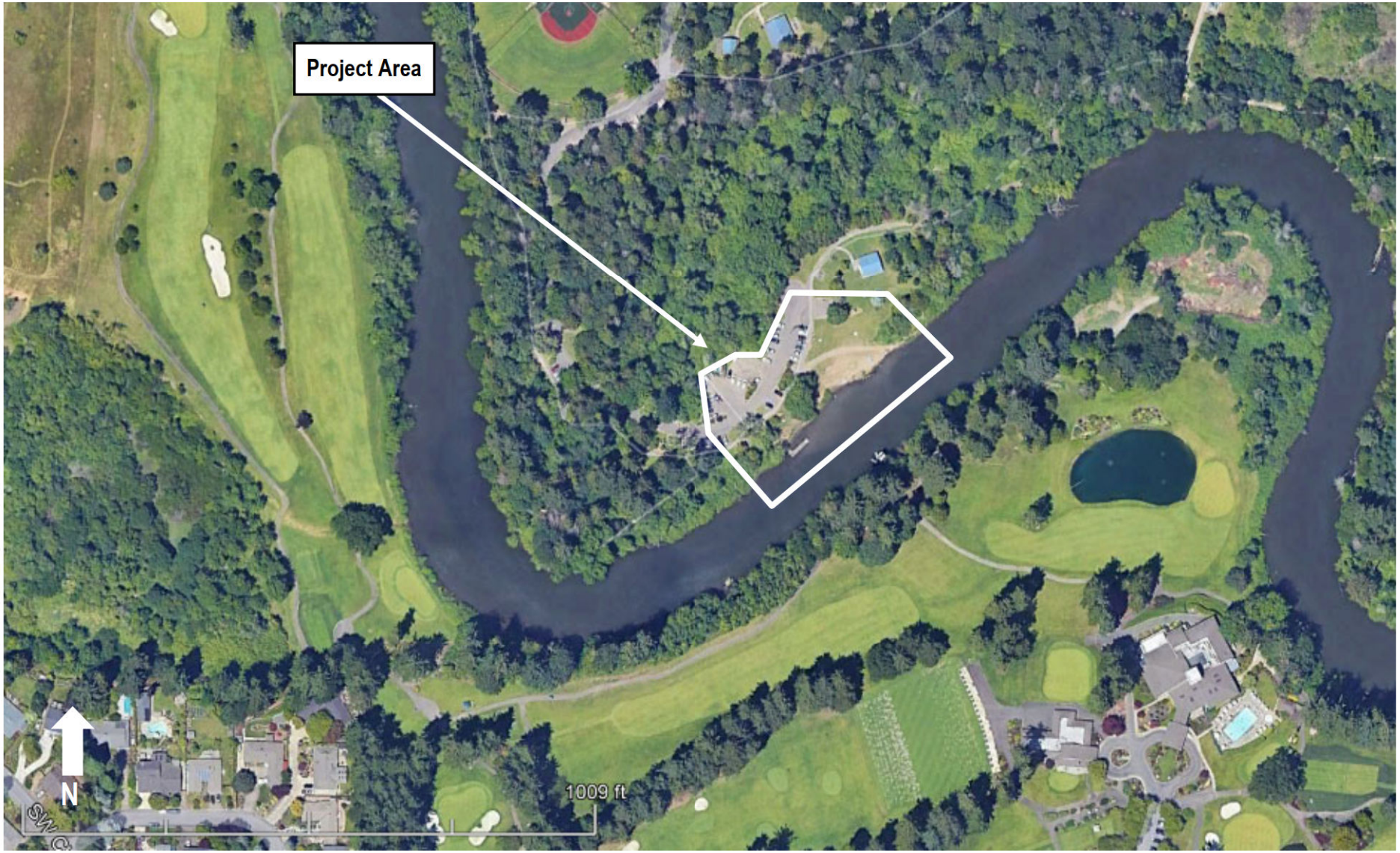


Project #7521
4/20/2023

Pacific Habitat Services, Inc.
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Wilsonville, OR 97070

Tax Lot Map
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
The Oregon Map (ormap.net)

FIGURE
2

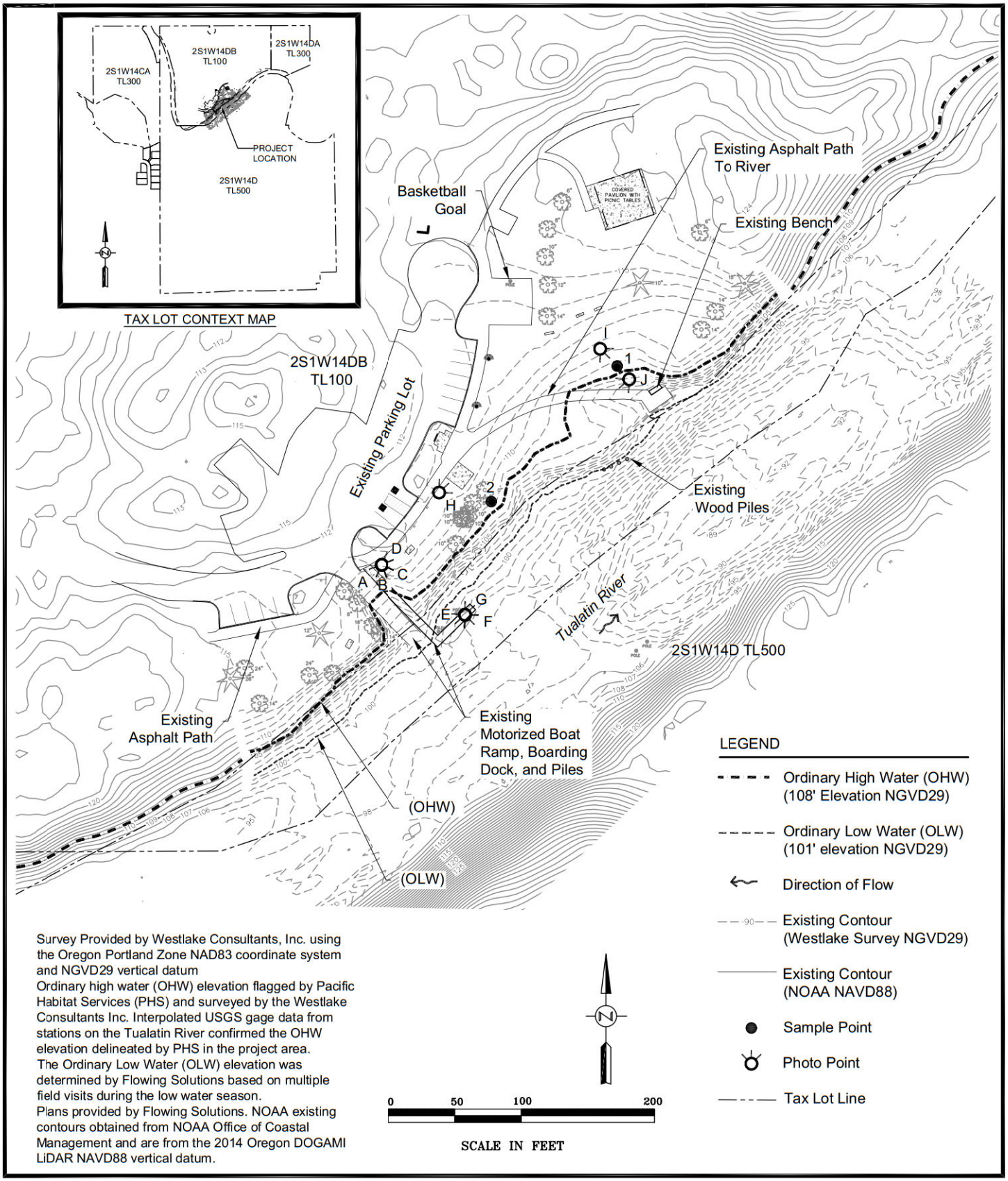


Project #7521
4/20/2023

Pacific Habitat Services, Inc.
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Aerial Photo (July, 2022)
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
GoogleEarth, 2023

FIGURE
3



Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season.
Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

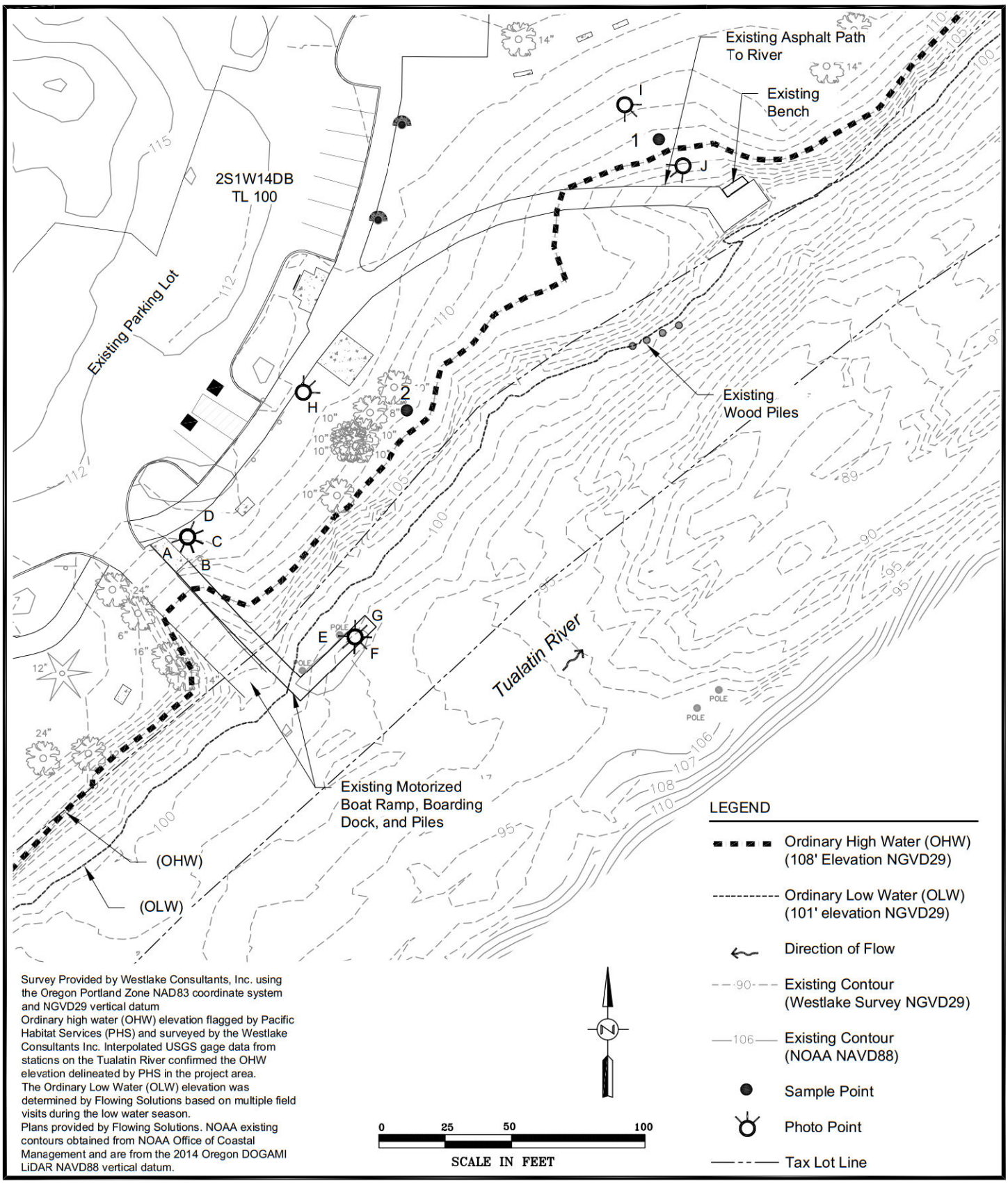
Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070
Phone: (503) 570-0800 Fax (503) 570-0855

Existing Conditions Overview
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4

8-2-2023

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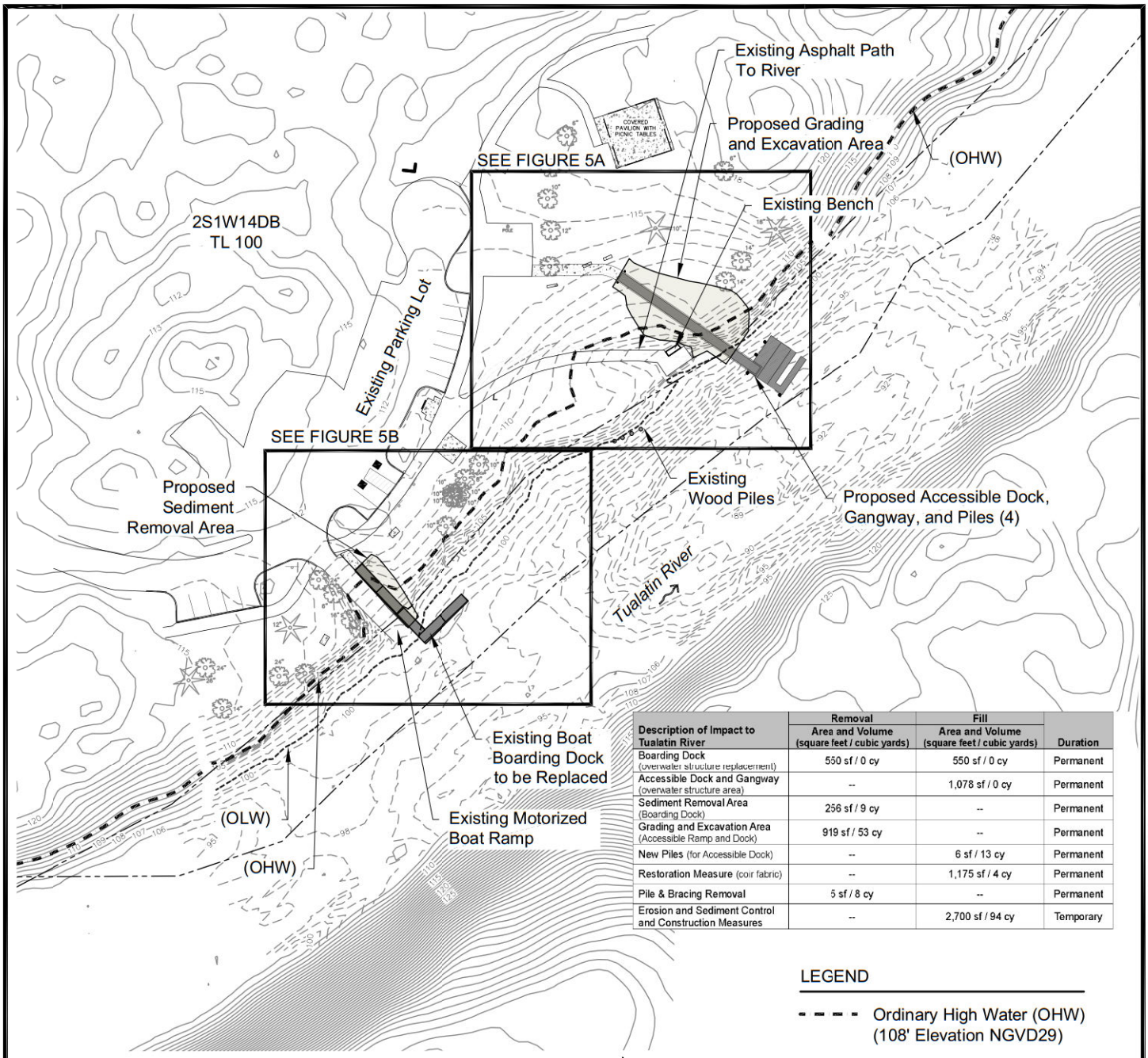
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Existing Conditions
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4A

8-2-2023



Description of Impact to Tualatin River	Removal Area and Volume (square feet / cubic yards)	Fill Area and Volume (square feet / cubic yards)	Duration
Boarding Dock (overwater structure replacement)	550 sf / 0 cy	550 sf / 0 cy	Permanent
Accessible Dock and Gangway (overwater structure area)	--	1,078 sf / 0 cy	Permanent
Sediment Removal Area (Boarding Dock)	256 sf / 9 cy	--	Permanent
Grading and Excavation Area (Accessible Ramp and Dock)	919 sf / 53 cy	--	Permanent
New Piles (for Accessible Dock)	--	6 sf / 13 cy	Permanent
Restoration Measure (coir fabric)	--	1,175 sf / 4 cy	Permanent
Pile & Bracing Removal	5 sf / 8 cy	--	Permanent
Erosion and Sediment Control and Construction Measures	--	2,700 sf / 94 cy	Temporary

LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
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Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

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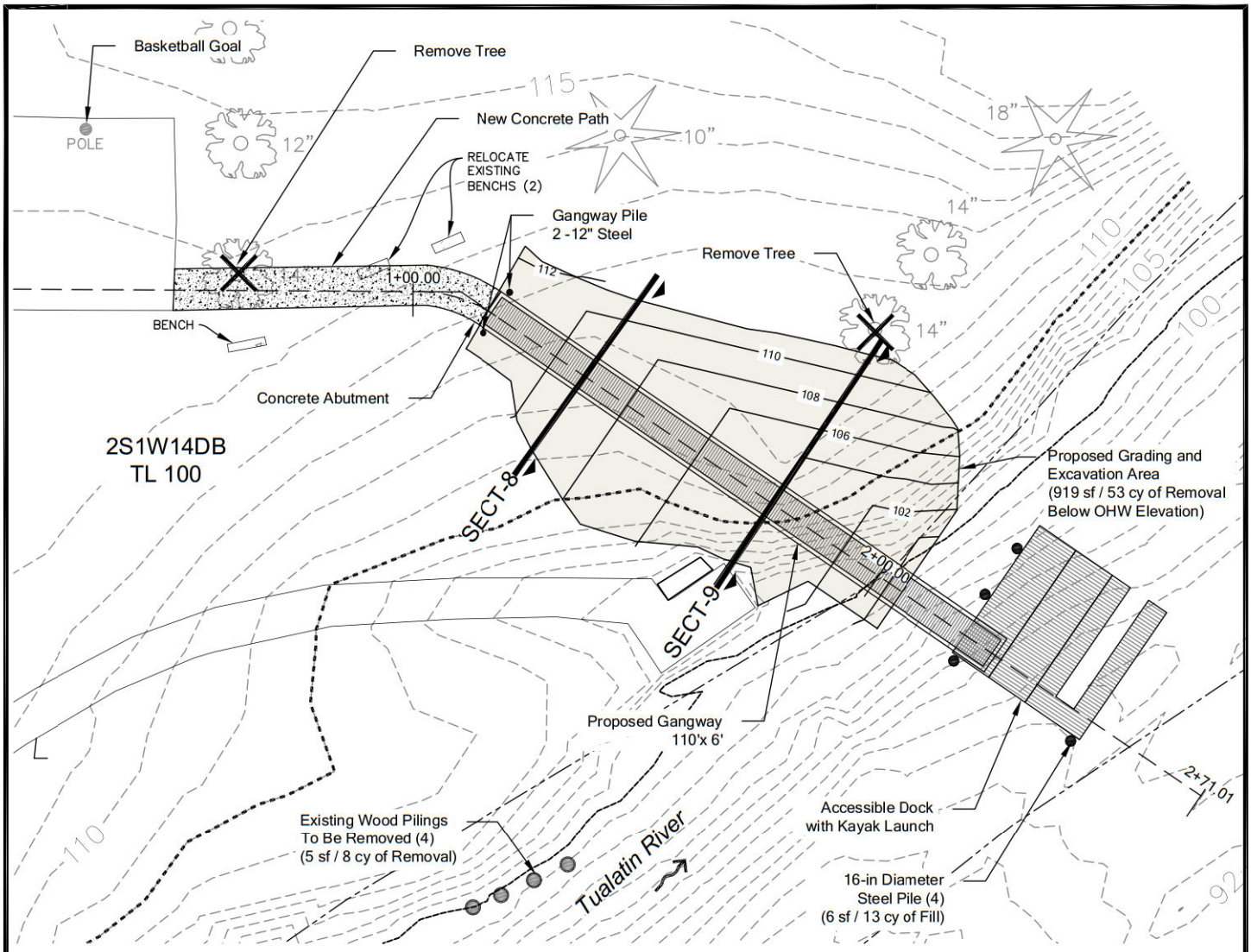
SCALE IN FEET

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Site Plan Overview and Sheet Index
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 5

8-2-2023



NOTES:

1. See Figure 6A-1 for Profile, Figure 6A-2 for Sections 8 and 9, and Figure 6A-3 for OSMB Kayak Dock Prototype Plan and Profile.
2. See Figure 7 for temporary impact areas and work areas

LEGEND

- Project Area Boundary
- Waters of the State/US
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
- Tax Lot Line

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
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Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

0 15 30 60

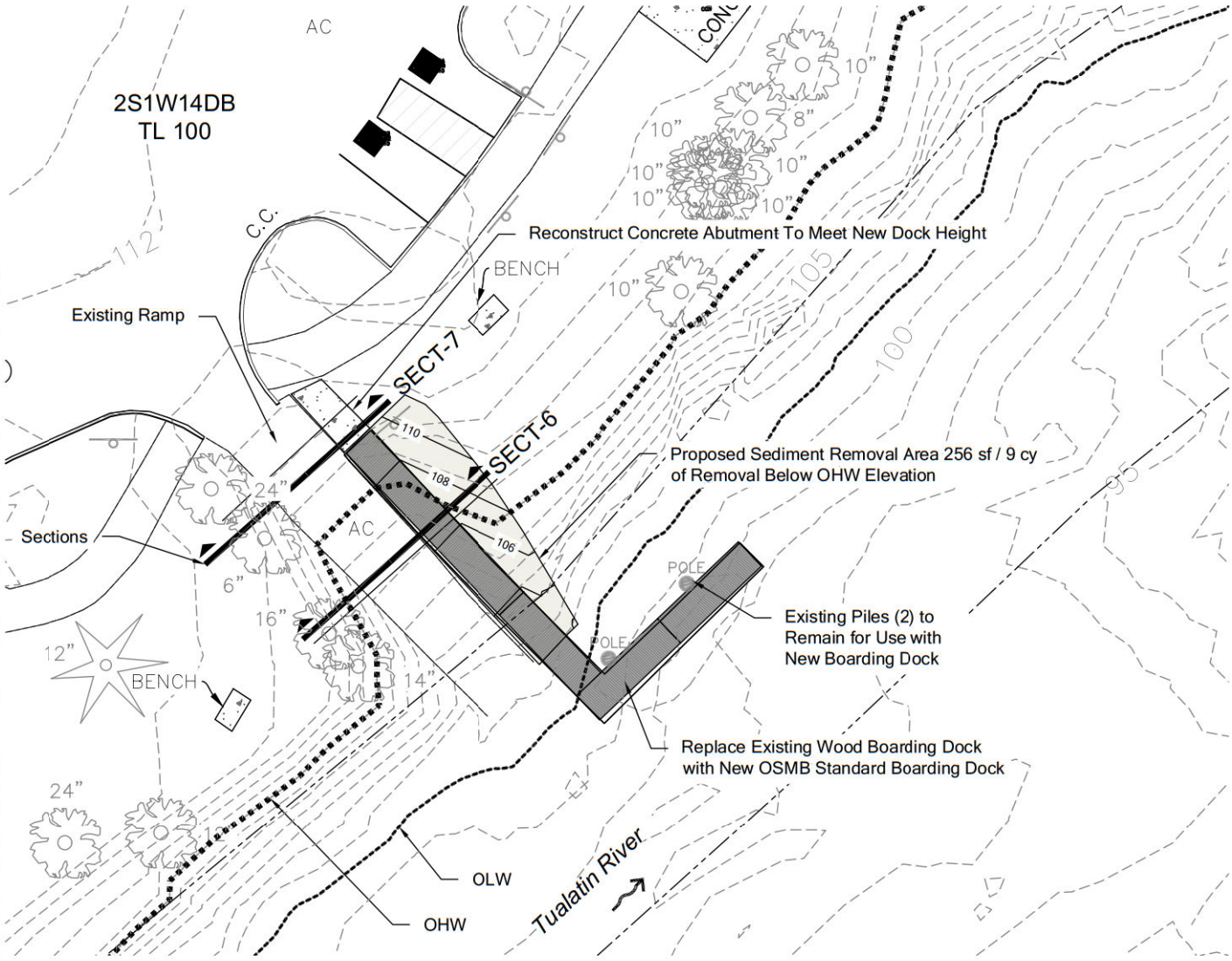
SCALE IN FEET

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Proposed Site Plan and Grading for Accessible Ramp and Dock
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 5A

8-2-2023



NOTE:
For Sections see Figure 6B-1 and for OSMB Standard Boarding Dock see Figure 6B-2

LEGEND

- Project Area Boundary
- Waters of the State/US
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
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Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum.

N

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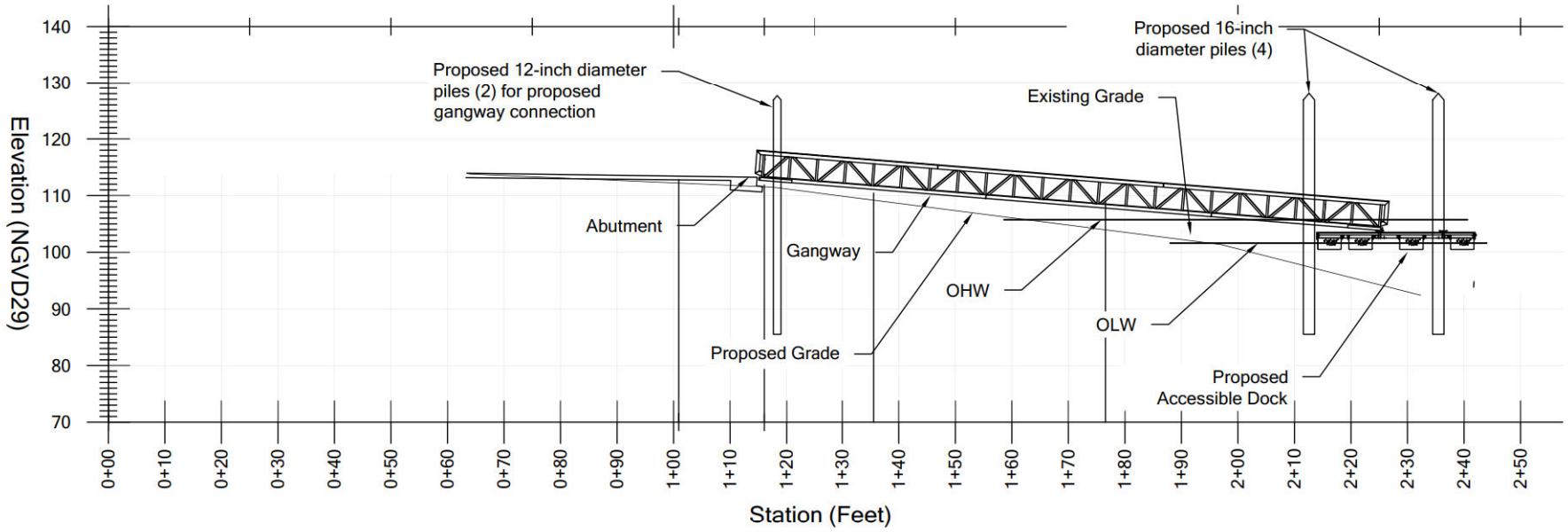
SCALE IN FEET

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Boarding Dock Replacement and Sediment Removal Area
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 5B

8-2-2023



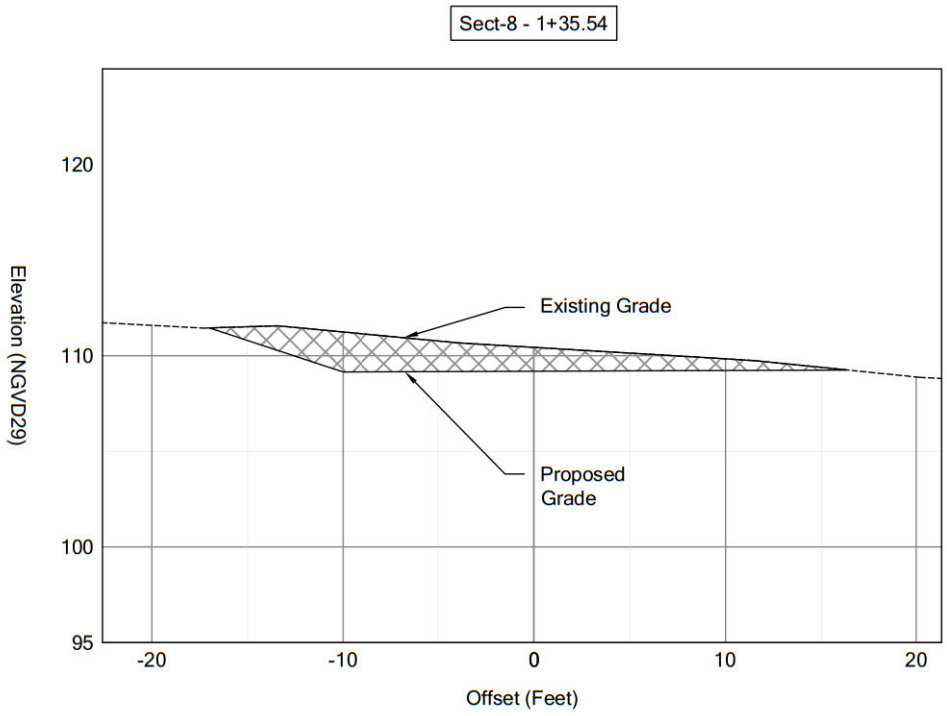
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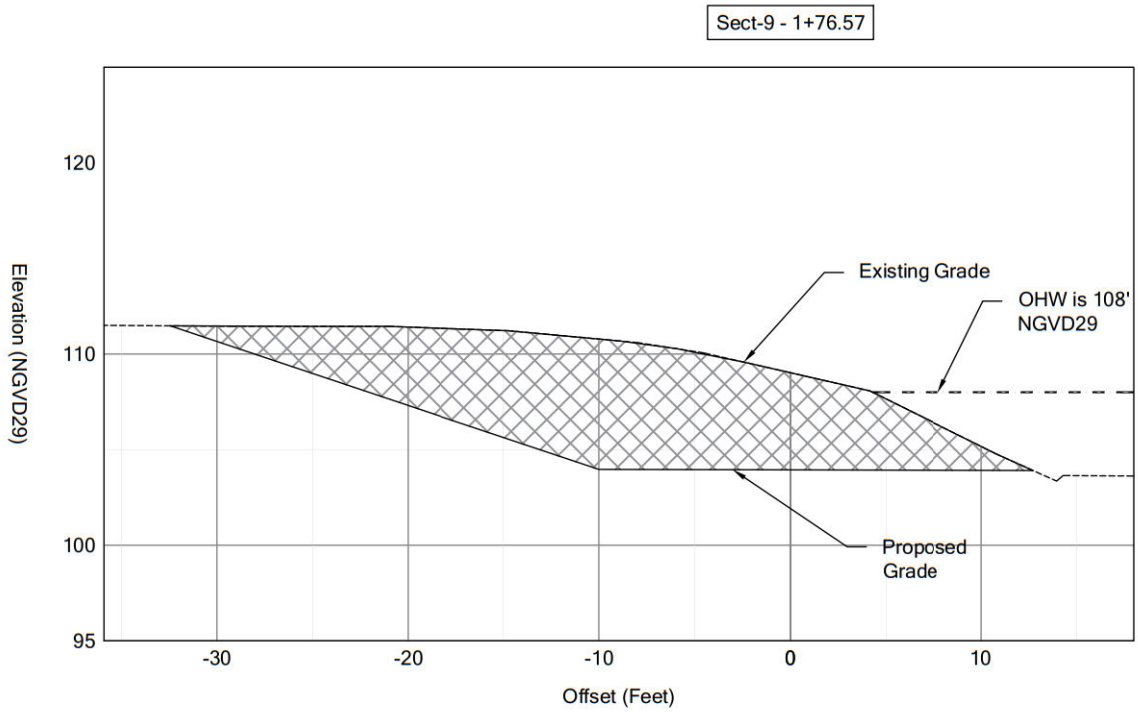
Accessible Dock, Gangway, and Piles Profile
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6A-1

4-20-2023

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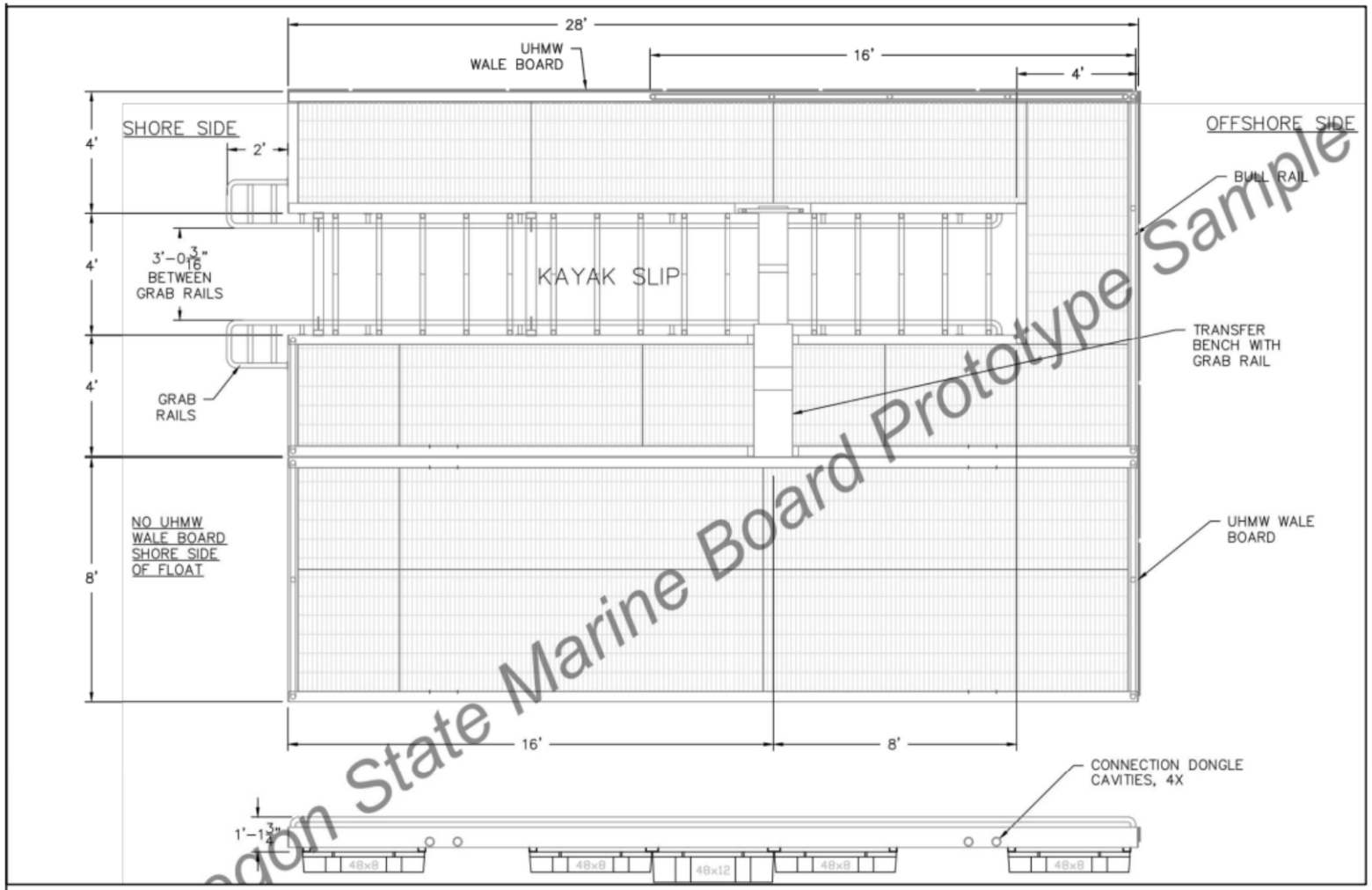
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Accessible Ramp and Dock Bank Grading Area Sections
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6A-2

8-1-2023

C:\Users\Lisa\Desktop\WorkFromHome\7521 Cook Park Boat Ramp\AutoCAD\Plot Dwg\Fig6A-2 RampFloat-Bankgrading.dwg, 8/2/2023 1:14:00 PM, AutoCAD PDF (High Quality Print).pc3



OSMB Kayak Dock Prototype
Plan/Profile

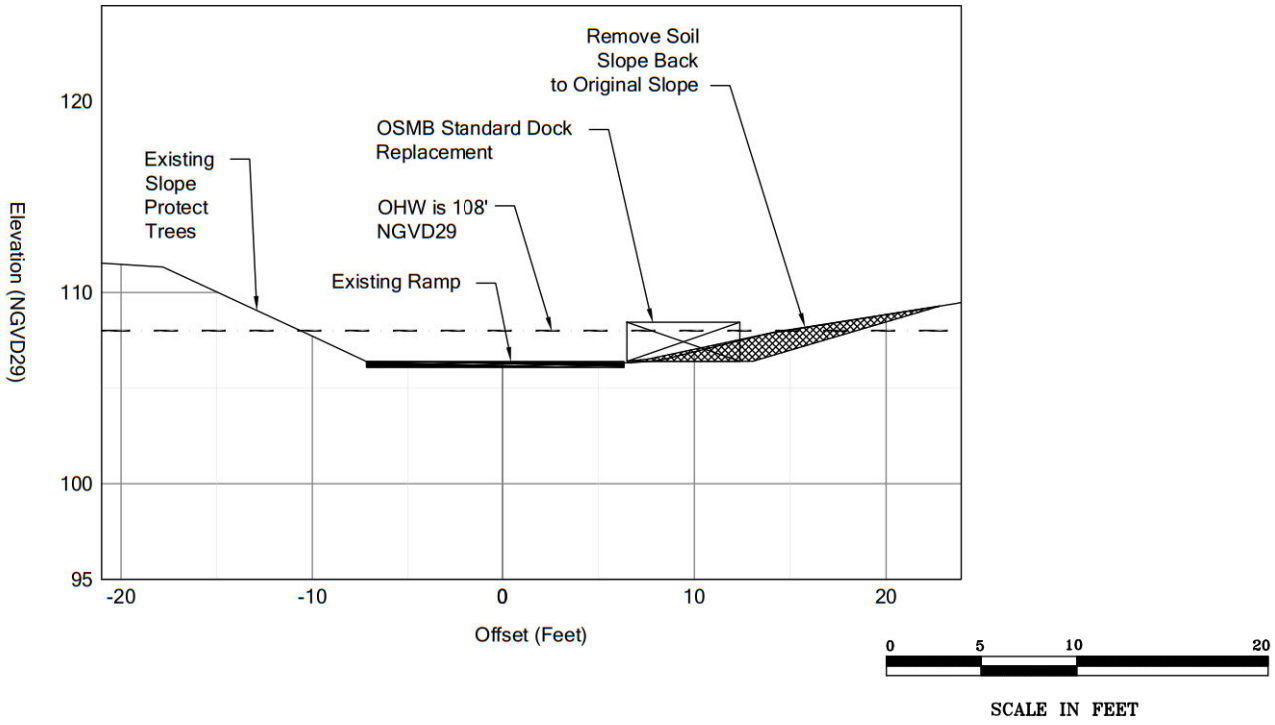
Project #7521
4/20/2023

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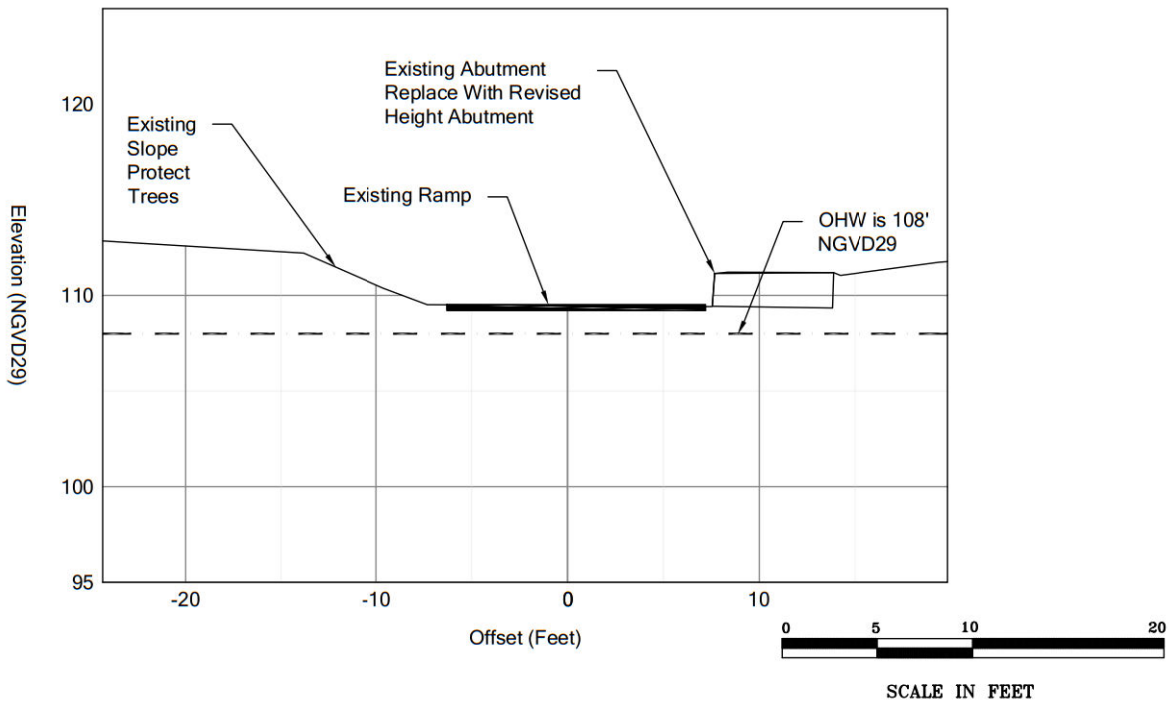
Oregon State Marine Board Kayak Dock Prototype
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE
6A-3

Sect-6 - 0+53.60



Sect-7 - 0+75.32



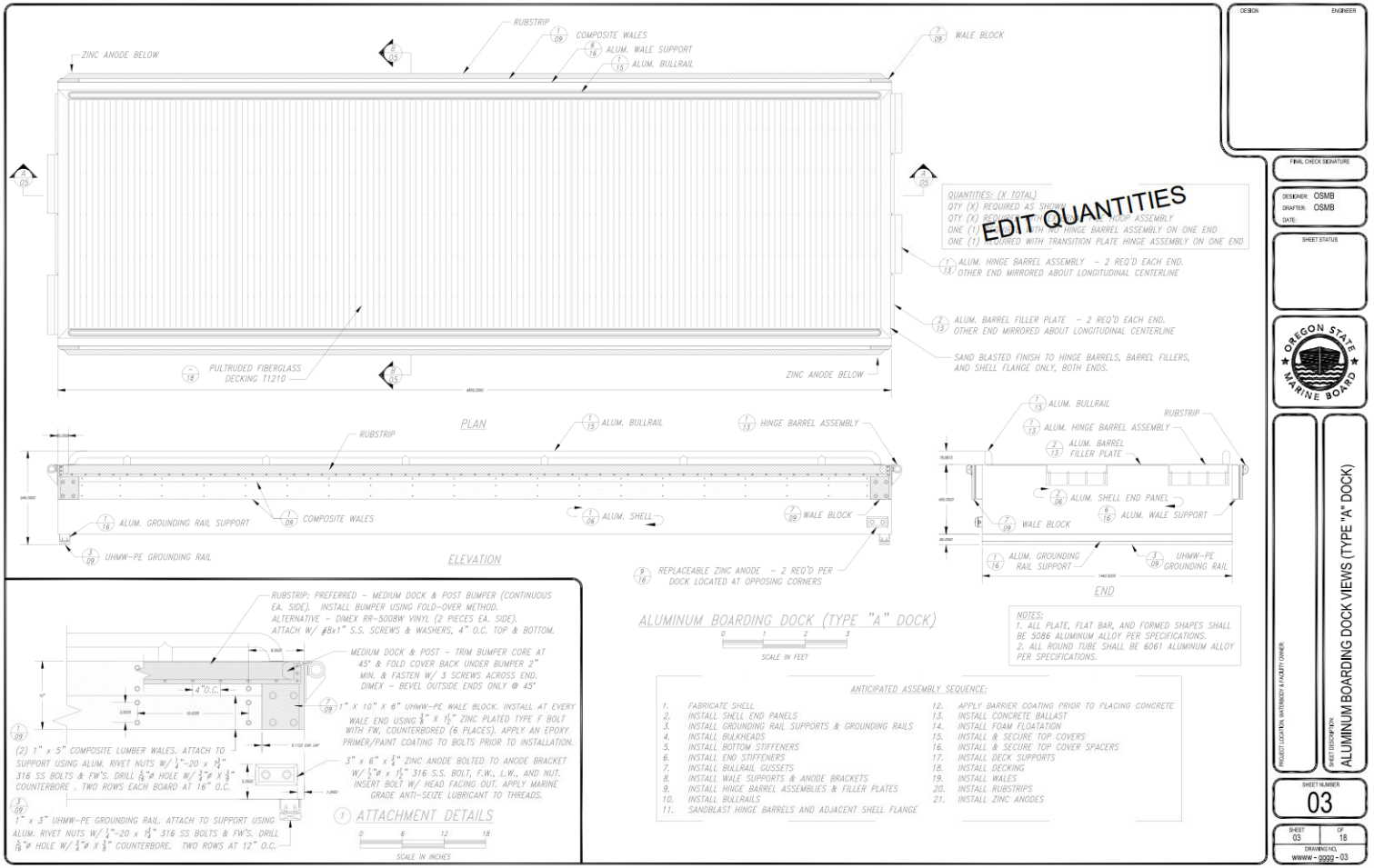
PHS
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Standard Boarding Dock Sections
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6B-1

8-2-2023

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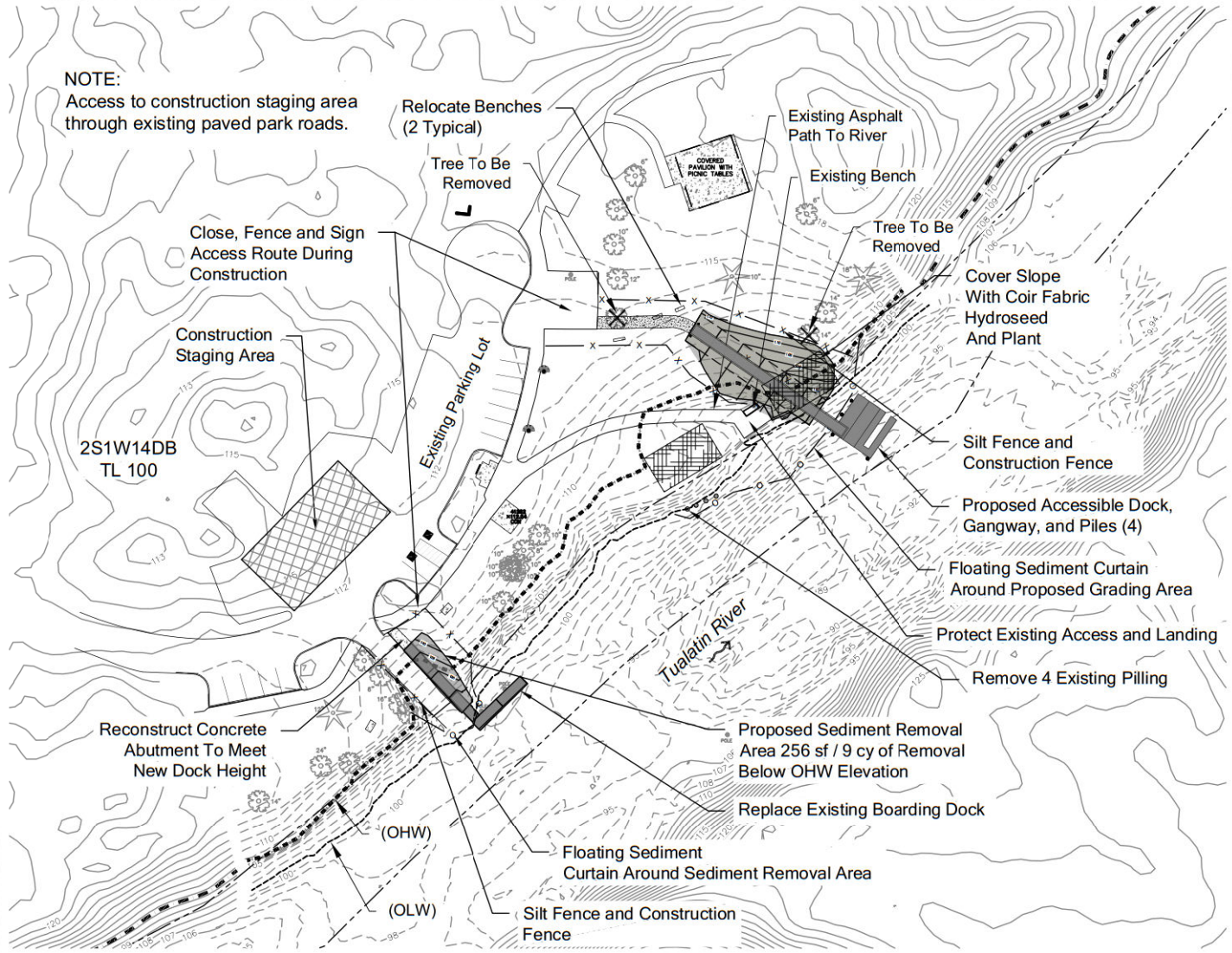


PHS
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Boarding Dock Plan and Profile
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
6B-2

4-20-2023



NOTES:

1. Temporary work pad locations are estimates based on the site survey and anticipated construction equipment.
2. Final temporary work pad locations to be determined by construction contractor based on field conditions at the time of construction and construction equipment limitations.
3. Temporary work pads will not be placed in standing water without prior approval from the US Army Corps of Engineers and Oregon Department of State Lands.

LEGEND

- Project Area Boundary
- Waters of the State/US
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line
- Tree To Be Removed
- Temporary Work Pad
- Grading Area
- Sediment Fence
- Floating Curtain

0 50 100 200

SCALE IN FEET

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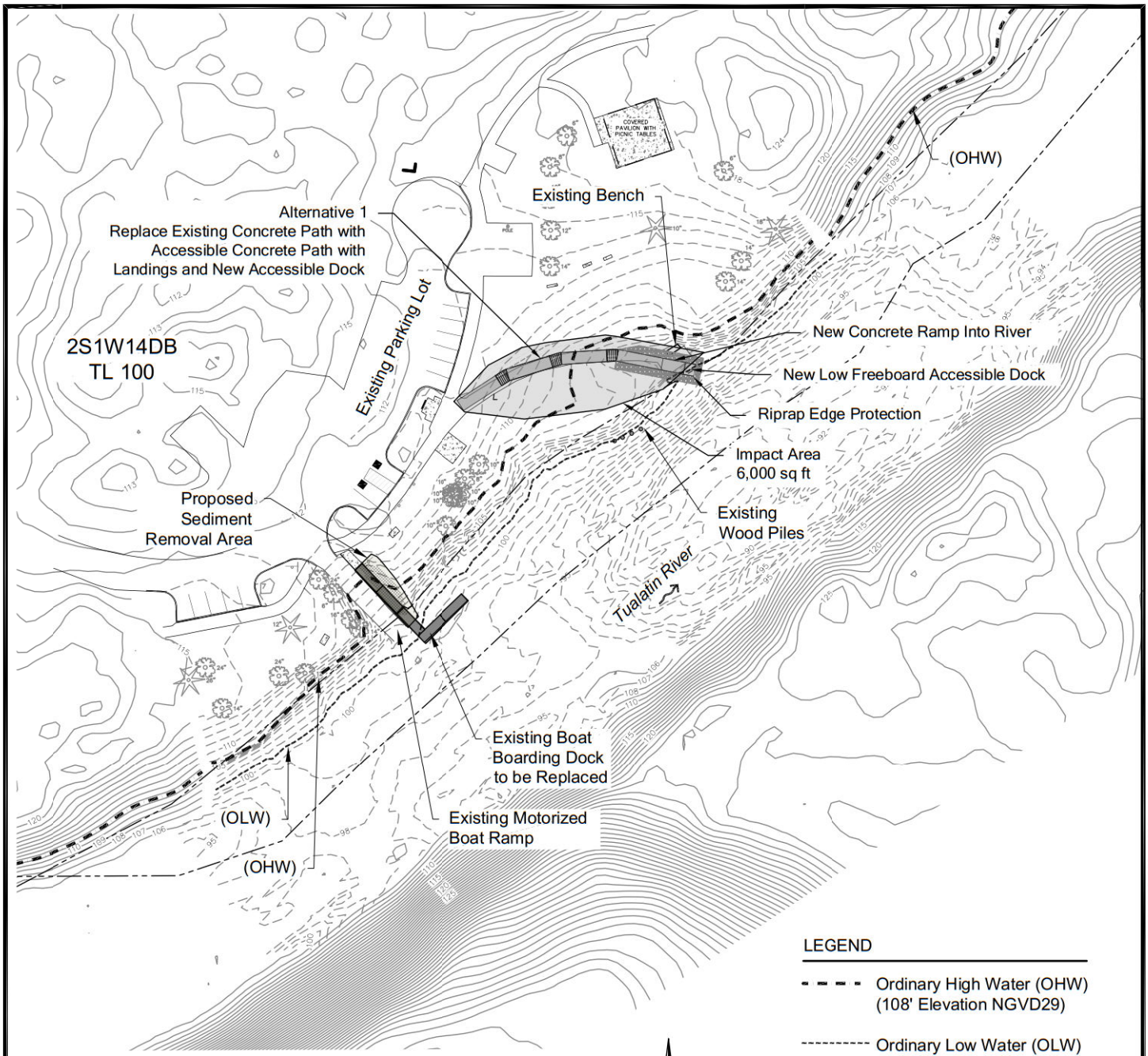
See Figure 5 for survey information, data sources, and accuracy statement

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Demolition and Erosion Control Plan
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 7

8-2-2023



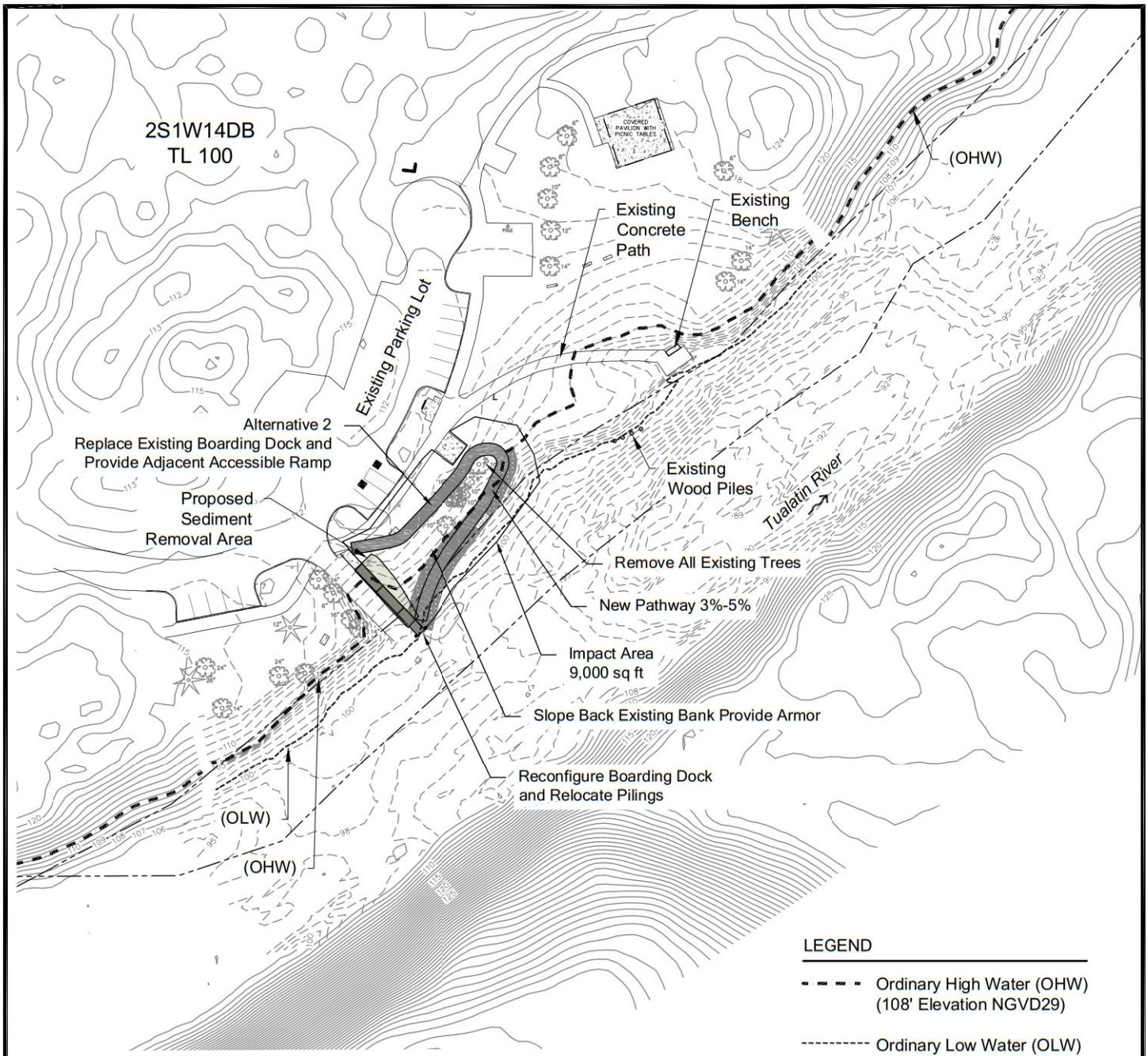
Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
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Alternative 1
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
8A

8-2-2023



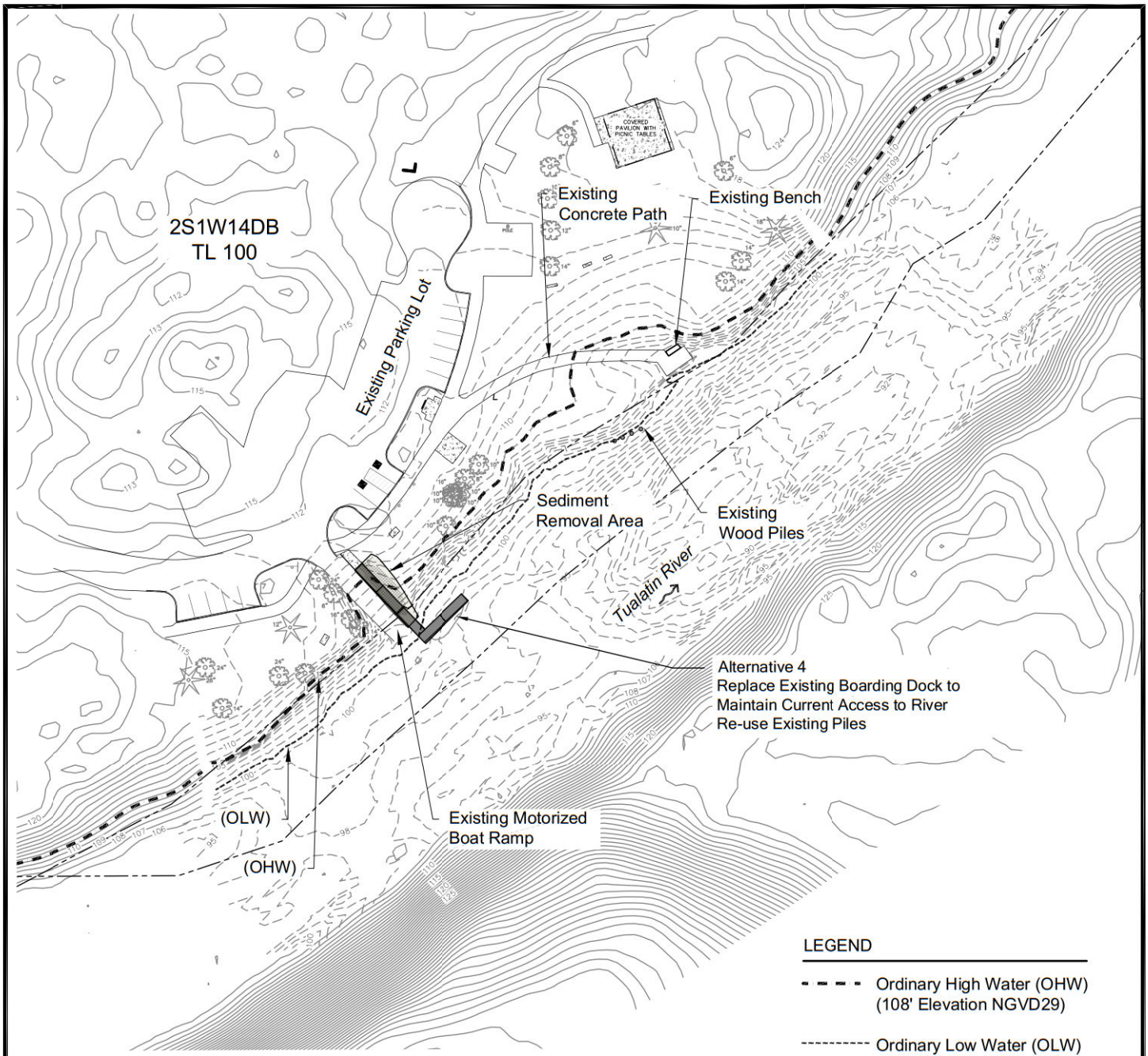
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Alternative 2
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 8B

8-2-2023



LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line

Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
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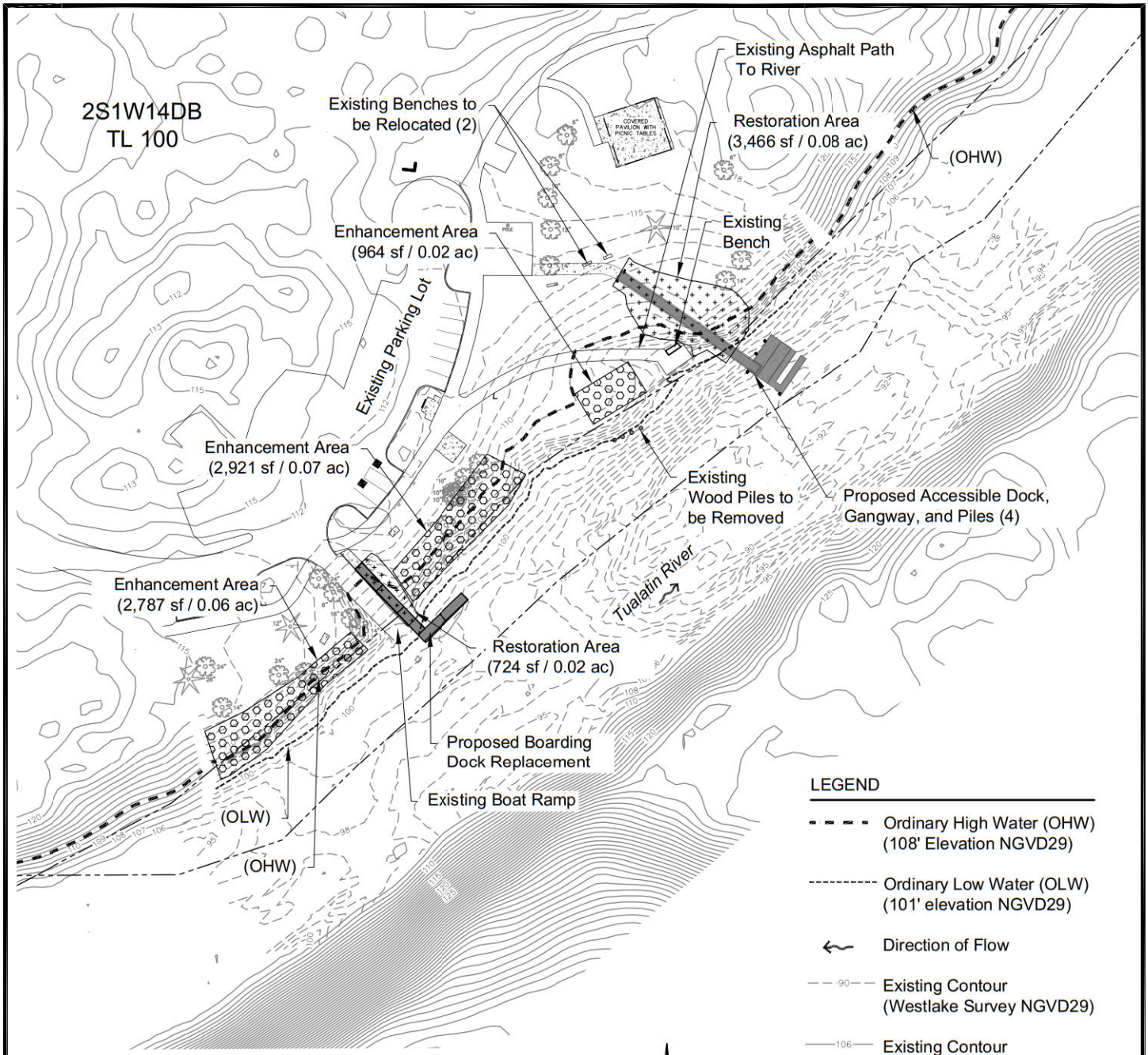
SCALE IN FEET

PHS
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Alternative 4
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
8C

8-2-2023



Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area.
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Restoration and Enhancement Plan
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 9

8-2-2023

Natural Resource Assessment
Cook Park Accessible River Access and Dock Replacement Project

Prepared for

City of Tigard
13125 SW Hall Boulevard
Tigard, Oregon 97223

Prepared by

Tina Farrelly, PWS, Shawn Eisner
John van Staveren
Pacific Habitat Services, Inc.
Wilsonville, Oregon 97070
(503) 570-0800

PHS Project Number: 7521

November 28, 2023



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4.2 Vegetated Corridor Plant Communities....3
4.3 Vegetated Corridor Plant Community Condition....3

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5.5 Alternative Analysis....8
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APPENDIX A: Figures
APPENDIX B: Wetland Delineation Sample Points
APPENDIX C: Vegetated Corridor Sample Points Table and Photo Documentation

1.0 INTRODUCTION

This natural resource assessment (NRA) is for a proposed project to provide accessible river access and to replace a degraded boarding dock in Cook Park in Tigard, Oregon. Pacific Habitat Services (PHS) conducted wetland delineation and NRA site visits to the project area on May 12, 2022, August 18, 2023, and November 21, 2023. Figure 1 shows the approximate location of the project area and existing resources, which includes the existing boat ramp and boarding dock as well as the adjacent beach area in Cook Park (all figures are in Appendix A). The existing Sensitive Areas, Vegetated Corridors (VC), and Plant Communities in the project area are shown on Figures 2/2A/2B and 3/3A/3B.

This report presents the definitions and the methodology used to assess the natural resources on the site, as well as proposed VC encroachments, as required by Clean Water Services (CWS).

2.0 EXISTING CONDITIONS

The project site is in Washington County within Cook Park, a City of Tigard public park deeded to the City in 1962. The park provides a wide array of public recreation opportunities including nature viewing, picnic areas, structured and passive recreation, and access to the Tualatin River. A boat ramp and boarding dock have been present since the 1970s, with the current configuration of the boarding dock and path to the river permitted in the 1990s. The project area includes portions of the Tualatin River and its riparian area within the existing river access area of Cook Park. The existing boat ramp and boarding dock, remnant wooden piles, public restrooms, picnic areas, informal and structured play areas, paved and soft-surface trails, and parking areas are present within and adjacent to the project area.

The project is within the Lower Tualatin River watershed that drains approximately 62,300 acres and includes portions of the urban areas of Portland, Beaverton, Sherwood, Tigard, Tualatin, Lake Oswego, and West Linn as well as rural residential, agricultural, and forestry lands in Washington County. This portion of the river is extremely low gradient (generally less than 1 percent) and is characterized by low velocity flow within the alluvial plain. The project site is at River Mile 9.9 of the Tualatin River, which is a riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) water of the U.S./State with a Riverine Flow-through hydrogeomorphic (HGM) classification.

3.0 DISCUSSION OF WATER QUALITY SENSITIVE AREAS

The NRA and delineation field work and data collection included a determination of the approximate location of all sensitive areas within about 50 feet of the proposed project area. The Tualatin River is present within the project area and wetlands are present near, but outside of the project area. Steep slopes are not present along or adjoining the project area with the exception of the river bank, which is moderately sloped for a short distance landward of the OHW elevation in some locations.

PHS delineated the OHW of the Tualatin River and investigated the project area for wetlands and other waters using the required criteria and methodologies of the Corps of Engineers *Wetland Delineation Manual Technical Report Y-87-1* (Environmental Laboratory, 1987) and the *Western Mountains, Valleys, and Coast Region* regional supplement to the 1987 Manual. Data sheets documenting site conditions above the OHW elevation of the Tualatin River are included in Appendix B; no wetlands were identified. Data point locations are shown on Figures 2A and 2B.

PHS flagged the OHW elevation of the Tualatin River based on signs of scour, distinct changes in vegetation coverage, sediment deposits, and wrack lines. The OHW elevation of the Tualatin River was determined to be 108 feet (NGVD29) based on the elevation flagged by PHS and surveyed by the Westlake Consultants, Inc. PHS then interpolated USGS gage data from nearby stations on the Tualatin River, which confirmed the field-identified OHW elevation. The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions, the project designer, based on multiple field visits during the low water season. Substrate within the project reach is dominated by fine sediment. Frequent, slow-moving high water events result in annual sediment deposits in areas below the OHW elevation. This includes areas at the boat ramp and beneath the existing boarding dock, at the riverward end of the existing concrete path, and landward of the remnant wood piles.

Two wetlands identified for the Tigard Local Wetland Inventory (LWI) are present near the project area and were assessed during the field investigation. The wetlands are palustrine forested (PFO) systems within the floodplain of the Tualatin River. Wetland F-20 is located on the north side of the existing parking area and is approximately 5.8 acres in size. Wetland F-21 is located west of the parking area and is approximately 0.75-acre in size. Paved and soft-surface trails largely surround these wetlands, and the parking area defines much of the southern boundary of Wetland F-20.

Because the project area does not include work in or near the wetlands, a formal wetland delineation was not conducted; however, PHS collected upland sample points to verify the absence of wetlands within the project area and delineated the OHW of the Tualatin River within the project area so that the limits of this Sensitive Area could be accurately determined and project-related encroachments could be quantified.

4.0 VEGETATED CORRIDOR ASSESSMENT

4.1 Vegetated Corridor Width Determination

The features of each sensitive area were assessed in order to determine the width of the VC. The total area of VC assessed for the project is approximately 3.87 acres (168,737 square feet), including VC associated with the Tualatin River and the LWI-identified wetlands. The location and widths of vegetated corridors are shown on Figures 2, 2A, and 2B. Slopes throughout the project area are gently sloping and generally much less than 25 percent; therefore, corridor widths do not exceed the standard widths of 125 for the Tualatin River or 50 feet for wetlands adjoining the project area. Vegetated corridors associated with wetlands are 50 feet wide because each is greater than one-half acre in size. The VC adjoining Wetland F-20 was truncated along the access road because it is paved, approximately 20 feet wide, and actively used for vehicular traffic.

4.2 Vegetated Corridor Plant Communities

A discussion of each plant community within identified vegetated corridors is included below. Vegetative sample sites were chosen at representative locations throughout the project area. Appendix C includes all vegetation data points, organized by community, and representative of conditions within Communities A, B, and C. The vegetated corridor sample sites and plant communities are identified on Figures 3, 3A, and 3B. Photos of the project site are also in Appendix C see Figures 3A and 3B for photo locations.

Community A (43,170 square feet/ 0.99 acres) includes the more highly managed areas of the project area and is typically dominated by mowed lawn grasses and common weeds. A few scattered Oregon ash (*Fraxinus latifolia*) are present, but dominant vegetation is comprised of various grass species and weedy forbs. Community A is regularly mowed by park staff and used for picnicking and passive recreation by park users.

Community B (100,001 square feet/ 2.29 acres) includes the forested riparian areas of the Tualatin River. The area includes both paved and soft-surface paths. The tree and shrub layers are predominantly comprised of native species, though the presence of Himalayan blackberry (*Rubus armeniacus*), Canada thistle (*Cirsium arvense*), English ivy (*Hedera helix*), and reed canarygrass (*Phalaris arundinacea*), as well as the large portion of non-native herbaceous species reduces the overall percent cover by native species. Canopy cover is good and the most common tree species are big-leaf maple (*Acer macrophyllum*), Oregon ash, Douglas-fir (*Pseudotsuga menziesii*), and Western red cedar (*Thuja plicata*). Common native shrubs include red-osier dogwood (*Cornus alba*), Pacific ninebark (*Physocarpus capitatus*), and snowberry (*Symphoricarpos albus*). The most abundant native groundcover species is trailing blackberry (*Rubus ursinus*), with few other native ground covers present with significant overall coverage.

Community C (25.566 square feet/ 0.59 acres) includes highly managed areas with more canopy coverage than Community A. The most common tree species in Community C include big-leaf maple, Oregon ash, and Western red cedar. There is very little shrub vegetation in Community C and the ground cover layer is dominated by mowed lawn species and common weeds. Community C is regularly mowed by park staff and used for shaded picnicking and passive recreation by park users.

4.3 Vegetated Corridor Plant Community Condition

The condition of the vegetated corridor is defined by the percentages of native species and canopy cover. Table 1 shows the percent composition of native species and tree canopy cover in accordance with Clean Water Services' standards.

Table 1. Summary of Plant Communities

		Plant Communities		
Corridor Condition		**A**	**B**	**C**
Good	>80% cover of native plants >50% tree canopy		**72% canopy**	**60% canopy**
Marginal	50% - 80% cover of native plants 26-50% tree canopy		**67% natives**	**53% natives**
Degraded	<50% cover of native plants ≤ 25% tree canopy	**13% natives 13% canopy**		

Plant Community A includes a few trees but has very little canopy cover and most of the vegetation is non-native. As such, Community A is in degraded condition.

Community B has good canopy cover but less than optimal percent cover of native species. The condition of Community B has been identified as marginal condition in recognition of the presence of paved and soft-surface paths and the co-dominance of non-native and invasive species in the shrub and understory layers.

Community C has good canopy cover but generally lacks a shrub layer and is dominated by non-native herbaceous plants. In addition, the area is frequently maintained and used for recreation, which reduces the habitat and water quality functions provided by the VC.

Communities B and C are at risk of losing significant canopy coverage in the coming years due to the poor health of Western red cedar trees in these communities. Many of the Western red cedar trees within these communities were noted to be in poor condition during the NRA field work. This was confirmed by Park staff, who reported Western red cedar losses throughout Park-owned properties.

5.0 PROPOSED PROJECT

The proposed project is to provide accessible river access and to replace a degraded boarding dock at Cook Park (Figures 4, 4A, and 4B). Accessible river access for non-motorized watercraft and other passive river users will be provided with a new path, gangway, and Oregon State Marine Board (OSMB) standard dock with a kayak slip (accessible dock); all of which meet ADA access standards and will provide entry into the water at all river stages. The ground surface beneath the proposed accessible dock will be graded to accommodate the proposed gangway.

The existing boarding dock to be replaced has been in place since 1997 and has deteriorated to the extent that user safety is at risk. The replacement boarding dock design utilizes current OSMB dock guidelines, occupies the same footprint as the existing dock, and will attach to the existing piles. Accumulated sediment will be removed from beneath the boarding dock so that it will be level and safe for users.

The project includes remnant pile removal and plantings in the VC to off-set project impacts to the riparian area and aquatic environment. The project will slightly increase impervious surface areas with the new accessible path; however, this area is non-pollutant generating and the need for a formal stormwater management plan is not anticipated. Stormwater infiltration will be accomplished via sheet flow into vegetated areas adjoining the path.

5.1 Project Details

The development figures not only show proposed project elements, but also limits of grading, construction access, and project staging. The project is designed to complement the City of Tigard's existing park elements as well as to provide new park elements that improve access for all residents.

Proposed Accessible River Access **(Figure 4A)**
A new path, gangway, and dock will provide accessible access to the river for non-motorized watercraft and recreation. The new OSMB standard dock is approximately 28 feet by 28 feet with an inner kayak launch area that is equipped with a transfer bench and grab rails. A new gangway approximately 110 feet long and 7 feet wide will connect to a new concrete abutment and will provide access to the accessible dock float from a new paved path from the existing parking lot. The accessible dock will be secured in place with four new 16-inch diameter piles. Grading and excavation is necessary beneath the proposed gangway so that it will not bottom out during low water conditions. The grading and excavation area will be stabilized with coir fabric and wooden stakes prior to planting and seeding. The fabric will be left in place to bio-degrade.

Removal of Remnant Wood Piles and Bracing **(Figure 4A)**
Four remnant wood piles and bracing from a previous structure are present along the shoreline of the project area. The piles no longer serve a function and will be removed to provide mitigation and improve aquatic habitat in the project area.

Replacement of Existing Boarding Dock **(Figure 4B)**
The existing timber boarding dock will be replaced with a new modular OSMB standard dock with grated walk surfaces and properly encapsulated floatation material. The new boarding dock will occupy the same footprint as the existing boarding dock with no new overwater structure area and will be anchored to the two existing timber piles in the river. The existing concrete abutment above the OHW elevation for the upland end of the new boarding dock may be reconstructed as necessary to accommodate the height of the new modular dock. There will be no changes to the existing concrete boat ramp adjacent to the boarding dock. Sediment has gradually accumulated beneath the existing dock and gangway since 1997. The accumulated sediment will be removed to ensure a suitable cross slope for the proposed modular boarding dock. The sediment removal area will be stabilized with coir fabric and wooden stakes prior to planting and seeding. The fabric will be left in place to bio-degrade.

Construction Access Areas and Temporary Work Pad(s)
Construction access areas will be needed to construct the proposed project. Temporary construction fencing and erosion control measures will be installed around work areas to ensure that project-related impacts do not extend into areas to remain undisturbed. The placement of a temporary work pad(s) below the OHW elevation may be required to allow the work crane to be staged in close proximity to the pile removal and installation areas (see Figure 5). The temporary disturbance would include the placement of crane mattresses to dissipate the load of the crane, with supplemental rock on geotextile fabric as needed for stability. Temporary work pad areas are estimates based on the site survey and anticipated construction equipment. Final temporary work

pad locations will be determined by the construction contractor based on field conditions at the time of construction, and construction equipment limitations. Temporary work pads will not be placed in standing water without prior approval from the US Army Corps of Engineers and Oregon Department of State Lands.

As with most projects occurring within or adjacent to existing Sensitive Areas and/or VCs, enhancement and mitigation will be necessary. See Sections 5.2 and 5.3 and Figures 6, 6A, and 6B for more enhancement and mitigation details and the preliminary planting lists.

5.2 Vegetated Corridor Encroachments

The project includes permanent encroachment within the existing VC of the Tualatin River, though the proposed design attempts to minimize these impacts. Given the project purpose to maintain the existing river access and provide a new, accessible river access, there are unavoidable impacts to the river and VC, as well as project elements that do not meet the allowed use limitations. As such, the proposed project will be examined and approved by CWS through a Tier 2 Alternatives Analysis (see Section 5.5 below). Project elements in the VC that do not meet allowed use limitations include the following:

- Proposed final grades differ from existing grades
- Proposed grades exceed 4H:1V
- Graded areas will not be restored to Good Corridor Condition
- The path is closer than 30 feet from the two-year 24-hour design storm elevation of the Tualatin River

The combined area of all permanent encroachments resulting from the proposed project, as described in Section 5.1 above, is 3,554 square feet (0.08-acre). Site access and construction will result in 3,438 square feet (0.08-acre) of temporary encroachments. Upon conclusion of project construction all access routes will be removed and all areas of temporary encroachment revegetated to restore impacted areas to the existing condition. A breakdown of the encroachment areas[1] by project element is included in the following table.

Table 2. Proposed Vegetated Corridor Encroachments

Project Element	Permanent Encroachment (square feet)	Temporary Encroachment (square feet) (sf)
Concrete Path to Gangway	753	1,795
Grading Area for Accessible Gangway and Dock	2,556	1,100
Grading area for Boarding Dock	245	543
Total	**3,554**	**3,438**

[1] There will be additional permanent and temporary impacts below the OHW elevation of the Tualatin River which are under review by the US Army Corps of Engineers and the Oregon Department of State Lands. Impacts from project elements below the OHW elevation are not included in VC encroachment areas.

5.3 Proposed Vegetated Corridor Mitigation

Permanent encroachments as proposed total 3,554 square feet (0.08 acres) to degraded Plant Community A. Mitigation for proposed encroachments includes enhancement within the existing VC of the Tualatin River. The applicant has proposed to satisfy mitigation requirements via enhancement of existing VC; the total area of required mitigation for encroachments is therefore 7,108 square feet (2:1 ratio). The location of the proposed mitigation area is north-northeast of the new accessible river access dock, as shown on Figure 6.

All mitigation will be consistent with Clean Water Services' standards (per Section 3.08 *Replacement Mitigation Standards*, and *Appendix A: Planting Requirements* of R&O 19-05, Amended by R&O 19-22). The overall goal will be to restore or create vegetated corridor to "good" condition.

Temporary encroachments within the VC resulting from construction access total 3,438 square feet (0.08-acre). These temporary encroachment areas will be restored in-kind with a native grass seed mix and stem for stem replacement of any shrubs or small trees removed to facilitate access.

5.4 Vegetated Corridor Enhancements

As project related encroachments within VC are associated with path and boat dock improvements on a small part of a large parcel owned by the applicant, it is anticipated to be reviewed as a linear development. Enhancement is therefore proposed in compliance with applicable sections of Section 3.12. The acreage of required enhancement is equal to the area of the project footprint (per 3.12.b.1), which includes pervious, grassy areas in the degraded Plant Community A, the shoreline below the OHW elevation affected by the project, and the Tualatin River in the area of the replacement boarding dock and new accessible dock. The project footprint does not include project staging within the paved access road or parking area. In total, 15,457 square feet (0.35-acre) of project related enhancement is required. An additional 3,088 square feet of the VC above the OHW elevation near the boarding dock will be added to the enhancement plan to provide an additional public benefit for the project.

Project related enhancement is planned for fulfillment between the Tualatin River and LWI Wetland F-20, as shown on Figure 6. Enhancement areas have been selected based on their proximity to proposed development activities, the Tualatin River, and/or the mitigation area as well as for their relative condition and opportunity to provide functional uplift to the existing VC.

The enhancement areas adjacent to the boarding dock replacement will serve to provide improved riverbank stability in the area, which experiences more waves from motorized boating compared to other areas of shoreline. The enhancement area north of the existing paved trail and south of LWI Wetland F-20 is an area with no native shrub cover and non-native grasses and weedy forbs. The buffer between the wetland and the path is very narrow and regularly mowed as an open space. The proposed enhancement of this area will provide a functional uplift to the wetland and the Tualatin River watershed. The enhancement area east and south of the proposed mitigation area will provide a large, contiguous area that is maintained in good corridor condition. Finally, the proposed enhancement areas contain Western red cedars in poor health. By enhancing these areas with native plantings, the City is protecting against future tree losses that could negatively impact canopy coverage in the VC.

The City will provide funds necessary to complete enhancements, and will assume the responsibility of invasive species control, native species planting, maintenance, and monitoring. As such, all of the requirements of Clean Water Services' standards regarding plant establishment and follow up will be met (per *Appendix A: Planting Requirements* of CWS *Design and Construction Standards* (R&O 19-05) and project specific conditions as enumerated in the project's Service Provider Letter (SPL).

5.5 Alternatives Analysis

The City of Tigard has sought to minimize encroachments of the proposed project by minimizing the footprint of proposed project elements, replacing existing structures in-kind where possible, and limiting encroachments to the portion of the project site that is already intensely used for river access and recreation. As described in Section 5.2, several project elements do not meet the allowed use requirements and a Tier 2 Alternatives Analysis is, therefore, required. The proposed project will meet all Tier 2 Alternatives Analysis criteria; responses to the criteria are detailed below.

1. The proposed encroachment area is mitigated in accordance with Section 3.08.

Mitigation for 3,554 square feet (0.08-acre) of permanent encroachment to vegetated corridor for project construction will be consistent with Clean Water Services' standards (per Section 3.08 *Replacement Mitigation Standards*, and *Appendix A: Planting Requirements* of R&O 19-05). Mitigation includes the enhancement of 7,108 square feet of the existing VC to the north-northeast of the proposed accessible dock in accordance with the standards of Section 3.08.4. The mitigation area is within Plant Community C, which is in marginal corridor condition and is currently used for recreation. The City will remove the mitigation area from recreational use and install plantings to transition the area to a VC in good corridor condition that provides improved natural resource functions. The mitigation is twice as large as the permanent encroachment area and is adjacent to the enhancement area required for linear developments. The City can provide an easement for the mitigation area, however, since the land is publicly owned by the City it is anticipated that an easement will not be required.

2. The replacement mitigation protects the functions and values of the Vegetated Corridor and Sensitive Area.

The mitigation proposal is for 7,108 square feet (0.08-acre) of enhancement of existing VC within Cook Park. The mitigation total takes into consideration the condition of VC to be impacted, the mitigation sites' distance from the project impact areas, and the functional uplift provided to the VC and Tualatin River.

The VC to be impacted by the proposed project is in degraded condition, as it has been largely cleared of historic riparian vegetation and maintained as open, grassy area for recreation and river access. Where possible, the limits of existing development have not been expanded and are being used for project staging and access. Where new development is proposed, the limits of permanent and temporary encroachments have been minimized to the extent practicable.

The mitigation area was selected to be in close proximity to the new development area. This will ensure that project-related impacts are mitigated in the same local watershed. The proposed mitigation area will be enhanced to good condition and protected from disturbances associated with the adjacent recreational areas. The improved condition will provide functional uplift to the existing

VC, providing improved hydrologic, geomorphic, biological, and water quality/chemical functioning within the project area. Additional detail on the improved functions is contained in the Functional and Values Assessment, Section 5.6.

3. Enhancement of the replacement area, if not already in Good Corridor Condition, and either the remaining Vegetated Corridor on the site or the first 50 feet of width closest to the resource, whichever is less, to a Good Corridor Condition.

All enhancement and mitigation areas will be enhanced to Good Corridor Condition. The proposed enhancement as mitigation area and the enhancement area equal to the project footprint required for linear developments are within the existing VC. The areas adjoin the Tualatin River and LWI Wetland F-20. The enhancement and mitigation areas were selected based on the existing condition of the VC, which can be improved by the removal of invasive plants and/or the installation of native tree, shrub, and ground cover plants. The City of Tigard will ensure that all of the requirements of CWS' standards regarding plant establishment and follow up (*per Appendix A: Planting Requirements of CWS Design and Construction Standards*) and project specific conditions as enumerated in the project SPL will be met.

4. A District Stormwater Connection Permit is likely to be issued based on proposed plans.

The City of Tigard reasonably expects to obtain a District Stormwater Connection Permit based on proposed plans for the project.

5. Location of development and site planning minimizes incursion into the Vegetated Corridor.

Project encroachments have been minimized to the extent practicable by limiting the project footprint to areas of existing development and areas already used for recreation. The replacement boarding dock will occupy the same footprint as the existing boarding dock, with no increase in coverage. The proposed accessible river access dock is the minimum size possible that allows for an accessible launch with a transfer bench and guard rails as well as float area for staging and/or other concurrent uses. Grading areas necessary to ensure level walk surfaces on the replacement boarding dock and proposed accessible river access are the minimum necessary to achieve this purpose and maintain a stable slope. The path to the proposed accessible river access is 8 feet wide, which is less than the width for paths meeting the allowed use of Section 3.05.8. The alignment of the proposed path was selected to provide the most direct route possible from accessible parking spaces while minimizing grade changes and avoiding mature trees.

Because the project is for river access, it could not be located further than 30 feet from the two-year 24-hour design storm elevation; however, given the minimal new impervious surface area associated with the project (753 square feet for the new path) and that there are no new pollutant-generating impervious surfaces proposed, it is reasonably certain that the project will not result in negative impacts to the water quality functions within the project area. All other proposed project elements are comprised of pervious materials associated with floating structures.

6. No practicable alternative to the location of the development exists that will not disturb the Sensitive Area or Vegetated Corridor.

As the intent of the project is to provide continued river access at the existing boarding dock and provide a new river access that is accessible to all users, including wheelchair users, there are no alternative locations that would not result in some disturbance to Sensitive Areas or the VC. Given the existing river access and extent of existing development associated with the river access and existing recreational areas, these impacts have been minimized compared to other sites where these uses are not present already.

7. The proposed encroachment provides public benefits.

The proposed project will maintain an existing river access and provide an accessible river access option, which will assist in the fulfillment of the City of Tigard's strategic plan vision for "an equitable community that is walkable, healthy, and accessible for everyone.[2]"

The existing timber boarding dock was installed in 1997 following damage to the previous dock during the 1996 flood. The boarding dock is in degraded condition typical for the materials and age of the structure. Sediment has accumulated beneath the boarding dock over the years, leading to an unlevel walk surface on the boarding ramp. The degraded condition and uneven surface have reduced the safety of the existing boarding dock.

Currently the existing boat ramp and boarding dock provide access to the river for motorized watercraft, non-motorized watercraft, and other users such as swimmers and fishers. During the summer months when park and river use are high, the shared access among these users results in motorized boats coming in close proximity to smaller watercrafts and swimmers. In addition, access to the boat ramp for motorized watercraft requires a trailer being backed onto the ramp, which can lead to additional conflicts between motorized users and others wishing to access the boarding dock. An alternative river access location is needed to reduce these user conflicts and improve user safety.

There are no City of Tigard Parks with accessible river access capable of allowing wheelchair users safe and independent access to the water with their non-motorized watercraft. The Tigard Parks and Recreation System Plan (system plan) adopted in January 2022 identifies accessibility for parks and recreation services among the top priorities. The system plan was developed with engagement from the community and identifies the proposed project as a recommended enhancement that will help realize the vision of the system plan. In addition, the Tualatin River is designated as a National Water Trail. Providing the proposed accessible river access will satisfy a need for equitable and accessible access to the Tualatin River, a nationally recognized public recreational resource.

In addition to the recreational and accessibility public benefits provided by the project, through the proposed on-site mitigation and enhancement activities, the City of Tigard is committed to providing full mitigation for all encroachments beyond the standards required by CWS. The mitigation and enhancements will protect and enhance water quality and the resources that depend upon clean water. The total acreage of proposed VC mitigation and enhancement will be 25,653 square feet. This total exceeds the required mitigation and enhancement by 3,088 square feet and will be an additional water quality benefit. Additional discussion of the functions and values benefits of the proposed project is provided in Section 5.6, below.

[2] City of Tigard's Strategic Plan is available online at https://www.tigard-or.gov/your-government/strategic-plan.

5.6 Discussion of Wetland and Vegetated Corridors Functions and Values

As a Tier 2 Alternatives Analysis is necessary for the proposed project, a function and values assessment is required for the sensitive areas and vegetated corridors on site. The functions and values of the Tualatin River and adjoining VCs were assessed using best professional judgement of group level functions and values.

Table 3. Stream Functional Assessment Results (Pre- and Post- Project)

Grouped Functions	Pre-Project		Post-Project	
	Function Group Rating	Value Group Rating	Function Group Rating	Value Group Rating
Hydrologic Functions	Low to Moderate	Moderate	Low to Moderate	Moderate
Geomorphic Functions	Moderate	Moderate	Moderate (+)	Moderate
Biological Functions	Moderate	Moderate	Moderate	Moderate
Water Quality / Chemical Functions	Low to Moderate	Low	Low to Moderate (+)	Low

Hydrologic functions include movement of water through the watershed and the variable transfer and storage of water along the stream channel, its floodplain, and associated alluvial aquifer. The hydrologic function was assessed through an evaluation of three specific functions, including surface water storage, sub/surface transfer, and flow variation. The hydrology of the river within the project reach is influenced by freshwater flow from upstream. The hydrologic function has been altered due to the presence of dams and in-line storage reservoirs in the watershed, which influence local channel dynamics, resulting in changes in peak flow and timing and low water levels. Changes in the contributing watershed, including reductions in the riparian reserve, artificial floodplain barriers, and increases in land development in the surrounding landscape, have also influenced the hydrologic function within the project reach. In addition, extensive water allocations in the watershed have artificially reduced low flow water levels. As such, the existing hydrologic function of the Tualatin River and VC in the project area is Low to Moderate.

The project includes a small amount of new impervious surface area from the new path, which slightly reduces the sub/surface transfer capacity within the project area. The sediment excavation/removal below the OHW will slightly increase the water storage capacity within the project area. The minor impacts of 4 new piles on subsurface water storage, sub/surface transfer, and flow variation are expected to be offset by the removal of 4 existing piles. The new piles will be in deeper water area than the existing piles to be removed, further reducing the negative impacts to the hydrologic function. The project includes plantings in the VC, which will increase the riparian reserve and contribute to improved hydrologic function. The overall effects of the proposed project on the hydrologic function of the Tualatin River and VC are negligible in the context of the overall watershed and the post-project hydrologic function will be Low to Moderate.

Dams and in-line storage reservoirs in the watershed reduce the opportunity for the project area to contribute to the hydrologic function of the river. Even so, downstream development is present in flood prone areas and species that benefit from flow variation are present in the river. As such, the value of the hydrologic function is Moderate, which will not change as a result of the proposed project.

Geomorphic functions encompass hydraulic and sediment transport processes that generate variable forces within the channel and the variable input, transfer and storage of sediment within the channel and adjacent environs that are generally responsible for channel form at multiple scales. The geomorphic function was assessed through an evaluation of two specific functions, including sediment continuity and substrate mobility. Generally, the project reach has reduced geomorphic function due to the presence of dams and in-line storage reservoirs within the watershed and development within the surrounding landscape. Upstream tributaries and local channel dynamics continue to supply sediment; however, reductions in the riparian reserve and urbanization have modified water currents and movement of sediments, contributing to reduced geomorphic functions. The existing geomorphic function of the Tualatin River and VC in the project area is Moderate.

The proposed excavation and sediment removal areas are relatively small and are not expected to reduce sediment supply in the watershed. There will be a local improvement in the geomorphic function as a result of the removal of the remnant wood piles. The existing wood piles have resulted in localized sediment accumulation and their removal is expected to restore sediment continuity in the area. The location of the proposed piles in a deeper portion of the river is not expected to result in the same sediment accumulation pattern. The impacts to substrate continuity and mobility associated with the proposed path and new piles will be more than offset by the removal of the existing piles and the proposed plantings in the VC, which will locally increase the riparian reserve. Although the overall effects of the proposed project on the geomorphic function of the Tualatin River and VC are negligible in the context of the overall watershed, there will be modest local improvements as described above. As such, the post-project geomorphic function will be Moderate (+).

Dams and in-line storage reservoirs in the watershed reduce the opportunity for the project area to contribute to sediment balancing or sorting. Even so, species that benefit from sediment sorting are present in the river. As such, the value of the geomorphic function is Moderate, which will not change as a result of the proposed project.

Biological functions include processes that result in maintenance and change in biodiversity, trophic structure, and habitat within the stream channel. The biological function was assessed through an evaluation of three specific functions, including maintain biodiversity, create and maintain habitat (aquatic/riparian), and sustain trophic structure and composition. The reductions in riparian reserve and urbanization in the surrounding landscape have contributed to reduced biological functions within the project reach. Riparian reserves are fragmented and poorly connected. Aquatic habitat in the project area, including substrate, large wood, pool frequency and quality, off-channel habitat, and refugia, are not properly functioning or at risk of not properly functioning. The altered hydrologic and geomorphic functions discussed above contribute to reductions in biological functions within the project reach as riparian and aquatic habitats depend on these functions. Changes in flow due to the influence of dams and in-line storage reservoirs in the watershed and water withdrawals, including changes in peak flow and timing and low water levels, negatively affect biological function. Even so, the Tualatin River and VC in the project area support a wide variety of fish and wildlife species, including ESA-listed salmonids. As such, the existing biological function of the Tualatin River and VC in the project area is Moderate.

All development within the Tualatin River and VC has the potential to result in the loss of biological productivity. Overwater structures and piles are associated with negative effects on ESA-listed salmon; however, the project includes modest, local improvements to biological functions by improving the riparian reserve in the VC of the project site and removing deteriorating piles and floats. The other design features (e.g., grated walk surfaces, encapsulated flotation material, and pile caps that prevent perching) and construction management measures (e.g., pollution and debris control, timing of in-water work during the preferred IWWW, using a vibratory hammer) will minimize the negative impacts associated with the new overwater structures and piles.

The overall effects of the proposed project on the biological function of the Tualatin River and VC are negligible in the context of the overall watershed, and the modest local impacts will be adequately off-set by riparian reserve improvements and deteriorating structure removal. As such, the post-project biological function will be Moderate.

The project reach of the Tualatin River lacks diverse aquatic habitat or the opportunity to provide significant habitat contributions. Although there will be a slight increase in the opportunity for the project area to support habitat through riparian plantings, it is insignificant in the context of the larger river and VC system. As such, the value of the biological function is Moderate, which will not change as a result of the proposed project.

Water quality / chemical functions encompass processes that govern the cycling, transfer, and regulation of energy, nutrients, chemicals and temperature in surface and groundwater, and between the stream channel and associated riparian system. The water quality function was assessed through an evaluation of three specific functions, including nutrient cycling, chemical regulation, and thermal regulation. Water quality is generally poor throughout the Lower Tualatin River, as degraded riparian habitat, effluent outfalls, agricultural and urban runoff, and physical disturbances to local stream systems have all led to increased chemical and nutrient contamination. The existing piles and boarding dock are in degraded condition and are assumed to be creosote-treated. The riparian vegetation structure within the VC of the project area is limited due to the existing use of the site as a park, though some trees are present. As such, the existing water quality function of the Tualatin River in the project area is Low to Moderate.

The removal of existing degraded, treated piles and floats will eliminate a source of chemical contamination. During project construction, localized, temporary impacts to water quality will result from increased suspended sediment during piling removal and installation and excavation/grading. The proposed dock floats, gangway, and piles will be constructed using non-toxic materials. The dock provides some water shading, however, the small size of the dock floats in the overall context of the basin make the shading contribution insignificant. The riparian plantings in the VC will contribute to local improvements in nutrient cycling, chemical regulation, and thermal regulation. The overall effects of the proposed project on the water quality function of the Tualatin River and VC are negligible in the context of the overall watershed; however, there will be long term local improvements that more than adequately off-set temporary project impacts during construction. As such, the post-project water quality function will be Low to Moderate (+).

The project area is not used as a drinking water source. Given the urban setting of the project area, there is little opportunity for the project area to contribute to improved water quality function. As such, the value of the water quality function is Low, which will not change as a result of the proposed project.

6.0 REFERENCES

City of Tigard. 2020. City of Tigard Strategic Plan 2020-2025. Available online: https://www.tigard-or.gov/your-government/strategic-plan.

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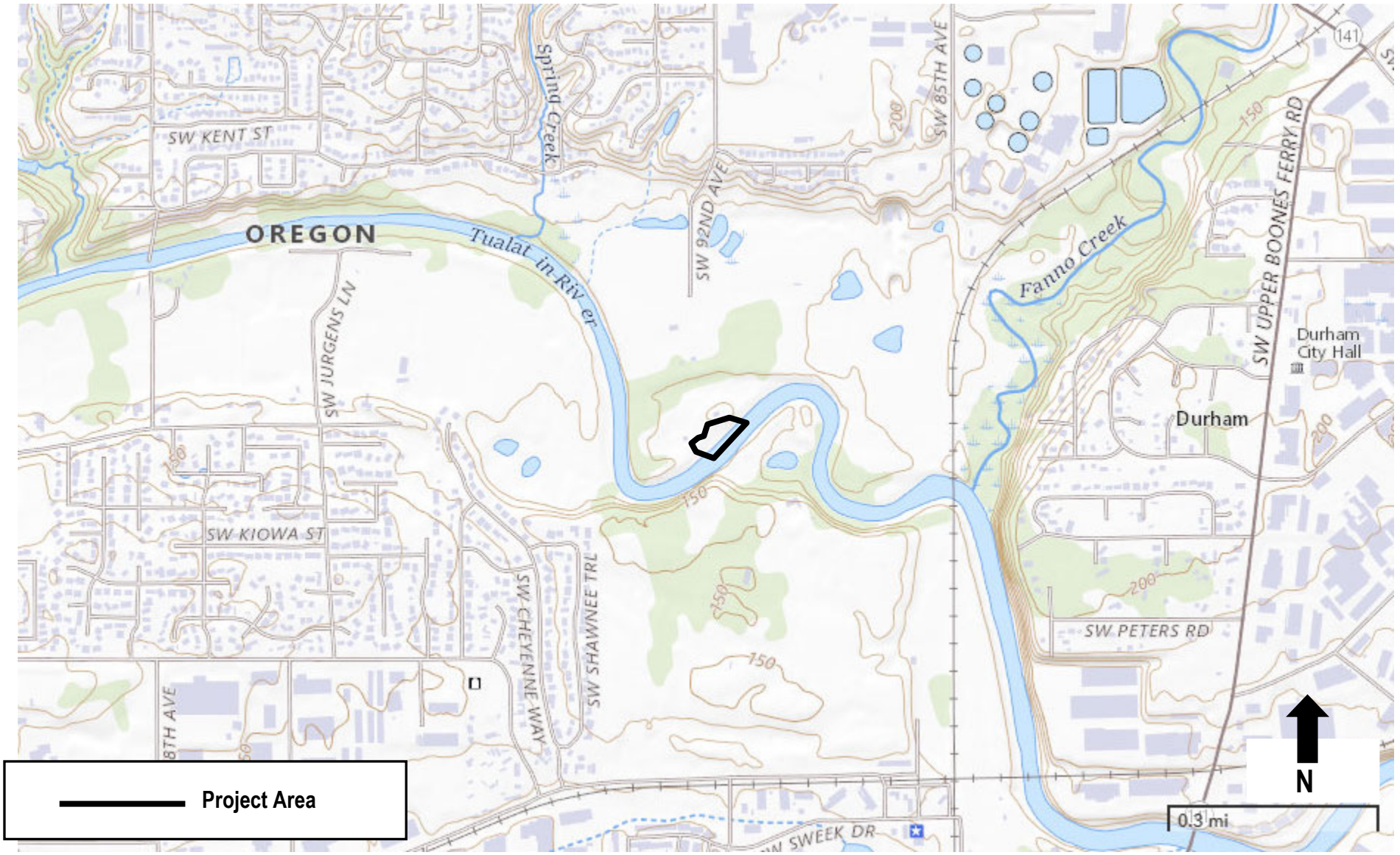
Nadeau, T-L., D. Hicks, C. Trowbridge, N. Maness, R. Coulombe, N. Czarnomski. 2018. Stream Function Assessment Method for Oregon (SFAM, Version 1.0) Oregon Dept. of State Lands, Salem, OR, EPA 910-D-18-001, U.S. Environmental Protection Agency, Region 10, Seattle, WA.

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Appendix A

Figures



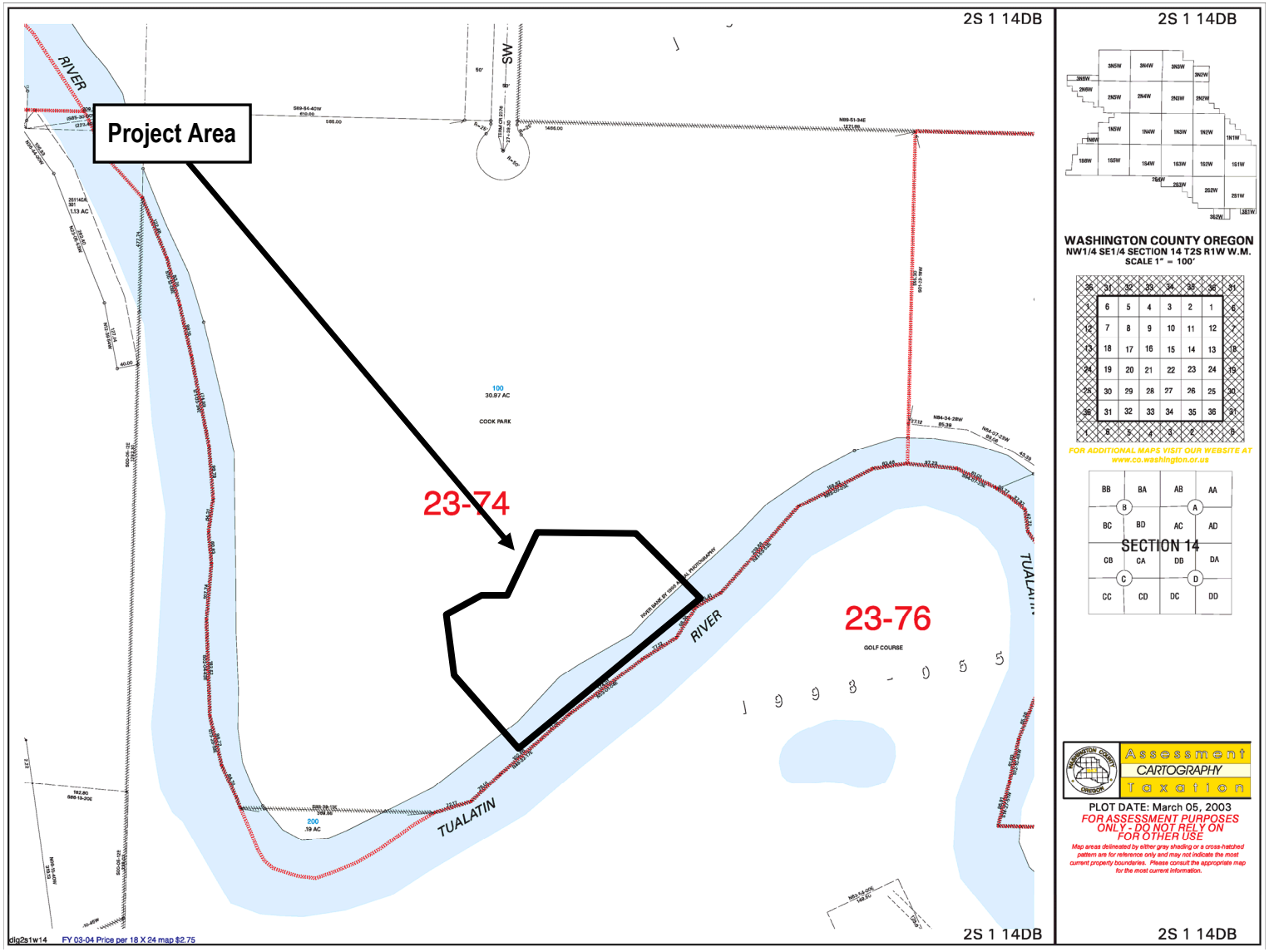


Project #7521
4/20/2023

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General Location and Topography
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
United States Geological Survey (USGS) Beaverton, Oregon 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE
1A

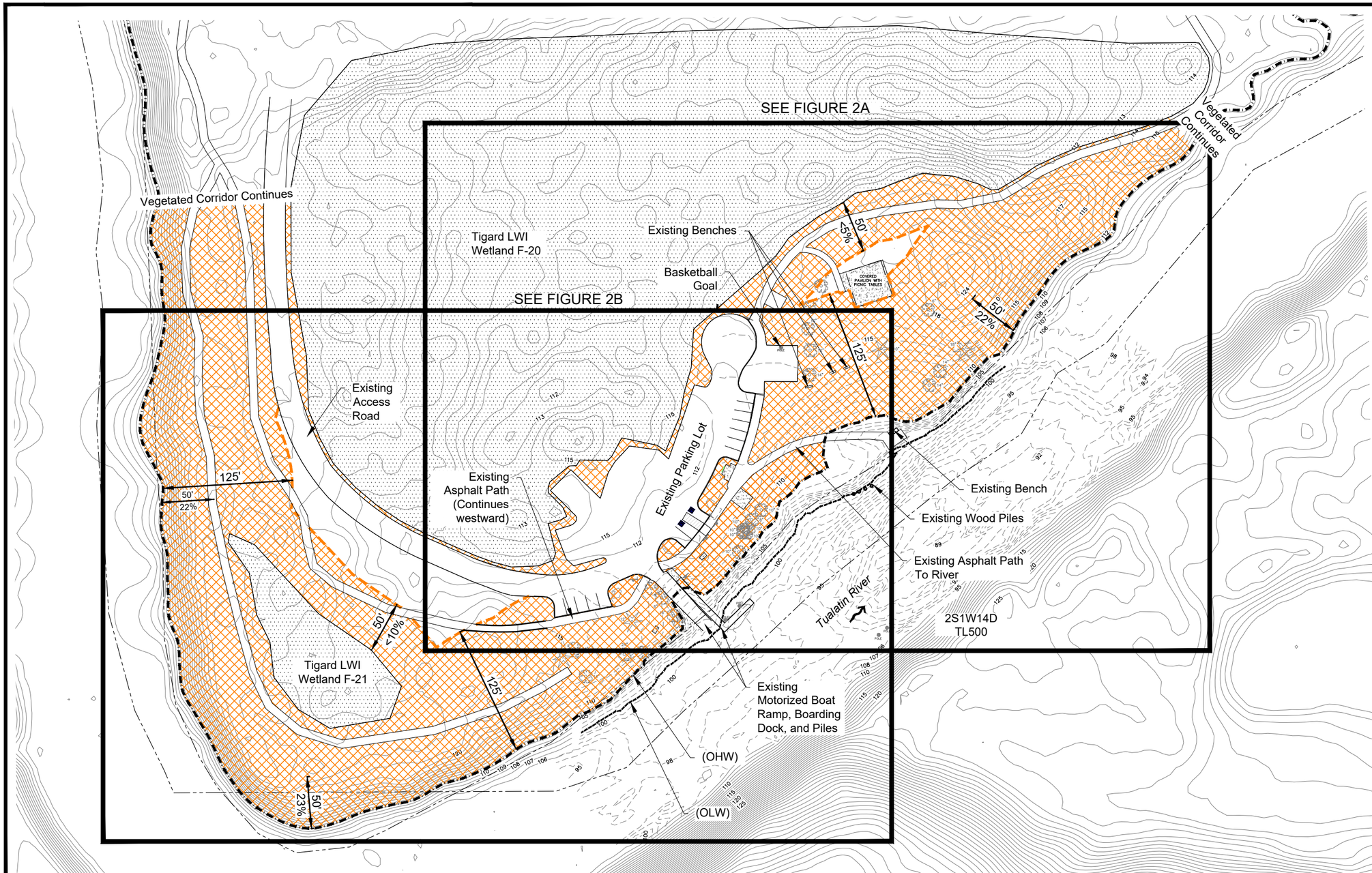


Project #7521
4/20/2023

Pacific Habitat Services, Inc.
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Tax Lot Map
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon
The Oregon Map (ormap.net)

FIGURE
1B



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Phone: (503) 570-0800 Fax (503) 570-0855

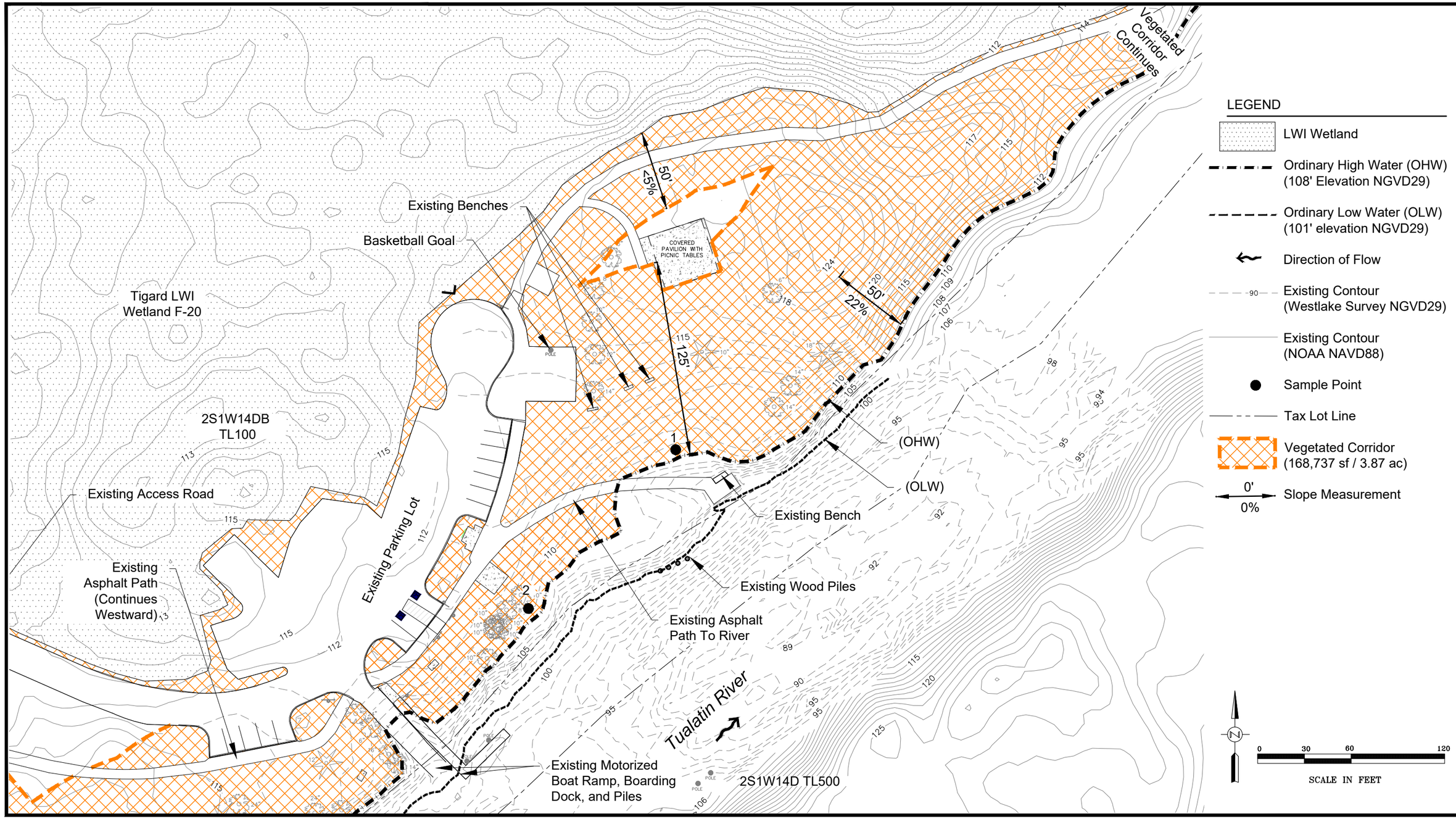
Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum Ordinary high water (OHW) elevation flagged by Pacific Habitat Services (PHS) and surveyed by the Westlake Consultants Inc. Interpolated USGS gage data from stations on the Tualatin River confirmed the OHW elevation delineated by PHS in the project area. The Ordinary Low Water (OLW) elevation was determined by Flowing Solutions based on multiple field visits during the low water season. Plans provided by Flowing Solutions. NOAA existing contours obtained from NOAA Office of Coastal Management and are from the 2014 Oregon DOGAMI LiDAR NAVD88 vertical datum. The approximate boundaries of Tigard LWI wetlands in the project vicinity were confirmed in the field and have an estimated accuracy of +/- 5 feet.

Existing Conditions Overview
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 2

12-1-2023

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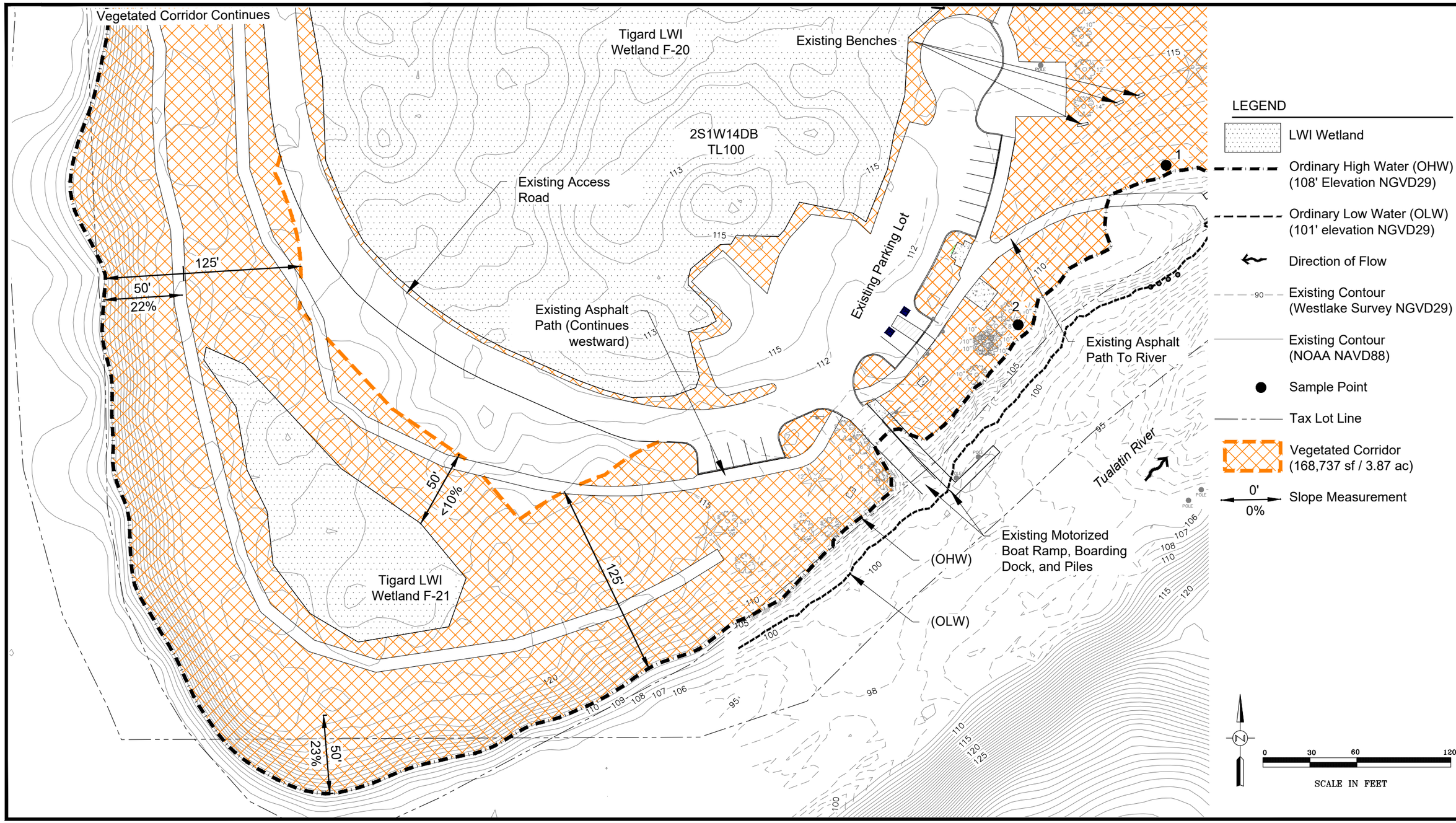
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Existing Conditions
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 2A

12-1-2023

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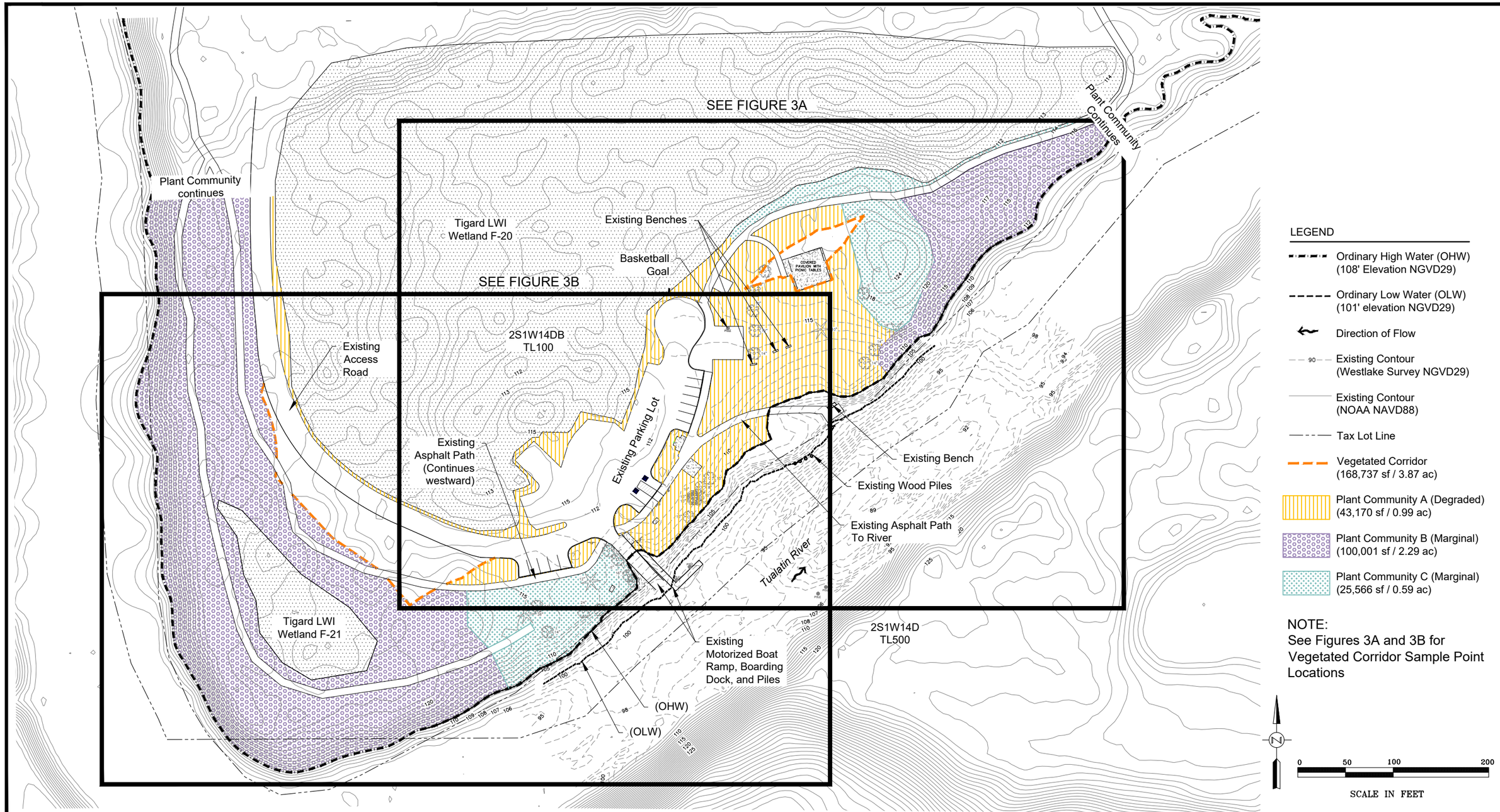
Existing Conditions

Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE
2B

12-1-2023

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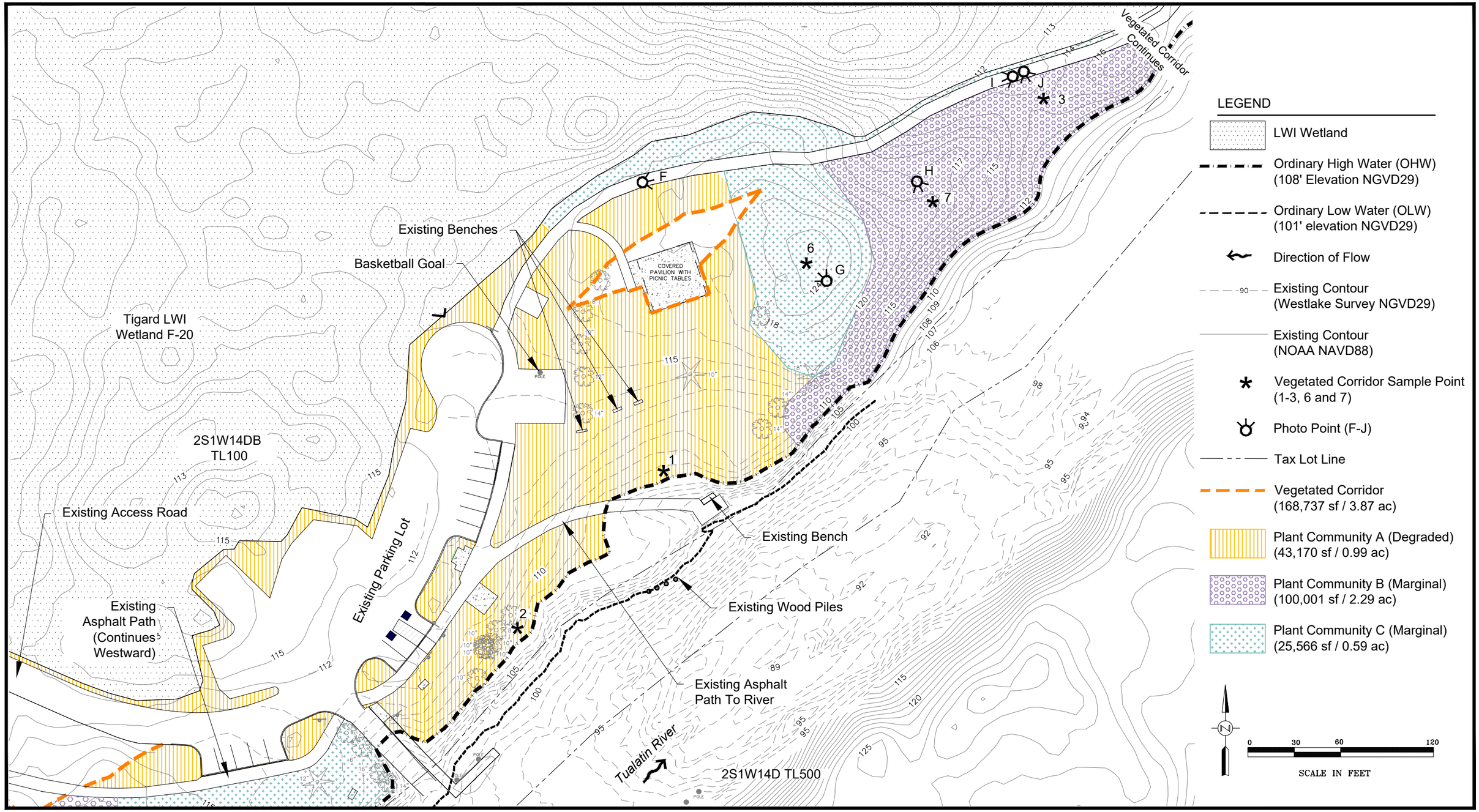
Vegetated Corridor Plant Communities Overview

Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 3

12-1-2023

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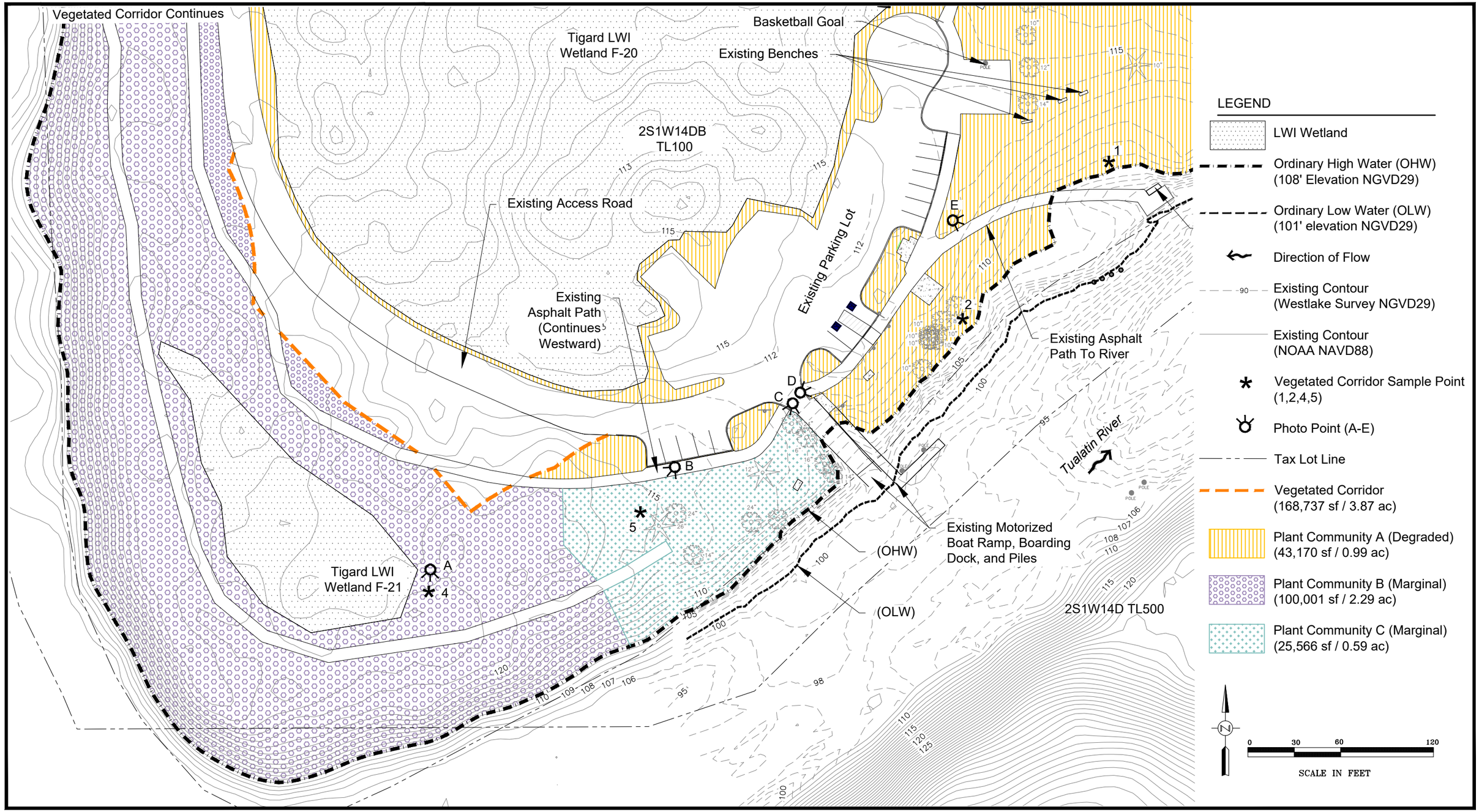
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Vegetated Corridor Plant Communities

Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 3A

12-1-2023



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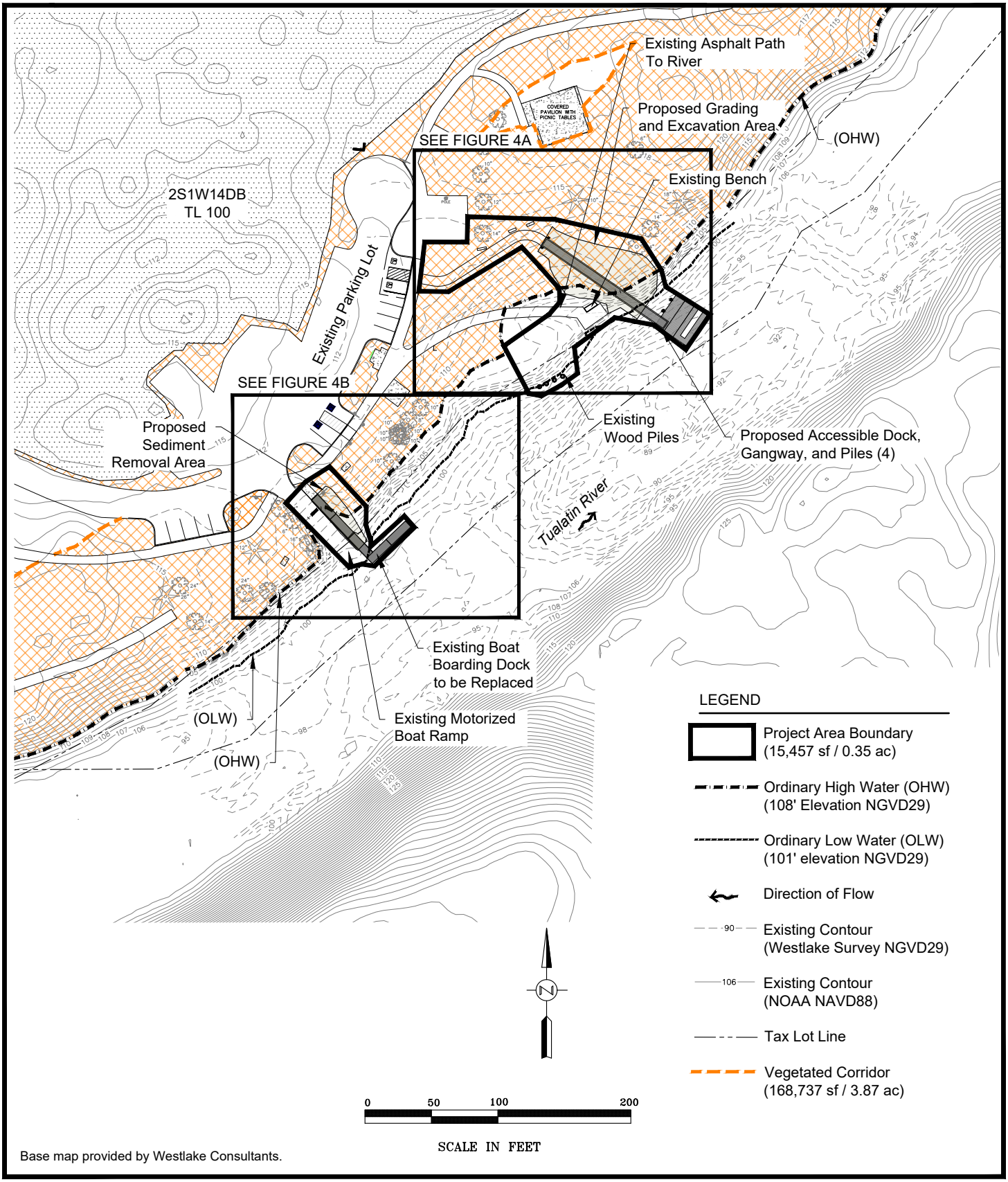
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Vegetated Corridor Plant Communities

Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE
3B

12-1-2023



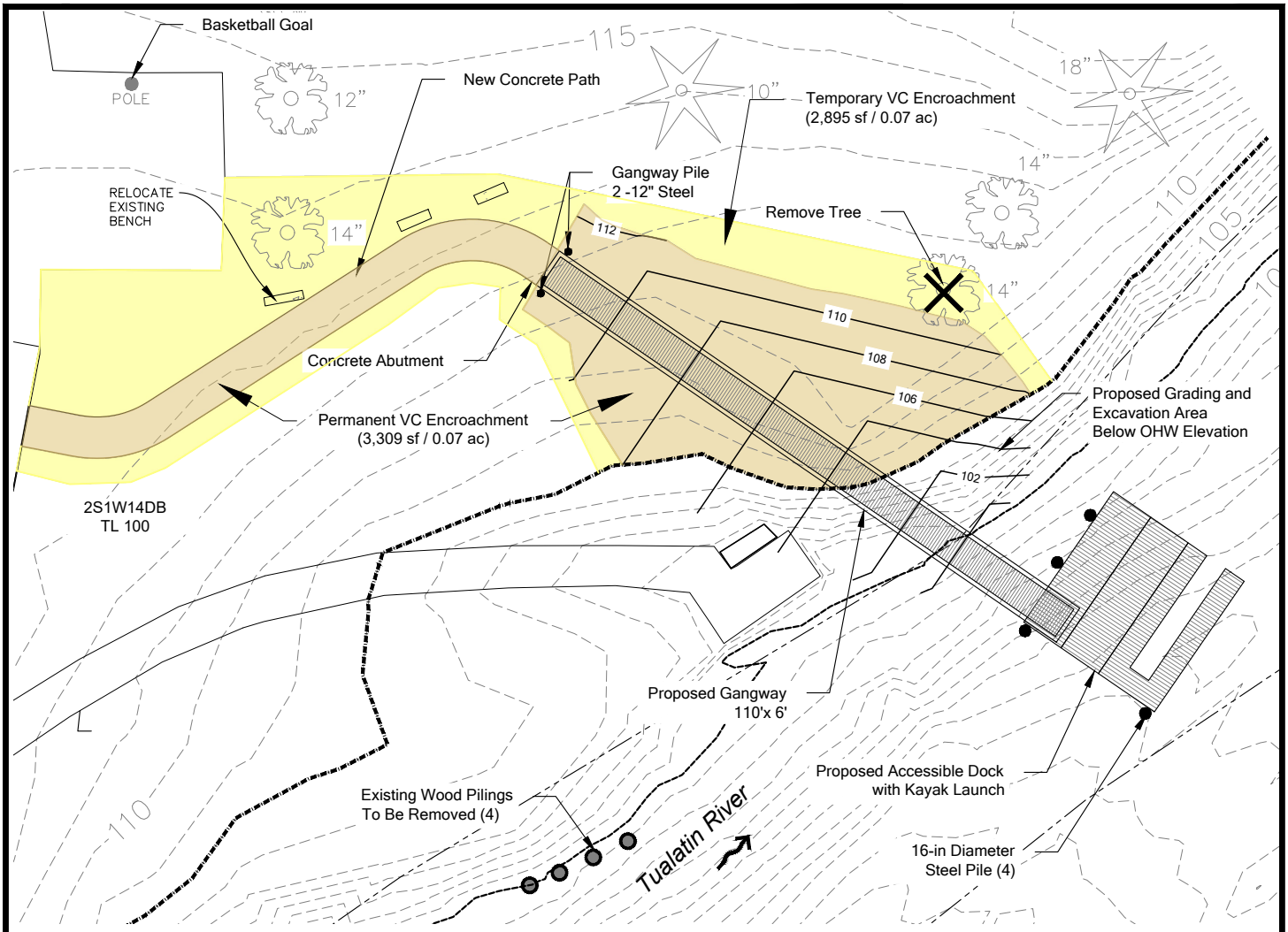
Base map provided by Westlake Consultants.

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Site Plan Overview and Sheet Index
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE
4

12-1-2023



NOTES:

1. See Figure 5 for Demolition and Erosion Control Plan.
2. Impacts below the OHW elevation under review by US Army Corps of Engineers (NWP-1994-897-1) and Oregon Department of State Lands (64652-RF)

LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
- Tax Lot Line
- Vegetated Corridor Permanent Encroachment (3,554 sf / 0.08 ac)
- Vegetated Corridor Temporary Encroachment (3,438 sf / 0.08 ac)

0 15 30 60

SCALE IN FEET

Base map provided by Westlake Consultants.

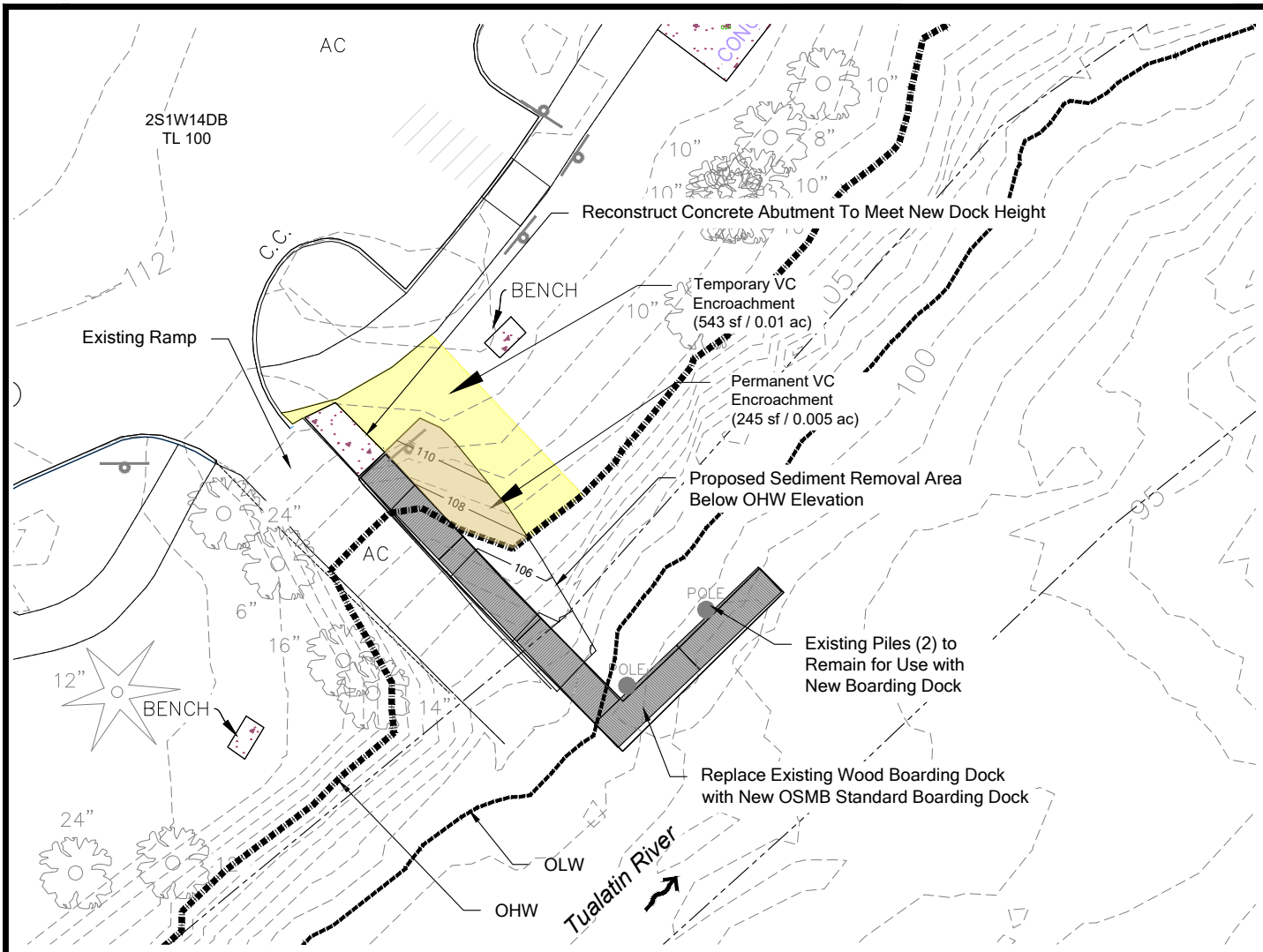
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Proposed Site Plan and Grading for Accessible Ramp and Dock
Vegetated Corridor Encroachments

Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4A

12-1-2023



NOTES:

1. See Figure 5 for Demolition and Erosion Control Plan.
2. Impacts below the OHW elevation under review by US Army Corps of Engineers (NWP-1994-897-1) and Oregon Department of State Lands (64652-RF)

LEGEND

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- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 Existing Contour (Westlake Survey NGVD29)
- 106 Proposed Contour
- Tax Lot Line
- Vegetated Corridor Permanent Encroachment (3,554 sf / 0.08 ac)
- Vegetated Corridor Temporary Encroachment (3,438 sf / 0.08 ac)

0 15 30 60

SCALE IN FEET

Base map provided by Westlake Consultants.

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Boarding Dock Replacement and Sediment Removal Area
Vegetated Corridor Encroachment

Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

FIGURE 4B

12-1-2023

Tigard LWI
Wetland F-20

NOTE:
Access to Construction Staging Area
Through Existing Paved Park Roads.

Relocate Bench

New Concrete Path

Close, Fence and
Sign Access Route
During Construction

Construction
Staging Area in Existing
Parking Lot
(No VC Encroachment)

Existing Parking Lot

COVERED
PAVILION WITH
PICNIC TABLES

Silt Fence and
Construction Fence

Tree To Be
Removed

Proposed Accessible Dock,
Gangway, and Piles (4)

Floating Sediment Curtain
Around Proposed Grading Area

Protect Existing Access and Landing

Remove 4 Existing Pilling

Tualatin River

Proposed Sediment Removal Area

2S1W14D TL500

Replace Existing Boarding Dock

Reconstruct Concrete
Abutment To Meet
New Dock Height

(OHW)

(OLW)

Floating Sediment Curtain
Around Sediment Removal Area

Silt Fence and
Construction Fence

LEGEND

- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- 90 — Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line
- Vegetated Corridor (168,737 sf / 3.87 ac)
- Tree To Be Removed
- Temporary Work Pad
- Grading Area
- x — Sediment Fence
- o — Floating Curtain

N

0 30 60 120

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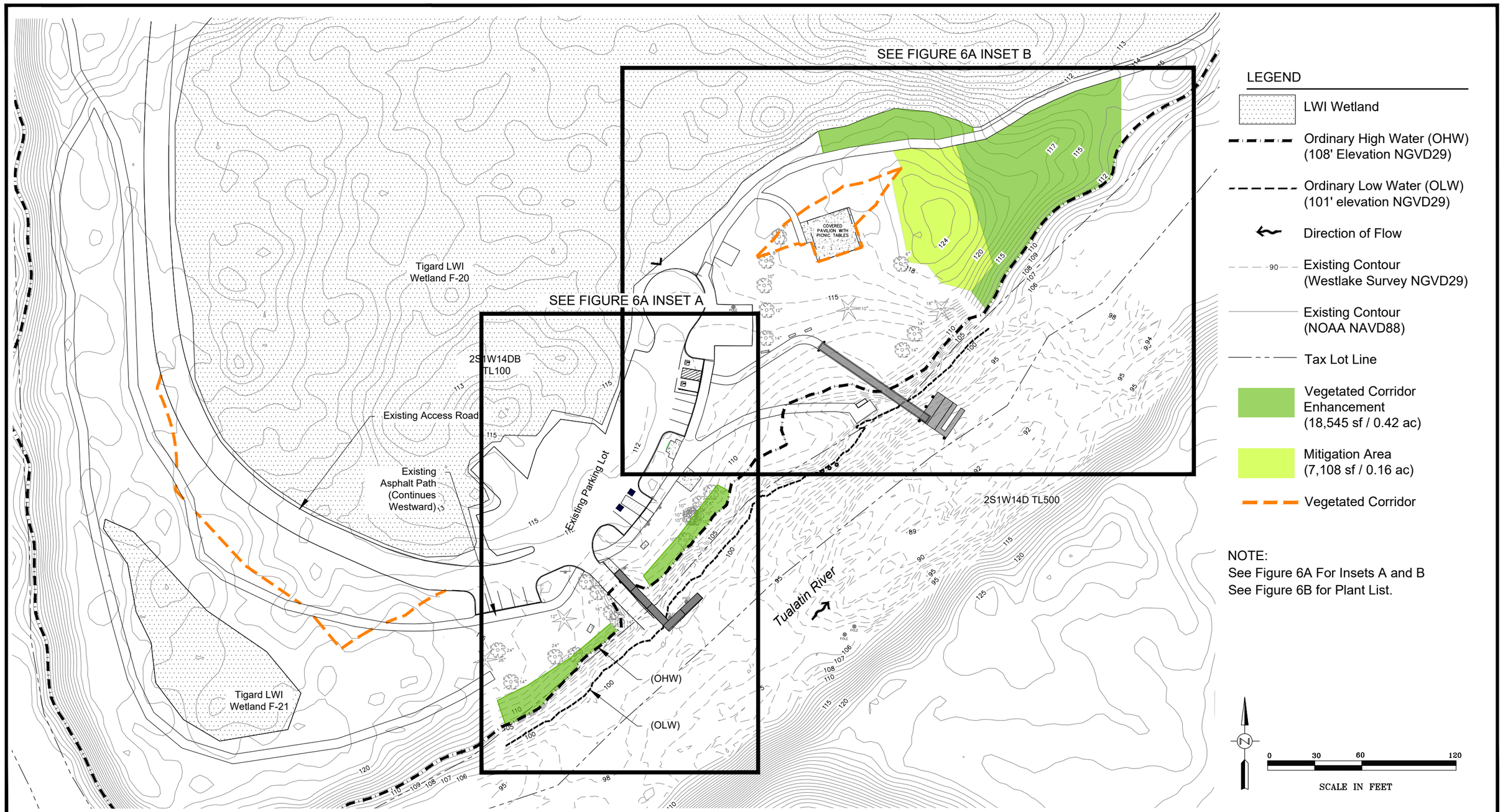
PHS
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Survey Provided by Westlake Consultants, Inc. using the Oregon Portland Zone NAD83 coordinate system and NGVD29 vertical datum
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Demolition and Erosion Control Plan
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE
5

12-1-2023



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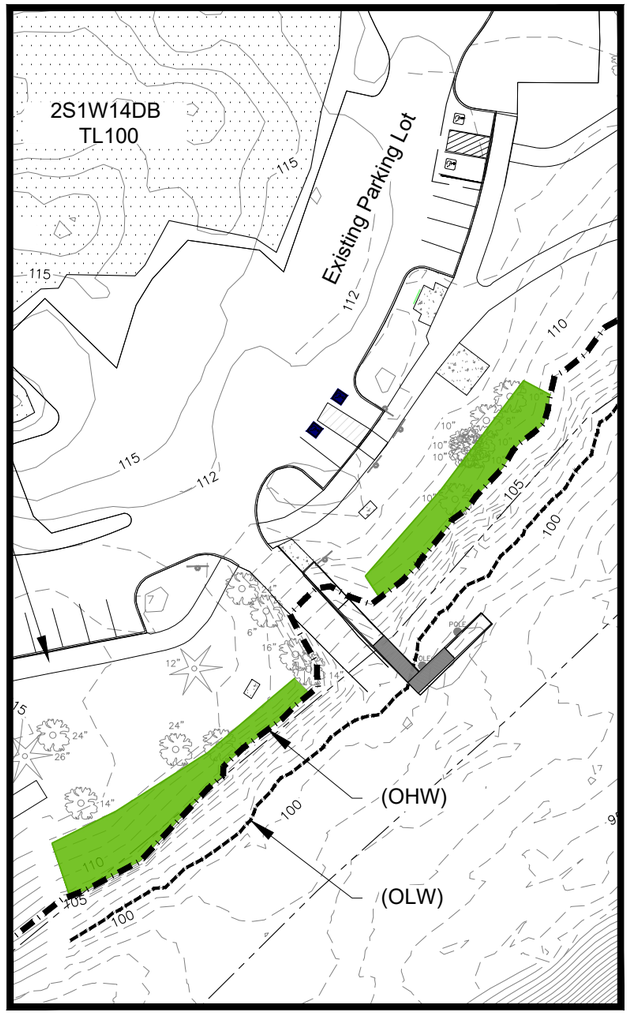
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Vegetated Corridor Enhancement and Mitigation Overview

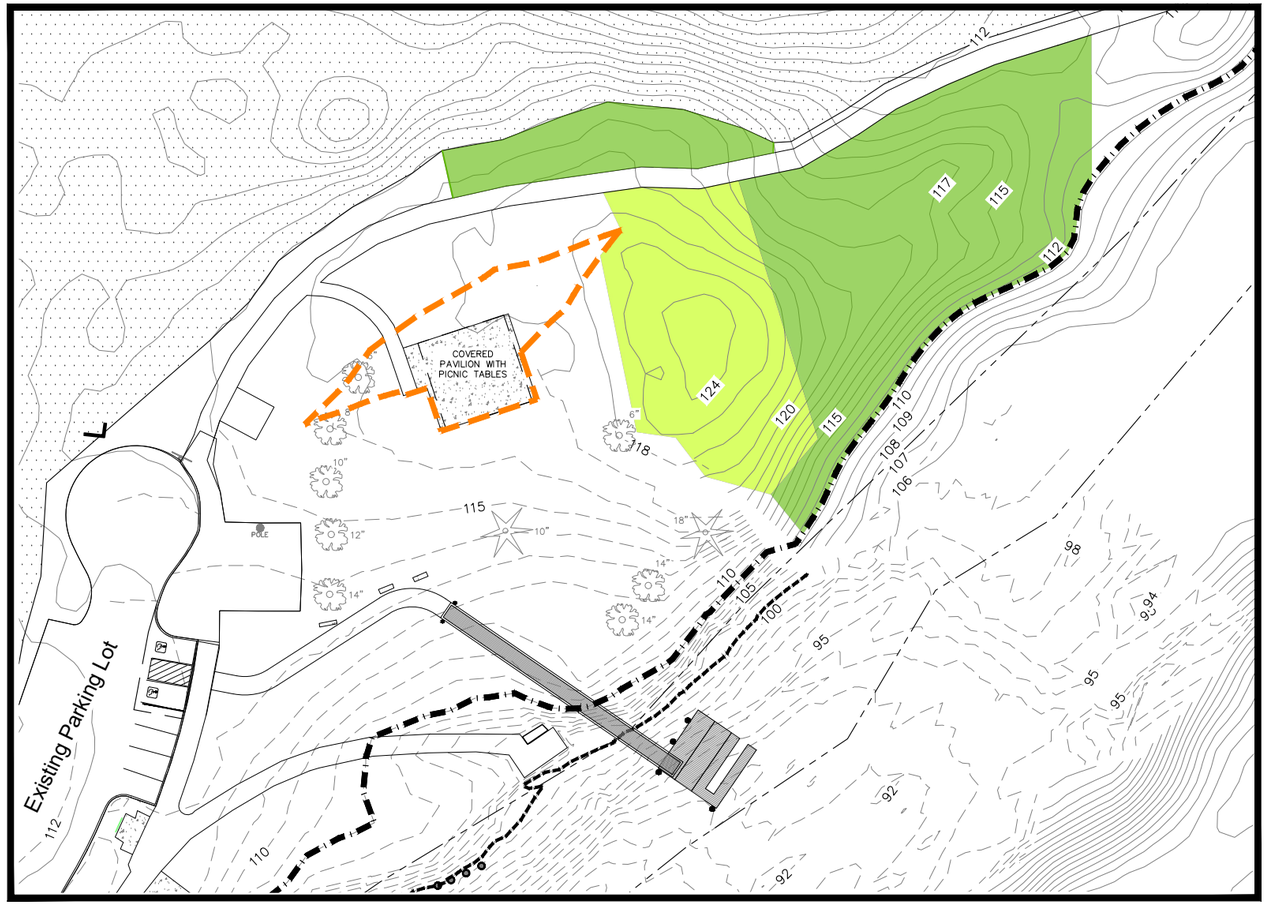
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 6

12-1-2023



INSET A



INSET B

LEGEND

- LWI Wetland
- Ordinary High Water (OHW) (108' Elevation NGVD29)
- Ordinary Low Water (OLW) (101' elevation NGVD29)
- Direction of Flow
- Existing Contour (Westlake Survey NGVD29)
- Existing Contour (NOAA NAVD88)
- Tax Lot Line
- Vegetated Corridor Enhancement (20,317 sf / 0.47 ac)
- Mitigation Area (7,108 sf / 0.16 ac)
- Vegetated Corridor

N

0 30 60 120

SCALE IN FEET

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Vegetated Corridor Enhancement and Mitigation Plan (Insets A and B)

Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 6A

12-1-2023

Species (Latin name)	Common Name	Quantity	Form
Enhancement Areas			
Trees			
Acer circinatum	Vine maple	TBD*	2 gallon container
Acer macrophyllum	Big-leaf maple	TBD*	2 gallon container
Cornus nuttallii	Western flowering dogwood	TBD*	1 gallon container
Pseudotsuga menziesii	Douglas-fir	TBD*	2 gallon container
Shrubs			
Amelanchier alnifolia	Serviceberry	TBD*	2 gallon container
Holodiscus discolor	Oceanspray	TBD*	1 gallon container
Mahonia aquifolium	Tall Oregon grape	TBD*	1 gallon container
Rubus parviflorus	Thimbleberry	TBD*	1 gallon container
Symphoricarpos albus	Snowberry	TBD*	1 gallon container
*Final quantities will be determined based on the quantities of existing native trees and shrubs			
Mitigation Area			
Trees (18)**			
Acer circinatum	Vine maple	5	2 gallon container
Acer macrophyllum	Big-leaf maple	3	2 gallon container
Cornus nuttallii	Western flowering dogwood	5	1 gallon container
Pseudotsuga menziesii	Douglas-fir	5	2 gallon container
Shrubs (355)			
Amelanchier alnifolia	Serviceberry	71	2 gallon container
Holodiscus discolor	Oceanspray	71	1 gallon container
Mahonia aquifolium	Tall Oregon grape	71	1 gallon container
Rubus parviflorus	Thimbleberry	71	1 gallon container
Symphoricarpos albus	Snowberry	71	1 gallon container

**Tree quantities reduced from standard based on existing canopy.

Botanical Name	Common Name	% of Mix by Weight
Seed List for Bare Ground		
Achillea millifolium	Common yarrow	2
Bromus carinatus	California brome	25
Elymus glaucus	Blue wildrye	25
Hordeum branchyantherum	Meadow barley	33
Lupinus rivularis	Riverbank lupine	15
Triticum aestivum x Elytrigia elongata	Regreen	30 lbs/acre

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Vegetated Corridor Enhancement and Mitigation Plant List
Cook Park Accessible River Access and Boarding Dock Replacement - Tigard, Oregon

FIGURE 6B

11-28-2023

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Appendix B

Wetland Determination Data Forms



PHS # 7521

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: **Cook Park River Access** City/County: **Tigard/Washington** Sampling Date: **5/12/2022**

Applicant/Owner: **City of Tigard** State: **OR** Sampling Point: **1**

Investigator(s): **TF/CT** Section, Township, Range: **Section 14DB, 2 South, 1 West**

Landform (hillslope, terrace, etc.:) **Slope** Local relief (concave, convex, none): **None** Slope (%): **1**

Subregion (LRR): **A** Lat: **45.3944** Long: **-122.7714** Datum: **WGS84**

Soil Map Unit Name: **Chehalis silt loam, occasional overflow** NWI Classification: **None**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**X**	No		**Is Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes	**X**	No		
Wetland Hydrology Present?	Yes		No	**X**	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: ____)			
1			
2			
3			
4			
	0	= Total Cover	
Sapling/Shrub Stratum (plot size: ____)			
1			
2			
3			
4			
5			
	0	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Poa species***	**60**	**X**	**(FAC)**
2 ***Schedonorus arundinaceus***	**10**		**FAC**
3 ***Plantago lanceolata***	**10**		**FACU**
4 ***Leucanthemum vulgare***	**5**		**FACU**
5 ***Leontodon saxatilis***	**5**		**FACU**
6 ***Trifolium repens***	**5**		**FAC**
7 ***Chamomilla suaveolens***	**5**		**(UPL)**
8 ***Cirsium arvense***	**2**		**FAC**
	102	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **10**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

____ 1- Rapid Test for Hydrophytic Vegetation

X 2- Dominance Test is >50%

____ 3-Prevalence Index is ≤ 3.0[1]

____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ 5- Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:

Herbs continued: Rumex crispus (FAC) 2%

SOIL PHS # **7521** Sampling Point: **1**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	**10YR 3/2**	**95**	**10YR 3/4**	**5**	**C**	**M**	**Silt Loam**	**Fine**
8-18	**10YR 3/2**	**60**	**7.5YR 3/4**	**10**	**C**	**M**	**Silt Loam**	**Fine+Medium**
8-18	**10YR 3/3**	**30**					**Silt Loam**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

	Histosol (A1)		Sandy Redox (S5)
	Histic Epipedon (A2)		Stripped Matrix (S6)
	Black Histic (A3)		Loamy Mucky Mineral (F1) **(except MLRA 1)**
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)
	Depleted Below Dark Surface (A11)		Depleted Matrix (F3)
	Thick Dark Surface (A12)	**X**	Redox Dark Surface (F6)
	Sandy Mucky Mineral (S1)		Depleted Dark Surface (F7)
	Sandy Gleyed Matrix (S4)		Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

	2 cm Muck (A10)
	Red Parent Material (TF2)
	Very Shallow Dark Surface (TF12)
	Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes X No

Remarks:

Soils are disturbed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

	Surface Water (A1)		Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**		Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
	High Water Table (A2)				
	Saturation (A3)		Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)		Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)		Oxidized Rhizospheres along Living Roots (C3)		Geomorphic Position (D2)
	Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	Iron Deposits (B5)		Recent Iron Reduction in Plowed Soils (C6)		Fac-Neutral Test (D5)
	Surface Soil Cracks (B6)		Stunted or Stressed Plants (D1) **(LRR A)**		Raised Ant Mounds (D6) **(LRR A)**
	Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated Concave Surface (B8)				

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes		No **X**	Depth (inches):	**>18**
Saturation Present? (includes capillary fringe)	Yes		No **X**	Depth (inches):	**>18**

Wetland Hydrology Present?

Yes **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PHS # 7521

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: **Cook Park River Access** City/County: **Tigard/Washington** Sampling Date: **5/12/2022**

Applicant/Owner: **City of Tigard** State: **OR** Sampling Point: **2**

Investigator(s): **CT/TF** Section, Township, Range: **Section 14DB, 2 South, 1 West**

Landform (hillslope, terrace, etc.:) **Slope** Local relief (concave, convex, none): **None** Slope (%): **1**

Subregion (LRR): **A** Lat: **45.3940** Long: **-122.7719** Datum: **WGS84**

Soil Map Unit Name: **Chehalis silt loam, occasional overflow** NWI Classification: **None**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**X**	No		**Is Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes		No	**X**	
Wetland Hydrology Present?	Yes		No	**X**	

Remarks:

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)			
1 ***Fraxinus latifolia***	**25**	**X**	**FACW**
2			
3			
4			
	25	= Total Cover	
Sapling/Shrub Stratum (plot size: **15**)			
1 ***Fraxinus latifolia***	**5**	**X**	**FACW**
2			
3			
4			
5			
	5	= Total Cover	
Herb Stratum (plot size: **5**)			
1 ***Agrostis sp***	**25**	**X**	**(FAC)**
2 ***Poa trivialis***	**25**	**X**	**FAC**
3 ***Trifolium repens***	**15**		**FAC**
4 ***Bellis perennis***	**10**		**(UPL)**
5 ***Poa annua***	**5**		**FAC**
6 ***Hypochaeris radicata***	**5**		**FACU**
7 ***Rumex crispus***	**5**		**FAC**
8			
	90	= Total Cover	
Woody Vine Stratum (plot size: ____)			
1			
2			
	0	= Total Cover	

% Bare Ground in Herb Stratum **10**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

____ 1- Rapid Test for Hydrophytic Vegetation

X 2- Dominance Test is >50%

____ 3-Prevalence Index is ≤ 3.0[1]

____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ 5- Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:

SOIL PHS # 7521 Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5YR 3/3	90	7.5YR 4/6	10	C	M	Sandy Loam	
2-5	10YR 4/3	95	7.5YR 4/6	5	C	M	Sandy Loam	
5-20	7.5YR 4/3	95	7.5YR 4/4	5	C	M	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) **(except MLRA 1)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes _____ **No X**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Stunted or Stressed Plants (D1) **(LRR A)**
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Fac-Neutral Test (D5)
- Raised Ant Mounds (D6) **(LRR A)**
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No **X**	Depth (inches):	
Water Table Present?	Yes		No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes		No **X**	Depth (inches):	**>20**

Wetland Hydrology Present?

Yes _____ **No X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators.

PHS # 7521

WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: **Cook Park River Access** City/County: **Tigard/Washington** Sampling Date: **11/21/2023**

Applicant/Owner: **City of Tigard** State: **OR** Sampling Point: **3**

Investigator(s): **TF** Section, Township, Range: **Section 14DB, 2 South, 1 West**

Landform (hillslope, terrace, etc.:) **Slope** Local relief (concave, convex, none): **None** Slope (%): **1**

Subregion (LRR): **A** Lat: **45.3951** Long: **-122.7704** Datum: **WGS84**

Soil Map Unit Name: **Chehalis silt loam, occasional overflow** NWI Classification: **None**

Are climatic/hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (if no, explain in Remarks)

Are vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) **Y**

Are vegetation ____ Soil ____ or Hydrology ____ naturally problematic? If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	**X**	No		**Is Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes		No	**X**	
Wetland Hydrology Present?	Yes		No	**X**	

Remarks:

VEGETATION - Use scientific names of plants.

		absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: **30**)				
1	***Fraxinus latifolia***	**70**	**X**	**FACW**
2				
3				
4				
		70	= Total Cover	
Sapling/Shrub Stratum (plot size: **15**)				
1	***Cornus alba***	**50**	**X**	**FACW**
2	***Physocarpus capitatus***	**20**	**X**	**FACW**
3	***Rubus ursinus***	**20**	**X**	**FACU**
4	***Rubus armeniacus***	**10**		**FAC**
5	***Sambucus racemosa***	**5**		**FACU**
		105	= Total Cover	
Herb Stratum (plot size: **5**)				
1	***Urtica dioica***	**15**	**X**	**FAC**
2	***Carex leptopoda***	**10**	**X**	**FAC**
3	***Tolmiea menziesii***	**15**	**X**	**FAC**
4	***Phalaris arundinacea***	**10**	**X**	**FACW**
5				
6				
7				
8				
		50	= Total Cover	
Woody Vine Stratum (plot size: ____)				
1				
2				
		0	= Total Cover	

% Bare Ground in Herb Stratum **60**

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: **7** (A)

Total Number of Dominant Species Across All Strata: **8** (B)

Percent of Dominant Species That are OBL, FACW, or FAC: **88%** (A/B)

Prevalence Index Worksheet:

Total % Cover of		Multiply by:	
OBL Species		x 1 =	**0**
FACW species		x 2 =	**0**
FAC Species		x 3 =	**0**
FACU Species		x 4 =	**0**
UPL Species		x 5 =	**0**
Column Totals	**0** (A)		**0** (B)

Prevalence Index =B/A = **#DIV/0!**

Hydrophytic Vegetation Indicators:

____ 1- Rapid Test for Hydrophytic Vegetation

X 2- Dominance Test is >50%

____ 3-Prevalence Index is ≤ 3.0[1]

____ 4-Morphological Adaptations[1] (provide supporting data in Remarks or on a separate sheet)

____ 5- Wetland Non-Vascular Plants[1]

____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:

SOIL PHS # 7521 Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	100					V Fine Sandy Lm	
8-16	10YR 3/3	50					V Fine Sandy Lm	
8-16	10YR 3/2	40	10YR 3/4	10	C	M	V Fine Sandy Lm	Medium
16-24	10YR 3/2	60	10YR 3/4	10	C	M	V Fine Sandy Lm	Medium and coarse
16-24	10YR 4/2	20					V Fine Sandy Lm	
16-24	10YR 3/3	10					V Fine Sandy Lm	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) **(except MLRA 1)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water stained Leaves (B9) **(Except MLRA 1, 2, 4A, and 4B)**
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Plowed Soils (C6)
- Stunted or Stressed Plants (D1) **(LRR A)**
- Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- Water stained Leaves (B9) **(MLRA1, 2, 4A, and 4B)**
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- X Fac-Neutral Test (D5)
- Raised Ant Mounds (D6) **(LRR A)**
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present?	Yes		No X	Depth (inches):	
Water Table Present?	Yes		No X	Depth (inches):	>24
Saturation Present? (includes capillary fringe)	Yes		No X	Depth (inches):	>24

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators.

Appendix C

Vegetated Corridor Sample Points Table
and
Photo documentation



Vegetated Corridor Sample Sites
Cook Park Accessible River Access and Boarding Dock Replacement

Plant Community	A			B				C		
Sample Point	**1**	**2**		**3**	**4**	**7**		**5**	**6**	
TREES										
Native										
Acer macrophyllum					60			30		
Alnus rubra						10				
Fraxinus latifolia		25		70	5	40			50	
Pseudotsuga menziesii					20					
Quercus sp.									10	
Sequoia sempervirens									10	
Thuja plicata					25	40		40	10	
Non native										
None										
SHRUBS & SAPLINGS										
Native										
Acer circinatum										
Cornus alba				35	5	5		5		
Corylus cornuta										
Fraxinus latifolia		5								
Mahonia aquifolium					10					
Oemleria cerasiformis										
Physocarpus capitatus				10		10		5		
Ribes species						5				
Rubus spectabilis				5						
Sambucus racemosa				5	2					
Spiraea douglasii					5					
Symphoricarpos albus				5	30	40		15		
Invasive										
Rubus armeniacus				20	20	10				
Non native										
None										
HERBS										
Native										
Carex leptopoda				5						
Echinocystis lobata					20					
Galium aparine								10		
Geum macrophyllum								2		
Rubus ursinus				20	20	30				
Tolmiea menziesii				10				3		
Invasive										
Cirsium arvense	2				15					
Hedera helix				10		40				
Phalaris arundinacea				25	10					
Non Native										
Agrostis species		25								
Bellis perennis		10						20	15	
Bromus species					60					
Chamomilla suaveolens	5									
Geranium robertianum						15			10	
Grass (various species)								25	40	
Hypochaeris radicata		5								
Lapsana communis					15					
Leontodon saxatilis	5									
Leucanthemum vulgare	5							5	15	
Plantago lanceolata	10									
Poa species	60	30								
Rumex crispus	2	5			2					
Schedonorus arundinaceus	10									
Taraxacum officinale								5	20	
Trifolium repens	5	15								
Urtica dioica				25	10	5		15		
	A		**Average**	**B**			**Average**	**C**		**Average**
Canopy cover	**0**	**25**	**13**	**70**	**80**	**65**	**72**	**60**	**60**	**60**
% Native Species	**0**	**25**	**13**	**67**	**60**	**72**	**67**	**61**	**44**	**53**
% Invasive Species	**2**	**0**	**1**	**22**	**13**	**20**	**19**	**0**	**0**	**0**
Total cover	**104**	**120**		**245**	**334**	**250**		**180**	**180**	



Photo A:

View to the south of Vegetated Corridor (VC) Sample Point 4 and Plant Community B.

Photo Date: August 18, 2023

Photo B:

View to the southwest of VC Sample Point 5 and Plant Community C.

Photo Date: November 21, 2023



Project #7521
11/27/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo Documentation
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon



Photo C:

View to the southwest of Plant Community C adjacent to the existing boarding dock and boat ramp to the Tualatin River.

Photo Date: May 12, 2022

Photo D:

View to the northeast of the open park landscape (Plant Community A and VC Sample Point 2), an existing concrete path and parking spaces, and the Tualatin River.

Photo Date: May 12, 2022



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo Documentation
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon



Photo E:

View to the east of the existing path to the Tualatin River in the location of the proposed accessible dock. Plant Community A and VC Sample Point 1 are present in this area above the OHW elevation.

Photo Date: May 12, 2022

Photo F:

View to the northeast of an existing paved path through the proposed mitigation and enhancement area. The VC associated with LWI Wetland F-20 is left (north) of the path and the VC of the Tualatin River is right (south) of the path.

Photo Date: November 21, 2023



Project #7521
11/27/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo Documentation
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon



Photo G:

View to the northwest of VC Sample Point 6, Plant Community C, and the proposed mitigation area.

Photo Date: November 21, 2023

Photo H:

View to the southeast of VC Sample Point 7, Plant Community B, and the eastern portion of the proposed enhancement area.

Photo Date: August 18, 2023





Photo I:

View to the southwest of an existing path adjacent to Plant Community B and the eastern portion of the proposed enhancement area.

Photo Date: November 21, 2023

Photo J:

View to the southeast of VC Sample Point 3, Plant Community B, and the eastern portion of the proposed enhancement area.

Photo Date: November 21, 2023



Project #7521
11/27/2023

Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo Documentation
Cook Park Accessible River Access and Boarding Dock Replacement
Tigard, Oregon

ATTACHMENT N – BIDDER'S STATEMENT OF QUALIFICATIONS
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

BIDDER'S STATEMENT OF QUALIFICATIONS
CITY OF TIGARD
COOK PARK ACCESSIBLE DOCK IMPROVEMENTS

Instructions:

1. The information provided in this form is part of the City's inquiry concerning bidder responsibility. Please print clearly or type. If you need more space, use plain paper.
2. This form supplements any information submitted in a "Prequalification Application." This form is not an amendment to a "Prequalification Application." Do not use this form as a bidder pre-qualification application.
3. Answer all questions. Submission of a form with unanswered questions, incomplete or illegible answers may result in a finding that you are not a responsible bidder.
4. Submit completed Bidder Responsibility Form with bid. Failure to submit this form with bid proposal packet may result in a non-responsive bid.

Contractor's number of years of Marine construction and steel pile installation experience _____ years
List five Marine construction and steel pile installation projects, with a similar nature and scale, that the Contractor has successfully completed within the last 10 years:

	Project Name & Owner	Year Completed	Contract Value
1.			
2.			
3.			
4.			
5.			

Contractor's Superintendent: _____

Superintendent's number of years of Marine construction and steel pile installation experience:
_____ years

List verifiable references for three recent projects:

	Project Name & Owner	Owner Contact Name	Contact Phone	Contact Email	Year Completed
1.					
2.					
3.					

1. Has your company ever been in breach of any contract for unperformed or defective work, or for lack of completing and submitting necessary contract documentation and/or proper invoicing?
   ☐Yes ☐No If "yes," please explain.

2. Has any employee or agent of your company ever been convicted of a criminal offense arising out of obtaining, attempting to obtain, or performing a public or private contract or subcontract?

☐Yes ☐No If "yes," please explain.

3. Has any employee or agent of your company been convicted under state or federal law of embezzlement, theft, forgery, bribery, falsification, or destruction of records, receiving stolen property or any other offense indicating a lack of business integrity or business honesty?
   ☐Yes ☐No If "yes," please explain.

4. Has your company or any employee or agent of your company been convicted under state or federal antitrust laws?
   ☐Yes ☐No If "yes," please explain.

5. Has any Officer or Partner of your organization ever been an Officer or Partner of another Organization that failed to complete a construction contract?
   ☐Yes ☐No If "yes," please explain.

6. During the past five years, has your company been charged with a failure to meet the claims of your subcontractors or suppliers?
   ☐Yes ☐No

Additional Remarks: List the question each additional remark relates to. If more space needed, attach additional sheet(s) and check the following box: ☐ Additional pages are attached to this Bidder Responsibility Form

The undersigned hereby declares that he or she is duly authorized to complete and submit this Bidder Statement of Qualifications Form and that the statements contained herein are true and correct as of the date set forth below. Incomplete, incorrect, or misleading information will be reason for a determination by City of non-responsibility.

Name of Company: _____

Authorized Signature: _____

Printed Name & Title: _____

Date: _____

ATTACHMENT D

Federal Requirements

1. **Compliance with Law:** Grantee shall comply with all federal, state and local laws, regulations, executive orders and ordinances applicable to the Agreement or to implementation of the Project, including without limitation 23 USC 206 and ORS 390.980 which makes funds available for the purposes of the Oregon Recreation Trails System Act. Without limiting the generality of the preceding sentence, Grantee shall, in its performance of its obligations under this Agreement and implementation of the Project, comply with the following laws and regulations:
    - 23 U.S.C. 206 Recreational Trails Program
    - 23 U.S.C. 104 (h), Recreational Trails Program Apportionments
    - 23 U.S.C. 106, Project Approval and Oversight
    - 23 U.S.C. 114, Convict Labor
    - FHWA Recreational Trails Program Guidance: located at https://www.fhwa.dot.gov/environment/recreational_trails/guidance/rtp9908_toc.cfm
    - 40 U.S.C 3141-3148, The Davis-Bacon & Related Acts
    - Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
    - 2 CFR Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, *as supplemented by* 2 CFR Part 1201 for Awards by the U.S. Department of Transportation
    - 2 CFR 1201
    - 23 CFR 1.36, Compliance with other Federal Laws and Regulations
    - 23 CFR 771, Environmental Requirements
    - 23 CFR 635.410 Buy America, as further described below
    - 41 U.S.C. § 4712, Enhancement of Contractor Protection from Reprisal for Disclosure of Certain Information

2. **Required Contract Provisions for Federal-Aid Construction Contracts:** Form FHWA-1273 must be physically incorporated in each construction contract funded with Grant Funds provided under this Agreement. The contractor (or subcontractor) must insert Form FHWA-1273 in each subcontract and further require its inclusion in all lower tier subcontracts. See Attachment C: Form FHWA-1273.

3. **Buy America – as of August 16, 2023, this section only applies if the total federal financial assistance included in the Total Project Cost, including RTP funds, is $500,000 or more**: 23 CFR 635.410 is applicable to steel, iron and manufactured goods used in a "federal-aid highway construction project" including the Project funded under this Agreement. Based on the definitions of "construction" in 23 U.S.C. 101 and "project", the Buy America provisions apply to steel and iron permanently incorporated in a project funded by RTP when the total value of these materials exceeds $2,500. Documentation of Buy America compliance is required to be obtained and retained with the Grantee's grant records.

4. **Build America, Buy America Act – as of August 16, 2023, this section only applies if the total federal financial assistance included in the Total Project Cost, including RTP funds, is $500,000 or more:** As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a federal award that are part of Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in

the United States, unless subject to an approved waiver. The requirements of this section must be included in all contracts, subcontracts and purchase orders for work or products under this program. Recipients of an award of Federal financial assistance are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

a. unless subject to the $2,500 threshold described in item 3, all iron and steel used in the project are produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;

b. unless subject to FHWA's General Applicability Waiver of Buy America Requirements for Manufactured Products, all manufactured products used in the project are produced in the United States —this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and

c. all construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States. The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

5. **Audit Clause**: Subrecipients receiving federal awards in excess of $750,000 in the Subrecipient's fiscal year are subject to audit conducted in accordance with the provisions of 2 CFR part 200, subpart F. Subrecipient, if subject to this requirement, shall, upon request, at Subrecipient's own expense submit to Agency a copy of, or electronic link to, its annual audit subject to this requirement covering the funds expended under this Agreement and shall submit or cause to be submitted to Agency the annual audit of any subrecipient(s), contractor(s), or subcontractor(s) of Subrecipient responsible for the financial management of funds received under this Agreement.

6. **Debarment and Suspension.** Recipient certifies that it is not listed, and shall not permit any person or entity to be a subcontractor if the person or entity is listed, on the non-procurement portion of the General Service Administration's "List of Parties Excluded from Federal Procurement or Nonprocurement Programs" in accordance with Executive Orders No. 12549 and No. 12689, "Debarment and Suspension". (See 2 CFR Part 180.) This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory authority other than Executive Order No. 12549. Subcontractors with awards that exceed the simplified acquisition threshold shall provide the required certification regarding their exclusion status and that of their principals prior to award.

FHWA-1273 – Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.