Columbia Street Regional Storm Water Facility Pipe Mitigation

January, 2016

Project Number: 8069
Bidding and General Requirements, Contract Forms,
Project Special Provisions and Contract Plans

Owner
City of Sherwood
Engineering Department
22560 SW Pine Street
Sherwood, OR 97140
(503) 925-2309

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Division One
Bidding Requirements

INVITATION TO BID
City of Sherwood
Columbia Street Regional Storm Water Facility Pipe Mitigation

Sealed bids for furnishing all materials, equipment, labor, and services for the construction of the **Columbia Street Regional Storm Water Facility Pipe Mitigation Project** for the City of Sherwood will be received at City of Sherwood, Engineering Department, 22560 SW Pine Street, Sherwood, Oregon 97140 (Attn: Craig Christensen, P.E., Project Manager) until the **Bid Closing** at **2:00 PM (PST)** on **Thursday, February 4, 2016**. Please title the envelope Columbia Street Regional Storm Water Facility Pipe Mitigation. Bids will then be publicly opened and read aloud after 2:00 PM at the Sherwood City Hall Community Room, 22560 SW Pine Street, Sherwood, Oregon. This project is subject to a pre-qualification process and only Earthwork and Drainage Contractors pre-qualified bids will be accepted. No bids will be accepted after the **BID CLOSING** time.

First-Tier Subcontractor Disclosure forms must be received at the above mentioned location and date no later than **4:00 PM (PST).** Proposals without a completed First-Tier Subcontractor Disclosure form submitted will be considered non-responsive.

Bidders must be **pre-qualified** in accordance with the laws of the State of Oregon (ORS 279C.430) to do Earthwork and Drainage Improvements. Letters of pre-qualification (approval letter only) from the Oregon Department of Transportation (ODOT), Washington County Department of Land Use &Transportation, or any local municipality with a population equal to or greater than 18,000 persons is acceptable to the City. Proof of valid pre-qualification must be submitted to the City **by Tuesday, February 2, 2016 at 5:00 PM (PST)** for the Bidder's bid to be deemed responsive and to retain appeal rights. Only bids from pre-qualified Bidders will be opened.

A **MANDATORY PRE-BID MEETING** will be held at City of Sherwood City Hall (22560 SW Pine Street) on **Tuesday, January 12, 2016 at 2:00 PM (PST)**. A bidder's failure to attend the pre-bid meeting shall cause any bid submitted by that bidder to be deemed non-responsive and will be returned unopened.

Project Description

The Work to be done under this Contract consists of the construction of the following items:

1. Concrete foundation for pipe arch.
2. Aluminum pipe arch.
3. Asphalt concrete pavement placement.
4. Vegetative corridor plantings.
5. Engineer's Estimate ($90,000 - $110,000)

The Bidding Documents are available for examination and/or purchasing at Sherwood City Hall for a $30.00 non-refundable fee, if documents are picked up or a $35.00 non-refundable fee if documents are mailed. Bidding Documents are also available for free download on the City's website, www.sherwoodoregon.gov, under the "Business and Development" pull down under "Bids and RFP's" and are acceptable for Bid Submittal. Additional Information and Project Plans will be available on the City website under the "Business and Development" pull down under "Bids and RFP's" at the time of this posting.

Other locations Bidding Documents may be examined:

- DJC Plan Center (Electronic only), 503-224-0624, Email: plancenter@djcoregon.com
- Oregon Contractors Plan Center, 5468 SE International Drive, Milwaukie, OR 97222
- Builders Exchange of Washington, Inc., 2607 Wetmore Ave., Everett, WA 98201

Parties purchasing Bidding Documents will be included on a Planholders list maintained by the City. Parties downloading Bidding Documents from the City's website can request to be included on the official Planholders list by sending an email to engineering@sherwoodoregon.gov. Bidders are not required to be on Planholders list to submit a Bid for this project.

Addenda, clarifications and Notices will be posted online on the City's website. Potential Bidders are responsible for checking the website on a daily basis. Each addendum must be signed and submitted with the Bid to be considered a responsive bid offer. The City is not responsible for failure of bidders to receive notifications of changes or corrections made by the City and posted as stated above.

All questions or requests for clarification must be submitted **by 5:00 PM (PST) on Thursday, January 28, 2016**, seven (7) days prior to bid opening to receive responses. All final responses will be posted on the City's website no later than three (3) days prior to Bid Opening.

This is a local public works project subject to BOLI prevailing wages (ORS 279C.800 to ORS 279C.870).

Bids shall be accompanied by a certified check, cashier's check or bid bond payable to the City of Sherwood in an amount equal to ten percent (10%) of the amount bid.

The City of Sherwood may reject a bid that does not comply with prescribed public contracting procedures and requirements, including the requirement to demonstrate the bidder's responsibility under ORS 279C.375(3)(b), and that the City may reject for good cause, all bids after finding that doing so is in the public interest. City reserves the right to waive minor informalities in any bid.

For more information regarding this project, contact Craig Christensen, P.E., at 503-925-2301 or by e-mail at christensenc@sherwoodoregon.gov.

PUBLISH: Portland Daily Journal of Commerce, January 6 and January 8, 2016.

BIDDER'S CHECKLIST

COLUMBIA STREET REGIONAL STORM WATER FACILITY PIPE MITIGATION

- ☐ Bid Statement Including signed signature page
- ☐ Bid Schedule
- ☐ First Tier Subcontractor Disclosure Form
- ☐ Bid Bond
- ☐ Certification of Non-Collusion
- ☐ Certification of Compliance with ORS 279C.840
- ☐ Certification of Asbestos Abatement
- ☐ Certification of Non-Discrimination
- ☐ Customer Service Acknowledgment
- ☐ Prequalification Acknowledgement
- ☐ Bidder Responsibility Form
- ☐ All Applicable Addenda

BID STATEMENT

The undersigned Bidder declares:

That Bidder has carefully examined and incorporates in this Bid, by this reference all documents included in the Bid Booklet of Contract Documents and Specifications for this job, which includes but is not limited to the Plans, Standard Specifications and Standard Drawings, Supplemental Specifications and Special Provisions, Addenda, Bid Schedule, Prevailing Wage Rates, Contract form, Bond forms, and Conditions of the Contract for:

Columbia Street Regional Storm Water Facility Pipe Mitigation

That Bidder has made an examination of the site of the proposed work and has made such investigations as are necessary to determine the character of the material and the conditions to be encountered, independently of the indication on the plans; and that if the Proposal is accepted, Bidder will contract with the City of Sherwood as provided in the Contract form, will to the extent of this bid, provide the necessary machinery, tools, apparatus, and other means of construction, and will furnish all material and labor as specified, or called for by the Plans or as necessary to complete the work in the manner specified and in accordance with the requirements of the Engineer.

The undersigned has checked carefully all the bid schedule figures, and understands that the City will not be responsible for any errors or omissions on the part of the undersigned in making this bid.

That Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site which have been identified in the Solicitation Documents. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder's purposes. Bidder acknowledges that City and Architect/Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site.

That Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and underground facilities) at or contiguous to the site which may affect cost, progress, or performance of the work and which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

That Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance furnishing of the work in accordance with the times, price and other terms and conditions of the Contract Documents.

Bidder has given Architect/Engineer written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Architect/Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to and convey understanding of all terms and conditions for performing and furnishing the work for which this Bid is submitted.

The undersigned also agrees that Bidder will order all material and equipment included under this contract and will commence work within ten (10) days after receipt of Notice to Proceed and that Bidder will complete the work in all respects after commencement and will have the project completed by the date specified in the special provisions and that Bidder will pay as liquidated damages to the City for any delay, the sum of **Five Hundred and No/100 Dollars ($500.00)** per day for each Calendar Day required beyond that period.

Accompanying this proposal is a Certified Check, Cashier's Check, or Bidder's Bond

from _____ of _____
(Name of Surety) (City/State)

in the amount of _____ dollars

($_____), being 10% of the amount bid according to the conditions of the Call for Bids and Specifications.

If this proposal should be accepted by the City and the undersigned should fail to executed a satisfactory contract and bond within ten (10) days from the date of notification, then the City may, as stated in the specifications, determine that the undersigned has abandoned the contract and thereupon this proposal shall be null and void, and the certified check, cashier's check or Bidder's bond accompanying this proposal shall be forfeited to and become the property of the City. Otherwise, the certified check, cashier's check or Bidder's bond accompanying this proposal shall be returned to the undersigned.

The full name and residence of all parties and persons interested in this bid as principals are as follows:

NAME	RESIDENCE
_____	_____
_____	_____

The name and business address of the surety company which will furnish the required performance and payments bonds is

_____
(Name of Surety Company) (Number and Street Address) (City / State / Zip)

All General and Specialty Construction Contractors must have a valid Certificate of Registration with the Construction Contractors Board/State Landscape Contractors Board in order to submit a Bid or offer to undertake any Construction Work in the State of Oregon (ORS 701.026/ORS 671.530).

REGISTRATION NO. _____ **EXPIRATION DATE** _____

The undersigned Bidder has heretofore completed the following work of a similar nature to that contemplated.

JOB	LOCATION	DATE

The undersigned Bidder acknowledges that the amount of damages City might suffer by reason of a failure to complete the project by the Completion Date noted above would be difficult or impossible to compute, and therefore agrees that the stipulated amount of liquidated damages set forth above for such delay is a fair and reasonable measure of damages, and therefore Bidder agrees that it will not contest such sum as being other than a true measure of damages in the event of a failure to complete the project by the stipulated Completion Date. Bidder hereby declares and agrees:

(1) that this is a local public works project subject to the state prevailing rates of wage under ORS 279C.800 to 279C.870, no bid will be considered without statement by the bidder that the bidder will comply with ORS 279C.838 or 279C.840;

(2) that Bidder is _____ is not _____ a Resident of Oregon Bidder, as defined by ORS 279A.120. "Resident Bidder" means a Bidder that has paid unemployment taxes or income taxes in this state during the 12-calendar months immediately preceding submission of the bid, has a business address in this state, and has stated in the bid whether the Bidder is a "Resident Bidder;"

(3) that City of Sherwood may reject a bid that does not comply with prescribed public contracting procedures and requirements, including the requirement to demonstrate the bidder's responsibility under ORS 279C.375(3)(b), and the City of Sherwood may reject for good cause all bids after finding that doing so is in the public interest;

(4) that no Bid will be considered unless the Bidder is registered with the Construction Contractors Board as required by OAR 137-049-230.

(5) that where asbestos abatement is required the abatement shall be done by Department of Environmental Quality licensed contractor (ORS 468A.720) and the abatement shall be performed in conformity with DEQ and OSHA regulations and other standards related to work place safety;

(6) that Bidder shall comply with and cause its subcontractors to comply with all applicable provisions of federal, state and local statutes, ordinances, rules and regulations;

(7) that Bidder shall comply with pre-qualification conditions in accordance with the laws of the State of Oregon (ORS 279C.430) as follows:

a. Pre-qualification is required and forms must be filed two (2) days prior to the Bid Opening date for the Bidder to retain bidding rights.

b. Required forms: Proof of pre-qualification acceptance by either the State of Oregon Department of Transportation (ODOT), Washington County Department of Transportation, or any local major municipality is acceptable to the City. Bidders

may mail (address on cover sheet), fax (503-625-0629) or e-mail (engineering@sherwoodoregon.gov) proof of pre-qualification to the City, to the attention of the City Engineer.

(8) that each Bidder must provide certification of non-discrimination in obtaining required subcontractors in accordance with ORS 279A.110(4).

(9) that Bidder must also possess either a Metro license or a City of Sherwood business license at the time of construction.

(10) that all principal individuals in your organization assigned to the project (superintendent, project manager, and/or lead on-site contact) shall be listed on the Bidder Responsibility Form submitted to the City. Any personnel changes during the Project must be preceded by the submittal of the new individual's experience, and written acceptance by the City, as required on the Bidder Responsibility Form.

This bid is incomplete and shall not be considered unless there is attached hereto a signed and dated complete original of each of the following: Bid Statement, Bid Schedule, First-Tier Subcontractor Disclosure Form, a Certified Check, Cashier's Check or Bid Bond, Certification of Non-collusion, Certification of Compliance with ORS 279C.840, Certification of Asbestos Abatement, Certification of Non-Discrimination, Customer Service Acknowledgement, Prequalification Acknowledgment, Bidder Responsibility Form and all applicable Addenda.

Submitted By:
Name of Bidder: _____

Signature of
Authorized Agent: _____

Title: _____

Business Address of
Bidder: _____

Phone Number: _____

Date: _____

BID SCHEDULE
COLUMBIA STREET REGIONAL STORM WATER FACILITY PIPE MITIGATION

Item No.	Spec Section	Description	Unit	Quantity	Unit Price	Unit Total Cost
PART 00200 -- TEMPORARY FEATURES AND APPURTENANCES						
1	00210	Mobilization	LS	1		
2	00225	Temporary Work Zone Traffic Control, Complete	LS	1		
3	00240	Work Isolation and Temporary Creek Diversion	LS	1		
4	00280	Erosion Control	LS	1		
5	00280	Sediment Fence	FOOT	225		
6	00280	Mulching	SY	170		
7	00280	Gravel Construction Entrance	EACH	1		
8	00280	Slope Protection Matting - Econojute	SY	150		
PART 00300 -- ROADWORK						
9	00310	Removal of AC Path	SF	420		
10	00310	Removal Storm Culvert	LS	1		
11	00310	Remove Existing Fence	LS	1		
12	00320	Stripping	LS	1		
13	00330	Earthwork – Excavation, Embankment and Off-Haul	LS	1		
14	00330	Engineering Fills	BCY	32		
15	00390	Class 200 Riprap	CY	15		
PART 00400 -- DRAINAGE AND SEWERS						
16	00450	39-FT Min. x 15-FTx6-FT 7-IN Multi-Plate Arch Culvert	LS	1		
PART 00500 -- BRIDGES						
17	00510	Structure Excavations	LS	1		
18	00510	Structure Backfill	LS	1		
PART 00600 - BASES						
19	00641	Aggregate Base Rock – 2" Thick (3/4"-0)	SY	60		
20	00641	Aggregate Base Rock – 5" Thick (3/4"-0)	SY	20		
21	00641	Aggregate Bubbase Rock – 6" Thick (1-1/2"-0)	SY	80		
PART 00700 – WEARING SURFACES						

BID SCHEDULE
COLUMBIA STREET REGIONAL STORM WATER FACILITY PIPE MITIGATION

Item No.	Spec Section	Description	Unit	Quantity	Unit Price	Unit Total Cost
22	00745	Access Road Surface – 3" Thick, Level 2, ½" Dense, HMAC	SY	60		
PART 01000 – RIGHT OF WAY DVELOPMENT AND CONTROL						
23	01030	Native Enhancement Grass Seed Mix	SY	320		
24	01040	Invasive Species Removal	LS	1		
25	01040	Vegetated Corridor Enhancement Tree; Douglas Fir	EACH	15		
26	01040	Vegetated Corridor Enhancement Tree; Big Leaf Maple	EACH	14		
27	01040	Vegetated Corridor Enhancement Shrub; Vine Maple	EACH	29		
28	01040	Vegetated Corridor Enhancement Shrub; Ocean Spray	EACH	29		
29	01040	Vegetated Corridor Enhancement Shrub; Sword Fern	EACH	29		
30	01040	Vegetated Corridor Enhancement Shrub; Thimble Berry	EACH	29		
31	01040	Vegetated Corridor Enhancement Shrub; Snowberry	EACH	29		
32	01040	Plant Establishment, 2-Year Period, $500.00 Minimum	LS	1		
33	01040	Weed Control, 2-Year Period, $500.00 Minimum	LS	1		
34	01050	4-FT, 6-IN Timber Rail Fence	FOOT	86		
35	01095	Channel Material Fill Mix	SY	65		
BID ALTERNATES						
36	00330	Additional Excavation	BCY	10		
37	00330	Additional Embankment	BCY	10		
38	003330	Additional Off-Haul	BCY	10		
39	00442	Additional CLSM	BCY	5		
40	01040	Imported Topsoil	BCY	10		
				TOTAL BID =		

COLUMBIA STREET REGIONAL STORM WATER FACILITY PIPE MITIGATION BID WRITTEN IN WORDS:

_____ **DOLLARS AND** _____ **CENTS**

In the event of discrepancy, the amount in words shall dictate.

In accordance with the provisions of the Oregon Standard Specifications for Construction, 2015 Edition as modified by these bid documents, the undersigned Bidder submits the following Bid Schedule with the understanding that City reserves the right to increase, decrease, or completely eliminate quantities as set forth in 00120.20. Also, the Bidder offers to do the work, whether quantities area changed (increased or decreased) in accordance with 00195.20, or not changed, at the unit rate price stated in the following Bid Schedule:

Signature of Authorized Agent	Company Name
Printed Name	Date

FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM

(OAR 137-049-0360)

Bids which are submitted by Bid Closing, but for which a required disclosure submittal has not been made by the specified Disclosure Deadline, are not responsive and shall not be considered for Contract award.

PROJECT NAME: **Columbia Street Regional Storm Water Facility Pipe Mitigation**

BID CLOSING:	Date: **February 4, 2016**	Time: **2:00 PM (PST)**
FIRST-TIER DISCLOSURE	Date: **February 4, 2016**	Time: **4:00 PM (PST)**

Deliver Form To (Agency): City of Sherwood

Designated Recipient (Person): Craig Christensen, P.E. Phone #: 503-925-2301

Agency's Address: City of Sherwood, City Hall
22560 SW Pine Street
Sherwood, OR 97140

INSTRUCTIONS:

The contracting agency will insert "N/A" above if the contract value is not anticipated to exceed $100,000. Otherwise this form must be submitted either with the bid or within two (2) working hours after the advertised bid closing date and time; but no later than the DISCLOSURE DEADLINE stated above.

Unless otherwise stated in the solicitation, this document shall not be submitted by facsimile. It is the responsibility of bidders to submit this disclosure form and any additional sheets, with the bid number and project name clearly marked, at the location indicated by the specified disclosure deadline. See "Instructions to Bidders".

List below the Name, Category of Work and Dollar Value for each first-tier subcontractor that would be furnishing labor, or labor and material, for which disclosure is required. Enter the word "NONE" if there are no first-tier subcontractors subject to disclosure. ATTACH ADDITIONAL SHEETS IF NECESSARY.

BIDDER DISCLOSURE:

	SUBCONTRACTOR NAME	CATEGORY OF WORK	DOLLAR VALUE
1			
2			
3			
4			
5			

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

a) 5% of the total Contract Price, but at least $15,000. [If the Dollar Value is less than $15,000 do not list the subcontractor above] or;

b) $350,000 regardless of the percentage of the total Contract Price.

Form Submitted By (Bidder Name): _____

Contact Name: _____ Phone #: _____

BID BOND

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

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

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

_____ dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal or bid to an agency of the Obligee in response to Obligee's procurement document for the project identified as:

Columbia Street Regional Storm Water Facility Pipe Mitigation

which proposal or bid is made a part of this bond by reference, and Principal is required to furnish bid security in an amount equal to ten (10%) percent of the total amount of the bid pursuant to the procurement document and ORS 279C.365(4) for competitive bidding or 279C.400(5) for competitive proposals.

NOW, THEREFORE, if the proposal or bid submitted by Principal is accepted, and if a contract pursuant to the proposal or bid is awarded to Principal, and if Principal enters into and executes such contract within the time specified in the procurement document and executes and delivers to Obligee its good and sufficient performance and payment bonds required by Obligee, as well as any required proof of insurance, 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 _____, 20__.

PRINCIPAL: _____ **SURETY:**_____

By_____ BY ATTORNEY-IN-FACT:
Signature

_____ _____
Official Capacity Name

Attest: _____ _____
Corporation Secretary Signature

_____
Address

_____
City State Zip

_____ _____
Phone Fax

CERTIFICATION OF NON-COLLUSION

PROJECT NAME: COLUMBIA STREET REGIONAL STORM WATER FACILITY PIPE MITIGATION

TO: CITY OF SHERWOOD, A MUNICIPAL CORPORATION OF THE STATE OF OREGON

STATE OF OREGON)
) SS
COUNTY OF WASHINGTON)

_____
(Bidder's Firm Name)

I, the undersigned, as [circle one]:

- sole owner
- a partner
- officer of the foregoing corporation
- agent of the above bidder

being first duly sworn on oath, depose and say:

That the attached bid has been arrived at by the bidder, independently, and has been submitted without collusion with, and without any agreement, understanding or planned course of action with, any other contractor, bidder, or vendor on materials, supplies, equipment or services, described in the invitation to bid, designed to limit independent bidding or competition.

The contents of the bid herein presented and made have not been communicated by the bidder or (his) (their) or (its) employees or agents to any person not an employee or agent of the bidder or its surety on any bond furnished with the bid, and will not be communicated to any such person prior to the official opening of the bid.

I have fully informed myself regarding the accuracy of the foregoing statements, and the same are made by me based on my personal information.

I have read and understood the Bid Booklet and the Specifications for the attached Bid.

Signature _____

Title _____

Subscribed and sworn before me this _____ day of _____, 20__

My commission expires: _____

_____
Notary Public for Oregon

CERTIFICATION OF COMPLIANCE WITH ORS 279C.840 (PREVAILING WAGES)

FOR

Project Name: **Columbia Street Regional Storm Water Facility Pipe Mitigation**

The undersigned confirms that the provisions of ORS 279C.840 shall be complied with for personnel working on this project.

A copy of the Prevailing Wage Rates is available on-line at the Bureau of Labor and Industries website at:

http://www.oregon.gov/boli/WHD/PWR/Pages/PWR_Rate_Publications_2016.aspx

When a contractor or subcontractor is a party to a statewide collective bargaining agreement in effect with any labor organization, the rate of wages provided for in such agreement shall be considered to be the prevailing rate of wage to be paid to the workers on this project.

Date _____

Signature of Bidder _____

Title _____

Business Name _____

CERTIFICATION OF ASBESTOS ABATEMENT

FOR

Project Name: **Columbia Street Regional Storm Water Facility Pipe Mitigation**

The undersigned confirms that if asbestos abatement is required the abatement shall be done by Department of Environmental Quality licensed contractor (ORS 468A.720) and the abatement shall be performed in conformity with DEQ and OSHA regulations and other standards related to work place safety.

Date: _____

Signature of Bidder: _____

Title: _____

Business Name: _____

CERTIFICATION OF NON-DISCRIMINATION
[ORS 279A.110(4) & OAR 137-049-0440(3)]

FOR

Project Name: **Columbia Street Regional Storm Water Facility Pipe Mitigation**

The undersigned certifies that it has not discriminated against minority, women or emerging small business enterprises in the obtaining of subcontracts for this project and shall not discriminate against minority, women or emerging small business enterprises in awarding of subcontracts for this project.

Date _____

Signature of Bidder _____

Title _____

Business Name _____

CUSTOMER SERVICE ACKNOWLEDGMENT

FOR

Project Name: **Columbia Street Regional Storm Water Facility Pipe Mitigation**

Bid Closing: Date: _____ Time: _____ AM__ PM__

Note: This form is part of the inquiry concerning bidder responsibility and must be submitted with the other proposal forms as specified in Section 00120.40(h) of Division Four – Special Provisions."

Bidder, by his/her signature below, hereby signifies that s/he has read and understands the construction specifications, including but not limited to the following sections of Division Four – Special Provisions, relating to customer service. These sections include, but are not limited to, the sections listed below:

- Section 00160, Source of Materials
- Section 00180.40, Limitation of Operations
- Section 00225, Work Zone Traffic Control

Bidder further acknowledges that s/he understands their terms, fully acknowledges their importance to successful completion of the project, and agrees to be bound thereby if awarded this contract. Bidder further assures the City that, if awarded this contract, s/he will promptly, efficiently and courteously carry out his/her responsibilities under the aforementioned specifications.

_____ _____
Signature of Bidder Title

_____ _____
Name of Firm Date

PREQUALIFICATION ACKNOWLEDGMENT

FOR

Project Name: Columbia Street Regional Storm Water Facility Pipe Mitigation

The undersigned confirms that the Bidder has complied with pre-qualification conditions in accordance with the laws of the State of Oregon (ORS 279C.430) by submitting proof of pre-qualification acceptance two (2) days prior to the Bid Opening date by submitting pre-qualification acceptance by either the State of Oregon Department of Transportation (ODOT), Washington County Department of Transportation, or any local major municipality.

Date: _____

Signature of Bidder: _____

Title: _____

Business Name: _____

BIDDER RESPONSIBILITY FORM

FOR

Project Name: Columbia Street Regional Storm Water Facility Pipe Mitigation

All information shall be typed or printed legibly

Note: Information provided in this form is part of the inquiry concerning bidder responsibility, and this form must be submitted with the other proposal forms as specified in Section 00120.40(g) of DIVISION FOUR - SPECIAL PROVISIONS."

Part A

Submitted by: _____ _____
Signature Date

Name (print): _____

Name of Firm: _____

Address: _____

_____

Phone: _____

Fax: _____

1. How many years has your organization done business as a General Contractor under the present business name? _____

   How many years under (a) different name(s)? _____

   List different names, if any, and dates of operation:

   _____

   _____

2. How many years has your organization been in business under its present business name?

   _____

   How many years under (a) different name(s)? _____

   List different names, if any, and dates of operation:

   _____

   _____

Part B – Complete the appropriate Portion Below

1. Bidder is an **INDIVIDUAL**:

   Name of individual _____

   Doing Business as _____

2. Bidder is a **CORPORATION**:

   Name of Corporation as registered with the state of Oregon:

   _____

   Date of Incorporation: _____ State of Incorporation: _____

   Name of President _____

   Name of Secretary _____

   Name of Treasurer _____

   Name of Manager _____

3. Bidder is a **LIMITED PARTNERSHIP**:

   Name of Limited Partnership as registered with the state of Oregon:

   _____

   Name of persons or parties composing the Limited Partnership (indicate whether an individual or corporation):

   _____

   _____

   _____

   _____

4. Bidder is a **GENERAL PARTNERSHIP**:

   Name of General Partnership as registered with the state of Oregon:

   _____

   Name of persons or parties composing the General Partnership (indicate whether an individual or corporation):

   _____

   _____

   _____

   _____

5. Bidder is a **JOINT VENTURE**:

   Name of Joint Venture as registered with the state of Oregon:

   _____

   Name of persons or parties composing the Joint Venture (indicate whether an individual or corporation):

   _____

   _____

   _____

   _____

Part C

1. What percent of the work do you normally perform with you own forces? _____

   List Trades directly employed by you:

   _____ _____ _____

   _____ _____ _____

2. List the Construction Equipment you own or lease long-term:

   _____ _____ _____

   _____ _____ _____

   _____ _____ _____

3. Have you ever failed to complete any work awarded to you? _____
   (Answer yes or no)

   If so, indicate when, where, and why.

   _____

   _____

   _____

4. A. Have you ever defaulted on a contract? _____ If so, indicate when, where and why.
   (Answer yes or no)

   _____

   _____

   _____

   B. What result: Lawsuit? Judgment? Arbitration? Settled? Other?
   Circle the one that most applies

   If other, explain: _____

   _____

C. Are there currently any unpaid judgments against the business or any of its principals?

_____
(Answer yes or no)

If so, describe: _____

_____

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? _____
(Answer yes or no)

If so, describe circumstances below:

_____

_____

_____

6. List major construction projects your organization currently has under contract as the general contractor:

Project name _____

City / Contact Name & phone #: _____

Architect/Engineer: _____

Contract Amount / Contract Date: _____

% Complete / Schedule Complete: _____

Project name _____

City / Contact Name & phone #: _____

Architect/Engineer: _____

Contract Amount / Contract Date: _____

% Complete / Schedule Complete: _____

Project name _____

City / Contact Name & phone #: _____

Architect/Engineer: _____

Contract Amount / Contract Date: _____

% Complete / Schedule Complete: _____

Add additional sheets listing projects as required

7. List major construction projects, similar to the one being bid, that your organization completed in the past 5 years as the general contractor if not shown on the State of Oregon Department of Administrative Services' Contractor's Prequalification Application:

Project name _____
City / Contact Name & phone #: _____
Architect/Engineer: _____
Contract Amount / Date Awarded: _____
Percent Completed with own forces: _____

Project name _____
City / Contact Name & phone #: _____
Architect/Engineer: _____
Contract Amount / Date Awarded: _____
Percent Completed with own forces: _____

Project name _____
City / Contact Name & phone #: _____
Architect/Engineer: _____
Contract Amount / Date Awarded: _____
Percent Completed with own forces: _____

Add additional sheets listing projects as required

8. List the construction experience of the principal individuals in your Organization; which ones will be assigned to this project (including the percentage of their time to be assigned to this project):

Individual's Name _____
Construction experience - years: _____
Present position & years with organization: _____
Percentage of individual's time to be assigned to project: _____

Individual's Name _____

Construction experience - years: _____

Present position & years with organization: _____

Percentage of individual's time to be assigned to project: _____

Individual's Name _____

Construction experience - years: _____

Present position & years with organization: _____

Percentage of individual's time to be assigned to project: _____

A. Have any of the principal individuals in your Organization been convicted under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, or receiving stolen property? _____ If so, describe circumstances below:

_____

_____

_____

B. Have any of the principal individuals in your Organization been the subject to a civil judgment for fraud? _____ If so, describe circumstances below:

(Answer yes or no)

_____

_____

_____

9. Bank References:

_____ _____

_____ _____

_____ _____

10. Trade References:

_____ _____

_____ _____

_____ _____

11. List names of Bonding and Insurance Companies, name and address of agents, and maximum bonding capacity.

    _____

    _____

    _____

    What portion remains on this Bonding Capacity at the time of submittal of the Bid?

    _____

12. The bidder agrees to furnish, upon request by the City, within 5-days after the Bid Opening, a current Statement of Financial Conditions, including Contractor's latest regular dated financial statement or balance sheet which must contain the following items:
    - Current assets: (cash, joint venture accounts, accounts receivable, notes receivable, accrued interest on notes, deposits, and materials and prepaid expenses), net fixed assets and other assets.
    - Current liabilities: (Accounts payable, notes payable, accrued interest on notes, provisions for income taxes, advances received from owners, accrued salaries accrued payroll taxes), other liabilities, and capital (capital stock, authorized and outstanding shares per values, earned surplus).

    Date of statement or balance sheet: _____

    Name of firm preparing statement: _____

    By: _____

Bidder's Initials: _____

Bid Closing: Date: _____ **Time:** _____ **AM** ___ **PM** ___

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

Columbia Street Regional Storm Water Facility Pipe Mitigation

DATE **ADDENDUM NO. 1**

Addition/Change to the Contract Documents
The work provided for in this addendum shall become a part of the drawings and specifications for this project.

1.

2.

This ADDENDUM shall be signed and attached to the Bidder's Proposal and shall subsequently become part of the Contract Documents.

Company Name	
Contractor Name	
Contractor Signature	
Date	

Division Two
Contract Forms

PUBLIC IMPROVEMENT CONTRACT FOR USE WITH OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION

BETWEEN: The City of Sherwood,
an Oregon Municipal Corporation

AND: (Contractor):

JOB NO.: N/A

PROJECT: Columbia Street Regional Storm Water Facility Pipe Mitigation

RECITALS

Contractor was the successful Bidder for the contract construction of the improvement ("Project") described in this Public Improvement Contract for use with Oregon Standard Specifications for Construction as supplemented by the City. (this "Document")

AGREEMENT TERMS AND CONDITIONS

1. **The Contract.** The Contract between the City and Contractor (the "Contract") includes this Document and its exhibits, the 2015 Oregon Standard Specifications for Construction issued by the Oregon Department of Transportation (ODOT) together with all of the documents and materials included in the definition of the "Contract" under the 2015 ODOT Standard Specifications for Construction, as modified by the City's Supplemental Specifications and project Special Provisions. In addition, the Contract between the City and Contractor shall be deemed to incorporate all reports, records, laws, rules and orders referenced in the Contract Documents.

   This Document also includes and incorporates the following exhibits:

   Exhibit A – CITY OF SHERWOOD – STANDARD CONTRACT PROVISIONS
   Exhibit B – Certification of Bidder/Contractor Employee Drug Testing Program
   Exhibit C – Certification of Compliance with Oregon Tax Law
   Exhibit D – Certification of Registration with Contractors Board
   Exhibit E – Certification of Workers' Compensation Coverage

2. **Definitions.** Unless otherwise specifically defined in this Document, all capitalized terms which are not proper nouns shall have the meanings assigned thereto in the specifications.

3. **Work to be Performed.** Contractor agrees to furnish, as the "Work" all services, labor, materials and equipment which are described as the Contractor's responsibility in the plans and specifications, or as reasonably inferred therefrom, as the same may be modified in accordance with the Contract, and to construct the improvement described therein (the Project), all according to the provisions of the Contract. All parts of the Work are the sole responsibility of Contractor.

4. **Time of Commencement and Completion.** Time is of the Essence of the Contract. The time in which Contractor shall commence, prosecute and complete the Work is described in the specifications, as modified by any Addenda or subsequent Contract Change Order.

5. **Contract Sum.** The Contract sum is $_____ and consists of unit prices bid by Contractor multiplied by estimated quantities, together with lump sum amounts for portions of the Work, as described on the Contractor's Bid attached hereto. Unless the Contract states otherwise, the actual sum payable to Contractor for the Work shall be based on lump sum amounts and actual quantities, as modified by Change Orders and adjustments made in accordance with the specifications. Payment will be made as provided in the specifications.

6. **Indemnification**. Contractor's duty to indemnify is described in Section 00170.72 of the General Conditions in ODOT's 2015 Standard Specifications, as modified by the Special Provisions. Contractor's indemnity obligations survive acceptance of the Work and completion of the Contract.

7. **Insurance**. Contractor shall maintain in force for the duration of this contract the insurance coverages specified below and in specification Section 00170.70(a). Each policy required by these provisions shall be written as a primary policy, not contributing with or in excess of any coverage which City may carry. In accordance with the Special Provisions, a copy of each policy or a Certificate of Insurance satisfactory to City shall be delivered to City prior to commencement of the Work. Unless otherwise specified, each policy shall be written on an "occurrence" form with an admitted insurance carrier licensed to do business in the state of Oregon and shall contain an endorsement entitling City to not less than 30 days prior written notice of any material change, nonrenewal or cancellation. In the event the statutory limit of liability of a public body for claims arising out of a single accident or occurrence is increased above the combined single limit coverage requirements specified below, City shall have the right to require Contractor to increase the Contractor's coverages by the amount of the statutory limit increase for such claims and to increase the aggregate coverage by an amount that is twice as large as the statutory increase. The adequacy of all insurance required by these provisions shall be subject to approval by City's Risk Manager. Unless otherwise allowed by City, Contractor shall require all subcontractors to carry insurance at least equal to that required under this section. Failure to maintain any insurance coverage required by this contract shall be cause for immediate termination of this Contract by City.

   7.1 **Commercial General Liability**. Contractor shall maintain a broad form Commercial General Liability Insurance policy with coverage of not less than $1,000,000 combined single limit per occurrence, with an annual aggregate of not less than $2,000,000.00, for bodily injury, personal injury or property damage. Such policy shall contain a contractual liability endorsement to cover Contractor's indemnification obligations under the Contract and products/completed operations liability. The policy shall also contain an endorsement naming City as an additional insured, in a form satisfactory to City, and expressly providing that the interest of City shall not be affected by Contractor's breach of policy provisions. The policy shall be endorsed to state that the general aggregate limit of liability shall apply separately to the Contract.

   7.2 **Commercial Automobile Liability**. Contractor shall maintain a Commercial Automobile Liability Insurance policy with coverage of not less than $2,000,000.00 combined single limit per occurrence, with an annual aggregate limit of not less than $2,000,000.00, for bodily injury, personal injury or property damage. The coverage shall include both hired and non-owned auto liability. The policy shall also contain an endorsement naming City as an additional insured, in a form satisfactory to City, and

expressly providing that the interest of City shall not be affected by Contractor's breach of policy provisions.

7.3 **Workers' Compensation Insurance**. All employers, including the Contractor and its Subcontractors, if any, that employ subject workers who are performing Work or providing labor or materials under the Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation Coverage, unless such employers are exempt under ORS 656.126. The Contractor shall ensure that each of its Subcontractors complies with these requirements. Contractor shall provide City with such further assurances as City may require from time to time that Contractor is in compliance with these Workers' Compensation coverage requirements and the Workers' Compensation law. The Contractor shall ensure that its insurance carrier files a Guaranty Contract with the Oregon Workers' Compensation Division before performing any Work.

8. **Performance, Payment and Maintenance Bonds**. Prior to the commencement of the Work, Contractor shall provide good and sufficient Performance Bond and Payment Bond approved by the City, each in an amount equal to the 100% of the Contract sum, for the faithful performance of the Work in all respects and indemnifying City for any claims or liens for labor, work, equipment or material provided by others in the performance of the Work. The amount of the Performance Bond and Payment Bond shall be increased whenever the Contract Sum is increased for any reason.

At the conclusion of the Construction and prior to Final Acceptance of the Work by the City, the Contractor shall provide a 10% Maintenance Bond for a period of **two (2) years** from the date of Final Acceptance by the City. A surety licensed to do business as a surety in the state of Oregon shall provide the Maintenance Bond.

The acceptance by the Contractor of Final Payment shall be and shall operate as a release to the City of all claims and all liability to the Contract other than claims in stated amounts as may be specifically excepted by the Contractor in writing prior to the request for final payment for all things done or furnished in connection with this work and for every act and neglect of the City and its agents and others relating to or arising out of this work. However, any payment, final or otherwise, or any acceptance, shall not release the Contractor or its sureties from any obligations under the Contract Documents or the Performance and Payment Bonds or diminish the Agency's rights under the Guaranty Provisions.

In addition to and not in lieu of any other warranties required under the Contract make all necessary repairs and replacements to remedy, in a manner satisfactory to the Engineer and at no cost to the Agency, any and all defects, breaks, or failures of the Work occurring during the specified warranty period due to faulty or inadequate materials or workmanship. Repair damage or disturbance to other improvements under within, or adjacent to the Work, whether or not caused by settling, washing, or slipping, when such damage or disturbance is caused, in whole or in part, from activities of the Contractor in performing his duties and obligations under this Contract when such defects or damage occur within the warranty period. The two-year maintenance period required shall, with relation to such required repair, be extended one year from the date of completion of such repair or to the end of the original two-year maintenance period, whichever comes later.

If Contractor, after written notice, fails within ten days to proceed to comply with the terms of this section, Agency may have the defects corrected, and Contractor and Contractor's Surety shall be liable for all expense incurred. In case of an emergency where, in the opinion of the Engineer, delay would cause serious loss or damage, repairs may be made without notice

being given to the Contractor with the Contractor or surety paying the cost of repairs. Failure of the Engineer to act in case of an emergency shall not relieve Contractor or Surety from liability and payment of all such costs.

9. **Termination and Compensation**. City may terminate this contract or suspend the Work at any time as provided in the specifications.

10. **Performance for Goods and Services.** In performance of the Work, Contractor shall prefer materials that have been manufactured or produced in the state of Oregon, if price, fitness, availability and quality are otherwise equal.

11. **Non-Resident Contractor.** If Contractor is not a resident bidder as defined in ORS 279A.120, and the contract price exceeds $10,000, the Contractor must report to the Department of Revenue, on the department's form, the total contract price, terms of payment, length of contract and such other information as the department may require before the Contractor may receive final payment under the Contract. The Contractor must provide copies of all forms filed with the Department to the City to receive final payment.

12. **Laws and Ordinances**. In addition to those laws, rules and ordinances specifically identified in this Contract, Contractor shall comply with and require its Subcontractors to comply with all applicable provisions of Federal, State and local statutes, ordinances, orders, rules and regulations.

13. **Default and Willful Violation**. If the Contractor willfully violates any of the provisions of the Sherwood Code, or any of the provisions of law governing public contracts, or if Contractor knowingly files false affidavits of compliance required under the Contract, Contractor shall waive for a period of one year any right to bid upon any public improvement project let by City. If Contractor or any of Contractor's Subcontractors violates any such provisions or files any such false affidavits of compliance, or in the event Contractor otherwise fails to perform any of its obligations under this Contract, time and quality of performance being of the essence, City may, at its option, terminate this Contract upon written notice to Contractor. In the event of a termination of this Contract or a subcontract under these provisions, Contractor or the Subcontractor, if applicable, shall forfeit all rights under this Contract or the subcontract, as the case may be. The City's claim for damages under paragraph 15 and any other relief available to City resulting from the Contractor's breach shall survive a termination of the Contract.

14. **Liquidated Damages**. In the event the Work is not completed within the Contract Time as specified in Bid Statement, or as may be extended in accordance with the Contract's terms, Contractor will pay to City, or City may withhold from any payment due Contractor, Liquidated Damages as specified in the specifications. The parties believe that due to the costs of bringing an action and the difficulty of establishing the exact amount of damages City will incur, it would be inconvenient and infeasible for City to bring an action for the actual damages it will incur because of Contractor's failure to complete the Work within the Contract Time. In order to compensate City for the damages City will suffer because of a delay, the amount City would be damaged for every Calendar Day completion is delayed is $500.00 per Calendar Day. The parties agree that the sum set as Liquidated Damages is reasonably related to City's anticipated damages per Calendar Day after the Completion Date that the Work is not completed. Contractor agrees that any liquidated damages imposed under the Contract is the best estimate of the City's damages and is not a penalty. Contractor will not contest such sum as being other than the best measure of damages in the event liquidated damages become payable under these provisions.

15. **Notices**. Any written notices permitted or required by this Contract shall be deemed given when personally delivered, or five days after deposit in the United States mail, postage fully prepaid, certified, return receipt requested, addressed to the representatives of the parties as set forth below or when delivered by electronically confirmed facsimile transmission to the FAX address and attention of the representatives of the parties set for below:

Contractor: _____, Project Superintendent

_____

_____

_____

City: City Engineer, City of Sherwood

or such other address as either party may provide to the other by notice given in accordance with this provision.

16. **Contract Documents/Interpretation.** Where possible, all parts of the Contract shall be interpreted in a manner that avoids conflict between the various documents and their provisions. In the event that any provision of this Document conflicts with any provision of the specifications, the provision that is most detailed shall prevail. In the event that any other component part of the Contract conflicts with any provision of any other component part, the precedence of documents shall be as set forth in the Special Provisions.

17. **Governing Law, Jurisdiction and Venue.** This Contract shall be governed by and interpreted in accordance with the laws of the State of Oregon, without respect to conflict of laws principles. Notwithstanding any contrary provisions in the Contract Documents, any litigation arising out of or relating to this Contract shall be tried to a court without a jury. Any claim or action must be brought in the Circuit Court of Washington County, Oregon. If a claim or action 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 paragraph be construed as a waiver by the City of any form of defense or immunity, whether sovereign immunity, governmental immunity or otherwise, from any claim or from the jurisdiction of any court. Contractor by execution of the Contract hereby consents to the personal jurisdiction of the courts referenced in this paragraph.

18. **Dispute Resolution.** Disputes will be resolved in accordance with Section 00199 of the General Conditions in ODOT's 2015 Standard Specifications as modified in the Supplemental Specifications and project Special Provisions.

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.

19. **Payment of Costs, Expenses and Attorney's Fees.** Notwithstanding any language to the contrary in the Contract Documents, each party is responsible for all of its own costs and

fees, including expert fees and attorney fees. This includes any costs and fees incurred in any trial and in any appeal.

20. **No Third Party Beneficiaries.** The parties to this Contract do not intend to confer on any third party any rights under this Contract. All Subcontractors are third parties.

21. **Survival.** Any obligation arising under the Contract which is not, or cannot be performed or paid prior to the expiration or termination of the Contract, including, but not limited to, all provisions concerning the quality of the Work, warranties and obligations for payment, indemnification, and reimbursement, shall survive termination or expiration of the Contract.

22. **Integration; Amendment.** The Contract includes the entire agreement between the parties as of its date of execution and shall not be modified or amended, except as expressly provided in the Contract.

23. **Effective Date**. The effective date of the Contract shall be the latest date of signature by the parties.

24. **Prompt Payment.** The Contractor shall:

(a) Make payment promptly, as due, to all persons supplying to the contractor labor or material for the performance of the work provided for in the Contract.

(b) Pay all contributions or amounts due the Industrial Accident Fund from the contractor or subcontractor incurred in the performance of the Contract.

(c) Not permit any lien or claim to be filed or prosecuted against the state or a county, school district, municipality, municipal corporation or subdivision thereof, on account of any labor or material furnished.

(d) Pay to the Department of Revenue all sums withheld from employees under ORS 316.167.

25. **Drug Testing.**

(a) The Contractor shall demonstrate that an employee drug testing program is in place at the time of submitting its bid, and that such program will be maintained throughout the Contract period, including any extensions. The failure of Contractor to have, or to maintain such a drug testing program is grounds for rejection of a bid or immediate termination of this Contract.

(b) The City of Sherwood shall not be liable, either directly or indirectly, in any dispute arising out of the substance or procedure of Contractor's drug testing program. Nothing in this drug testing provision shall be construed as requiring Contractor to violate any legal, including constitutional, rights of any employee, including but not limited, to selection of which employees to test and the manner of such testing. The City shall not be liable for Contractor's negligence in establishing or implementing, failure to establish or implement a drug testing program, or for any damage or injury caused by Contractor's employees acting under the influence of drugs while performing work covered by this Contract. These are Contractor's sole responsibilities and nothing in this provision is intended to create any third party beneficiary rights against the City.

26. **Demolition Contracts to Require Material Salvage.** On demolition projects, the Contractor

is required to salvage or recycle construction and demolition debris, if feasible and cost-effective.

27. **Landscape Maintenance Projects to Require Composting or Mulching.** On Landscape Maintenance Projects, the Contractor is required to compost or mulch yard waste material at an approved site; if feasible and cost-effective.

28. **Conditions Concerning Payment of Claims by Public Officers to Person Furnishing Labor of Services when Contractor Neglects or Refuses to Make Prompt Payment.** If the Contractor fails, neglects or refuses to make prompt payment of any claim for labor or services furnished to the Contractor or a subcontractor by any person in connection with this Contract as the claim becomes due, the City may pay such claim to the person furnishing the labor or services and charge the amount of the payment against funds due or to become due to the Contractor by reason of the Contract.

29. **Conditions Concerning Neglect or Refusal to Make Prompt Payment of Claim by Contractor or First-Tier Subcontractor to Persons Furnishing Labor or Materials.** If the Contractor or a first-tier subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with this contact within 30 days after receipt of payment from the City or the Contractor, the Contractor or first-tier subcontractor shall owe the person the amount due plus interest charges commencing at the end of the 10-day period that payment is due under ORS 279C.580(4) and ending upon final payment, unless payment is subject to a good faith dispute as defined in ORS 279C.580. See additional text in ORS 279C.515(2).

30. **Complaints Concerning Contractor or Subcontractor Neglect or Refusal to Make Payment to Persons Furnishing Labor or Material.** If the Contractor or a subcontractor fails, neglects or refuses to make payment to a person furnishing labor or materials in connection with the public improvement contract, the person may file a complaint with the Construction Contractors Board, unless payment is subject to a good faith dispute as defined in ORS 279C.580.

31. **Condition Concerning Hours of Labor.** A person may not be employed for more than 10 hours in any one day, or 40 hours in any one week, except in cases of necessity, emergency or when the public policy absolutely requires it, and in such cases, except in cases of contracts for personal services as defined in ORS 279C.100, the employee shall be paid at least time and a half pay:

    (a) For all overtime in excess of eight hours in any one day or 40 hours in any one week when the work week is five consecutive days, Monday through Friday; or

    (b) For all overtime in excess of 10 hours in any one day or 40 hours in any one week when the work week is four consecutive days, Monday through Friday; and

    (c) For all work performed on Saturday and on any legal holiday specified in ORS 279C.540.

32. **Condition Concerning Payment for Medical Care.** The Contractor and all subcontractors, as applicable, 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 or subcontractor, as applicable, of all sums that the Contractor or subcontractor, as applicable, agrees to pay for the services and all moneys and sums that the Contractor or subcontractor, as applicable, collected or deducted from the wages of employees under any

law, contract or agreement for the purpose of providing or paying for the services.

33. **Condition Concerning Payment for Providing Workers' Compensation.** All subject employers working under the Contract are either employers that will comply with ORS 656.017 or employers that are exempt under ORS 656.126.

34. **Retainage.** The amount to be retained from progress payments will be 2.5% of the value of the Work accomplished as noted in Section 00195.50(b) of the specifications, and will retained in one of the forms specified in Section 00195.50(c) of the specifications.

33. **Contractor Claims. Notice of Claim.** Claims on public works bonds and payment bonds shall be submitted in writing and follow the procedures established by ORS 279C.600 and ORS 279C.605.

34. **Certified Statements Regarding Payment of Prevailing Rates of Wage; Retainage**. (1) The contractor or the contractor's surety and every subcontractor or the subcontractor's surety shall file certified statements with the public agency in writing, on a form prescribed by the Commissioner of the Bureau of Labor and Industries, certifying:

(a) The hourly rate of wage paid each worker whom the contractor or the subcontractor has employed upon the public works; and

(b) That no worker employed upon the public works has been paid less than the prevailing rate of wage or less than the minimum hourly rate of wage specified in the contract.

The certified statement shall be in accordance with ORS 279C.845.

CITY OF SHERWOOD	**CONTRACTOR**
By: _____ (signature)	By: _____ (signature)
Date: _____	Date: _____

Exhibit A

CITY OF SHERWOOD – STANDARD CONTRACT PROVISIONS

1. **Notice in Writing to Employees who Work on a Public Contract.** An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to work.

2. **Provisions concerning environmental and natural resources laws; remedies.** The contractor shall adhere to all federal, state and local agencies (Oregon State of Environmental Quality, Clean Water Services, Washington County and City of Sherwood) that have enacted ordinances, rules or regulations dealing with the prevention of environmental pollution and the preservation of natural resources that affect the performance of the contract. See additional text in ORS 279C.525.

3. **Known Environmental Conditions.** See project plans and specifications for description of any known environmental conditions, if any. The contractor shall apply best management practices as pertaining to sediment and erosion control to insure that sediments do not leave the project site. See additional text in ORS 279C.525.

4. **Contractor's Relations with Subcontractors.** The Contractor shall include in each subcontract (for property or services entered into by the contractor and a first-tier subcontractor, including a material supplier, for the purpose of performing a construction contract):

   (a) A payment clause that obligates the contractor to pay the first-tier subcontractor for satisfactory performance under its subcontract within 10 days out of such amounts as are paid to the contractor by the contracting agency under the contract.

   (b) An interest penalty clause that obligates the contractor, if payment is not made within 30 days after receipt of payment from the contracting agency, to pay to the first-tier subcontractor an interest penalty on amounts due in the case of each payment not made in accordance with the payment clause included in the subcontract under paragraph (a) of this section. See additional text in ORS 279C.580.

   The contractor shall include in each of the contractor's subcontracts, for the purpose of performance of such contract condition, a provision requiring the first-tier subcontractor to include a payment clause and an interest penalty clause conforming to the standards of subsections 4(a) & 4(b) above 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 supplier.

5. **State Minimum Wage in Contracts.** All workers must be paid not less than the specified minimum hourly rate of wage in accordance with ORS 279C.838 and 279C.840.

6. **Prevailing Minimum Wage when Both State and Federal Minimum Wages are Applicable.** If a public works project is subject both to ORS 279C.800 to 279C.870 and to the Davis-Bacon Act, every contract and subcontract must provide that workers on the public works must be paid not less than the higher of the applicable state or federal prevailing rate of wage.

7. **Contract Bond Filed with Construction Contractor's Board.** Contractor shall have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (4), (7), (8) or (9).

8. **Subcontract Bond Filed with Construction Contractor's Board.** Every subcontract shall have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (4), (7), (8) or (9).

9. **Provide the Liability of the Public Agency for Unpaid Minimum Wages.** The contractor and any subcontractor must comply with ORS 279C.840.

10. **Failure to Provide Prevailing Minimum Wage.** Prevailing rates of wage are referenced in the specifications for the contract for public works as required under ORS 279C.830 (1)(a), and workers on the public works must be paid not less than the higher of the applicable state or federal prevailing rate of wage as required under ORS 279C.830 (1)(d).

11. **Statement of Compliance.** Before any payment is made to Contractor, Contractor shall file with City a statement, under oath, that it has complied with all provisions of State law governing contractors on a public contract and that it has complied with the provisions of the Sherwood Code governing fair employment practices. In addition, Contractor shall file with City a sworn statement by each of its subcontractors to the same effect.

Exhibit B

CERTIFICATION OF BIDDER/CONTRACTOR EMPLOYEE DRUG TESTING PROGRAM ORS 279C.505(2)

BIDDER'S NAME: _____

ORS 279C.505(2) provides that every public improvement contract contain a condition that the contractor shall demonstrate that an employee drug testing program is in place. The City's award of the contract (the "Contract") for which this certificate is required is conditioned, in part, upon the bidder's demonstration of compliance with the provisions of ORS 279C.505. If the bidder named above (the "Bidder") is awarded the Contract, this certificate shall become a part of, and shall constitute a continuing representation and warranty under, the Contract.

To induce the City of Sherwood to award the Contract to the Bidder, the undersigned, as the duly authorized representative of the Bidder, hereby represents and warrants, on behalf of the Bidder:

1) That Bidder has and enforces, and at all times during the term of the Contract will have and enforce, a written employee drug testing policy that, at a minimum:

   a) Requires pre-employment drug testing;

   b) Requires drug testing of an employee when the Bidder has reasonable cause to believe the employee is under the influence of drugs;

   c) Requires compliance with the Oregon Department of Transportation Commercial Drivers License drug testing regulations.

2) A copy of the Bidder's current written employee drug testing policy will be available for inspection by the City at any time upon the City's request.

3) The Bidder/Contractor understands and agrees that its representations and warranties herein will become a continuing part of the Contract and that breach of any of the foregoing will be sufficient grounds for disbarment under ORS 279B.130.

The City of Sherwood shall not be liable, either directly or indirectly, in any dispute arising out of the substance or procedure of Contractor's drug testing program. Nothing in this drug testing provision shall be construed as requiring Contractor to violate any legal, including constitutional, rights of any employee, including but not limited to, selection of which employees to test and the manner of such testing. The City shall not be liable for Contractor's negligence in establishing or implementing, failure to establish or implement a drug testing policy, or for any damage or injury caused by Contractor's employees acting under the influence of drugs while performing work covered by this Contract. These are Bidder/Contractor's sole responsibilities.

In Witness Whereof, the Bidder has caused this document to be executed by its duly authorized representative on the date shown below.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Exhibit C

CERTIFICATION OF COMPLIANCE WITH OREGON TAX LAWS

The Contractor, for the purposes of this contract, hereby certifies that to the best of his/her knowledge that he/she is in compliance with all tax laws stated in ORS 305.385.

Dated _____ 20___

_____
Contractor's Signature

Exhibit D

CERTIFICATION OF REGISTRATION WITH THE CONSTRUCTION CONTRACTORS BOARD

The Contractor, for the purposes of this contract, hereby certifies that he/she and all subcontractors performing work described in ORS 701.005(2) (i.e., construction work) are registered with the Construction Contractors Board in accordance with ORS 701.035 to ORS 701.091.

Dated _____ 20___

_____
Contractor's Signature

CCB # _____

Exhibit E

CERTIFICATION OF WORKERS' COMPENSATION COVERAGE

The Contractor, for the purposes of this contract, hereby certifies that it is currently providing Oregon Workers' Compensation coverage for all its employees and will maintain coverage throughout the course of the project through one of the following methods:

1. ☐ "Carrier-insured Employer" (State Accident insurance Fund Corp. or other authorized insurer)

   Insurance Company Name_____

   ID/Policy Number_____

2. ☐ "Self Insured Employer" (Certified by the Workers' Compensation Division)

   ID number as assigned by
   the Work' Compensation Division_____

3. ☐ I am an independent contractor and will perform all work under this contract without the assistance of others.

In the event of cancellation or change in the information above, Contractor certifies that it will immediately notify the Department of said cancellation or change and will obtain alternate coverage.

Dated_____ 20___

_____
Contractor's Signature

REMINDER ADDITIONAL INFORMATION NEEDED

Has your insurance carrier filed with Oregon Workers' Compensation Division a guaranty contract as proof of coverage for your employees working in Oregon?

For filing information, contact the Workers' Compensation Division at Labor and Industries Building: Salem, OR 97301; Phone (503) 947-7810.

PERFORMANCE BOND

Bond No._____

Project Name: **Columbia Street Regional Storm Water Facility Pipe Mitigation**

_____(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 Sherwood 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 purposes 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 Sherwood, the Plans, Specifications, terms and conditions of which are contained in the above-referenced Solicitation;

WHEREAS, the terms and conditions of the contract, together with applicable Plans, Standard specifications and Standard Drawings, Supplemental Specifications and Special Provisions, Addenda, Bid Schedule, Prevailing Wage Rates 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, conditions and provisions of the Contract, in all respects, and shall well and truly and fully do and perform all matters and things undertaken by Contractor to be performed under the Contract, upon the terms set forth therein, and within the time prescribed therein, or as extended as provided in the Contract, with or without notice to the Sureties, and shall indemnify and save harmless the City of Sherwood, and the _____ _____ (name of institution and any other Owner agency), and members thereof, its officers, employees and agents, against any direct or indirect damages or claim 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 Principal or its subcontractors, and shall in all respects perform said contract according to law, then this obligation is to 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 Sherwood, or the above-referenced agency(ies), be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapter 279C, the provisions of which hereby are incorporated into this bond and made a part hereof.

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

Dated this _____ day of _____, 20__.

PRINCIPAL: _____

By_____
Signature

_____
Official Capacity

Attest: _____
Corporation Secretary

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

PAYMENT BOND

Bond No. _____
Solicitation _____
Project Name **Columbia Street Regional Storm Water Facility Pipe Mitigation**

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

KNOW ALL MEN BY THESE PRESENTS: That, WHEREAS, the City of Sherwood, on _____, _____, has awarded to _____, hereinafter designated as "Principal", a Contract for construction of the _____, the terms and provisions of which contract are incorporated herein by reference, and;

WHEREAS, said Principal is required to furnish a bond in connection with this said Contract, providing that if said Principal, or any of his or its subcontractors, shall fail to pay for any materials, provisions, provender or other supplies or teams used in, upon, for, or about the performance of the work contracted to be done, or any other work or labor done thereon of any kind, the Surety of this body will pay the same to extend hereinafter set forth;

NOW, THEREFORE, we the Principal and _____, as Surety, are held and firmly bound unto the City of Sherwood, in the penal sum of _____ Dollars ($_____), lawful money of the United States, being one hundred percent (100%) of the Contract amount for the payment of which sum well and truly to be made, we bond ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

NOW, THEREFORE, if the above bounden Principal or any of his subcontractor shall promptly make payment to all persons supplying labor and material or amounts due in the prosecution of the work provided for in said Contract, and any and all duly authorized modifications of said Contract that may hereafter be made, then this obligation shall be void; otherwise, this obligation shall remain in full force and virtue; and if the bounden Principal or any of his subcontractors fails to promptly pay any of the persons or amounts due with respect to work or labor performed by any such claimant, the Surety will pay for the same, in an amount not exceeding the sum specified in this bond, and also in case suit brought upon this bond, a reasonable attorney's fee, be fixed by the court; and this bond shall insure to the benefit of any persons so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

The bond shall insure to the benefit of any all persons, companies and corporations entitle to file claims, so as to give a right of action to them or their assigns in any suit brought upon this bond.

And the 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 to the work to be performed thereunder, or the Specifications accompanying the same shall in any wise 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.

IN WITNESS WHEREOF, the above bounden parties have executed this instrument under their seals this _____ day of _____, _____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Nonpayment of the bond premium will not invalidate this bond nor shall the City of Sherwood, or the above-referenced agency(ies), be obligated for the payment of any premiums.

This bond is given and received under authority of ORS Chapter 279C, the provisions of which hereby are incorporated into this bond and made a part hereof.

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

Dated this _____day of _____, 20__.

PRINCIPAL: _____

By _____
Signature

_____
Official Capacity

Attest: _____
Corporation Secretary

SURETY: _____
[Add signatures for each if using multiple bonds]

BY ATTORNEY-IN-FACT:
[Power-of-Attorney must accompany each bond]

_____
Name

_____
Signature

_____
Address

_____
City State Zip

_____
Phone Fax

STATE OF OREGON

STATUTORY PUBLIC WORKS BOND

Surety bond #: _____ CCB # (if applicable): _____

We, _____, as principal, and _____, a corporation qualified and authorized to do business in the State of Oregon, as surety, are held and firmly bound unto the State of Oregon for the use and benefit of the Oregon Bureau of Labor and Industries (BOLI) in the sum of thirty thousand dollars ($30,000) lawful money of the United States of America to be paid as provided in ORS chapter 279C, as amended by Oregon Laws 2005, chapter 360, for which payment well and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by this agreement.

WHEREAS, the above-named principal wishes to be eligible to work on public works project(s) subject to the provisions of ORS chapter 279C, as amended by Oregon Laws 2005, chapter 360, and is, therefore, required to obtain and file a statutory public works bond in the penal sum of $30,000 with good and sufficient surety as required pursuant to the provisions of section 2, chapter 360, Oregon Laws 2005, conditioned as herein set forth.

NOW, THEREFORE, the conditions of the foregoing obligations are that if said principal with regard to all work done by the principal as a contractor or subcontractor on public works project(s), shall pay all claims ordered by BOLI against the principal to workers performing labor upon public works projects for unpaid wages determined to be due, in accordance with ORS chapter 279C, as amended by Oregon Laws 2005, chapter 360, and OAR Chapter 839, then this obligation shall be void; otherwise to remain in full force and effect.

This bond is for the exclusive purpose of payment of wage claims ordered by BOLI to workers performing labor upon public works projects in accordance with ORS chapter 279C, as amended by Oregon Laws 2005, chapter 360.

This bond shall be one continuing obligation, and the liability of the surety for the aggregate of any and all claims which may arise hereunder shall in no event exceed the amount of the penalty of this bond.

This bond shall become effective on the date it is executed by both the principal and surety and shall continuously remain in effect until depleted by claims paid under ORS chapter 279C, as amended by Oregon Laws 2005, chapter 360, unless the surety sooner cancels the bond. This bond may be cancelled by the surety and the surety be relieved of further liability for work performed on contracts entered after cancellation by giving 30 days' written notice to the principal, the Construction Contractors Board, and BOLI. Cancellation shall not limit the responsibility of the surety for the payment of claims ordered by BOLI relating to work performed during the work period of a contract entered into before cancellation of this bond.

IN WITNESS WHEREOF, the principal and surety execute this agreement. The surety fully authorizes its representatives in the State of Oregon to enter into this obligation.

SIGNED, SEALED AND DATED this _____ day of _____, 20 _____

Surety by:	Principal by:
_____ (Seal)	_____
Company Name	*Name*
_____	_____
Signature	*Signature*
_____	_____
Title (e.g. Attorney-in-Fact)	*Title*
	_____
	Address
	_____
	City *State* *Zip*

SEND BOND TO: **Construction Contractors Board**
PO Box 14140
Salem, OR 97309-5052
Telephone: (503) 378-4621

City of Sherwood
Oregon

Home of the Tualatin River National Wildlife Refuge

City of Sherwood
22560 SW Pine St.
Sherwood, OR 97140
Tel 503-625-5522
Fax 503-625-5524
www.sherwoodoregon.gov

2009 Top Ten Selection

2007 18th Best Place to Live

Sherwood
2006
All-America City Finalist

_____, 2016

Re: **Notice of Intent to Award**

Columbia Street Regional Storm Water Facility Pipe Mitigation Construction Services

Dear Proposer:

This is the Notice of Intent to Award required to be posted on the City's website pursuant to OAR 137-049-0395(1).

The City of Sherwood received _____ bids for work associated with the **Columbia Street Regional Storm Water Facility Pipe Mitigation**. The bids were opened at the Sherwood City Hall on February 4, 2016 at 2:00 PM. The lowest responsive bidder was **XXXXXX** with a quote of **$XX.XX**.

City staff will recommend award of the contract for the **Columbia Street Regional Storm Water Facility Pipe Mitigation** to **XXXXXX**.

If you wish to protest the City's Intent to Award, you must do so within seven (7) days after the date of the issuance of this notice. The protest must follow the process set forth in OAR 137-049-450(4). Any protest not so complying, will not be considered by the City. Protests must be directed to:

Craig Christensen, P.E.
City of Sherwood – Engineering Department
22560 SW Pine St
Sherwood, OR 97140

If you have any questions, please contact Craig Christensen, P.E. at (503) 925-2301 or christensenc@sherwoodoregon.gov

City of Sherwood
Oregon

Home of the Tualatin River National Wildlife Refuge

City of Sherwood
22560 SW Pine St.
Sherwood, OR 97140
Tel 503-625-5522
Fax 503-625-5524
www.sherwoodoregon.gov

2009 Top Ten Selection

2007 18th Best Place to Live

Sherwood
2006
All-America City Finalist

_____, 2016

XXX
XXX
XXX

NOTICE OF AWARD

Columbia Street Regional Storm Water Facility Pipe Mitigation
Construction Services

You are notified that your bid dated February 4, 2016 for the above stated project has been considered. You are the apparent low responsive bidder for the project and have been awarded the subject contract.

Attached are 3 copies of the Contract Agreement. Please sign each and resubmit. Also include 1 copy of the Performance Bond, Payment Bond, Proof of Liability Insurance, Oregon Workers Compensation Certificate of Insurance and a copy of your Statutory Public Works Bond sent to the State of Oregon.

Once the Contract Agreements have been signed by the City Manager, one fully signed Contract Agreement will be given to you at the preconstruction meeting set for _____, 2016 at City Hall.

We look forward to working with you on this project.

Sincerely,

CITY OF SHERWOOD

By:_____
Craig Christensen, P.E.
Engineering Associate II

BUREAU OF LABOR AND INDUSTRIES
NOTICE OF AWARD OF PUBLIC WORKS CONTRACT
(For use by Public Agencies in Complying with ORS 279.363)

NOTE: Effective January 1, 2002, ORS 279.363 was amended to require that public contracting agencies include with this form a copy of the disclosure of first-tier subcontractors submitted pursuant to ORS 279.027.

1. CONTRACTING AGENCY INFORMATION

Agency Name _____ Agency Number _____

Address _____

City, State, Zip _____

Agency Representative _____ Phone _____

2. CONTRACT INFORMATION

Project Name _____ Project Number _____

Project Manager Name _____ FAX Number _____

Phone Number _____

Project Location (Street(s), City, State) _____

Project County _____ Contract Amount _____

Source of Funds (i.e., 100% Federal Funds, 50/50 Federal/State, 100% Local, etc.) _____

If this project is federally funded and subject to the Davis-Bacon Act, do not submit this form to the Oregon Bureau of Labor and Industries. If federal funds are involved, but the project is subject to the Oregon Prevailing Wage Rate Law, please specify.

Date Contract Specification First Advertised for Bid _____

Date Contract Awarded _____ Date Work Expected to Begin _____

Date First Progress Payment Due Expected Date of Completion

3. PRIME CONTRACTOR INFORMATION

Name _____

Address _____

City, State, Zip _____ Phone _____

Construction Contractors Board Registration Number _____

Name of Bonding Company _____

Address _____

Agent Name/Phone _____

Bond Number _____

O Copy of first-tier subcontractors attached (see NOTE above).

Signature of person completing form _____

Printed name _____ Date _____

THIS FORM WILL BE RETURNED TO THE CONTRACTING AGENCY FOR CORRECTION AND RESUBMITTAL IF INCOMPLETE.

RETURN THIS COMPLETED FORM TO:

Prevailing Wage Rate Unit
Wage and Hour Division, Room 1160
Bureau of Labor and Industries
800 N.E. Oregon Street, #32
Portland, OR 97232
Telephone: (503) 731-4723
FAX: (503) 731-4606

City of Sherwood Oregon
Home of the Tualatin River National Wildlife Refuge

Community Development Division
Engineering Department
22560 SW Pine St.
Sherwood, OR 97140
503-925-2309

NOTICE TO PROCEED

PROJECT NAME:	**Columbia Street Regional Storm Water Facility Pipe Mitigation**
DATE:	XXX, 2016
PROJECT NO.:	N/A
COUNCIL RESOLUTION:	2016-XXX
C.O.S. PROJECT MANAGER:	Craig Christensen, P.E.

TO: XXXXX
Attn: XXX

ADDRESS: XXX
XXX

PHONE/EMAIL: (503) – email address

CONTRACT: City of Sherwood and XXX

Columbia Street Regional Storm Water Facility Pipe Mitigation

You are hereby notified that the Contract for the aforementioned project has been properly executed; performance and payment bonds and proof of insurance has been received.

In accordance with the Contract Agreement, all Contract Work shall be completed by the completion date described in the Bid Booklet on or before October 14, 2016 which is ____ calendar days from the issuance of this Notice to Proceed.

CITY OF SHERWOOD

Craig Christensen, P.E.
Project Manager

Division Three
General Requirements

PREVAILING WAGE RATES

FOR

PUBLIC WORKS CONTRACTS IN OREGON

OREGON BUREAU OF LABOR AND INDUSTRIES

BOLI PREVAILING WAGE RATES (PWR)

This Project is subject to Oregon Bureau of Labor and Industry – Prevailing Wage Rates for Public Works Projects in Oregon, effective January 1, 2016 with amendments effective January 1, 2016.

This publication is available on the web at:
http://www.oregon.gov/boli/WHD/PWR/Pages/PWR_Rate_Publications_2016.aspx

This is a local project. No Federal Funds are being used on this project. Therefore the project is not subject to the Davis-Bacon Act (40 U.S.C. 3141 et seq.).

GENERAL REQUIREMENTS

STANDARD SPECIFICATION

The Oregon Standard Specifications for Construction 2015 edition, as issued by the Oregon Department of Transportation, as amended herein, these Special Provisions, the Advertisement of Bids, the Accepted Proposal, the Agreement, the Special Specifications, the Plans, the Standard Details appended hereto, and all addenda issued prior to the execution of the agreement and all modifications thereto comprise the Contract documents or the contract.

CONSTRUCTION CONTRACTORS BOARD

The contractor must:

(a) Have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (4), (7), (8) or (9).

(b) Require, in every subcontract, that the subcontractor have a public works bond filed with the Construction Contractors Board before starting work on the project, unless exempt under ORS 279C.836 (4), (7), (8) or (9).

Division Four
Special Provisions

SPECIAL PROVISIONS AND REVISIONS TO STANDARD SPECIFICATIONS

CITY OF SHERWOOD
FISH PASSAGE MITIGATION
SHERWOOD, OREGON

CITY OF SHERWOOD PROJECT NO.: 8069

City of Sherwood Oregon

DATE: December 31, 2015

PREPARED BY

AKS ENGINEERING & FORESTRY

DESIGN ENGINEER: AKS Engineering & Forestry, LLC
Paul Sellke, PE, GE
12965 Herman Road, Suite 100
Tualatin, OR 97062
Phone: 503-563-6151
Email: PaulS@aks-eng.com

AKS JOB NUMBER: 3068

RENEWAL: JUNE 30, 2016

TABLE OF CONTENTS FOR SPECIAL PROVISIONS AND REVISIONS TO STANDARD SPECIFICATIONS

SPECIAL PROVISIONS

WORK TO BE DONE

The plan set for this project is entitled "Columbia Street Regional Stormwater Facility Fish Passage Mitigation." The project is located in the City of Sherwood, Oregon in Washington County. The Scope of Work to be done under this contract consists of the following:

1. Decommission/remove existing on-site storm culvert;
2. Construct temporary stormwater bypass system to pass creek flows during construction;
3. Install 39 linear feet (minimum) of proposed bottomless multi-plate arch storm culvert;
4. Perform plantings, seeding, vegetated corridor enhancement, and other environmental work; and
5. Other incidental work as required to complete the project as called for by the plans and specifications.

WORK AREA LIMITS

Contractor shall confine the construction operations to City of Sherwood property, City of Sherwood easement areas, and rights-of-way. Any occupation or use of additional areas by Contractor shall be by written agreement between Contractor and said property owner with a copy of said agreement submitted to the City Project Manager. Contractor shall restore all areas impacted by construction to a condition equal to or better than the preconstruction condition, with signed approval by the property owner submitted to the City Project Manager. Easement locations are shown on the Construction Plans (under separate cover).

APPLICABLE SPECIFICATIONS

The Specification that is applicable to this project is the 2015 edition of the "Oregon Standard Specifications for Construction" produced by the Oregon Department of Transportation and the Oregon Chapter of the APWA. All number references in these Special Provisions shall be understood to refer to the Sections and Subsections of the Standard Specifications and Supplemental Specifications bearing like numbers, and to Sections and Subsections contained in these Special Provisions in their entirety. Unless specifically noted in these Special Provisions, all Specifications included in the 2015 edition of the "Oregon Standard Specifications for Construction" shall be strictly adhered to.

CLASS OF PROJECT

This is a City of Sherwood Public Works project. The construction of this project is NOT federally funded.

REVISIONS TO STANDARD SPECIFICATIONS

SECTION 00110 – ORGANIZATION, CONVENTIONS, ABBREVIATIONS, AND DEFINITIONS

Comply with Section 00110 of the Standard Specifications, supplemented and/or modified as follows:

00110.10 Abbreviations

Add the following:

COS –	City of Sherwood
PCC –	Portland Cement Concrete

00110.20 Definitions – Add or modify definitions as follows:

Agreement – Same as "Contract."

Amendment – A contract modification for Additional Work, Changed Work, Extra Work, Field Directives, or other changes. An Amendment changes the contract value, scope, and/or time. Amendments require formal approval by the City prior to commencement of such work.

Approved Equal – Materials or services proposed by the Contractor and approved by the City as equal substitutes for materials or services specified.

Award – Same as "Notice to Award."

Bid – A written offer by a Bidder on forms furnished by the City to do work stated in the bid documents at the prices quoted. "Bid" is synonymous with "proposal" in these bid documents.

Bid Booklet – The bidding documents bound with the Solicitation Documents that contain the information identified in 00120.10.

Bid Section – The portion of the Solicitation Documents labeled, "Division One – Bidding Requirements."

Bonds – The bond or surety bond is a written document given by the surety and principal to the obligee to guarantee a specific obligation.

Change Order – A price agreement for Extra Work, Changed Work, Field Directives, or other changes. A Change Order does not change the contract value, scope, or time

until it is incorporated into an Amendment. Change Orders will be agreed upon, in writing, by the City Project Manager and the Contractor's designated representative.

Contract – The written contract agreement, including amendments, signed by the Contractor and City, which describes the work to be done, the contract amount, and defines the relationships and obligations of the Contractor and the City.

City – The term "City" shall mean the City of Sherwood, including City Councilors, employees, and agents of the City authorized to administer the conditions of these contract documents.

Department – Synonymous with "Agency."

Engineer – The consultant's Project Manager or the City's Project Manager, either acting directly or through an authorized representative(s).

Invitation to Bid – The public announcement (Notice to Contractors) inviting bids for work to be performed or materials to be furnished.

Legal Holiday – As defined in 00170.65 "Minimum Wage and Overtime Rates for Public Works Projects."

Lump Sum – A method of payment providing for one all-inclusive cost for the work or for a particular portion of the work.

Notice of Award – A written notice from the City notifying Bidders that the City intends to award to the responsible Bidder submitting the lowest responsive bid.

ODOT Procurement Office – City of Sherwood.

Owner – Synonymous with "Agency."

Project Manager – The Owner's representative that directly supervises the engineering and administration of the contract.

Shop Drawings – Synonymous with "Working Drawings."

Solicitation Document – Synonymous with "Bid Documents."

Standard Drawings – The Agency-prepared detailed drawings for work or methods of construction that normally do not change from project to project. Standard Drawings include the ODOT Standard Drawings.

State – Where the term "State," "State of Oregon," or "ODOT" appears in the contract documents, it shall mean "City of Sherwood," "State of Oregon," or "ODOT," as applicable because of context.

Substantial Completion – The work or specified parts of the work that are sufficiently complete, in accordance with the contract documents, such that they can be utilized by the City for the purposes intended as determined by the Engineer.

END OF SECTION

SECTION 00120 – BIDDING REQUIREMENTS AND PROCEDURES

Comply with Section 00120 of the Standard Specifications, supplemented and/or modified as follows:

00120.00 Prequalification of Bidders – Delete and replace with the following:

a. Prequalification is required and required forms or documentation must be filed two (2) days prior to the bid opening for the Bidder to retain appeal rights.

b. Proof of prequalification acceptance by either the State of Oregon Department of Transportation (ODOT), Washington County Department of Transportation Development (DTD), or any local municipality with a population equal or greater than 18,000 persons is acceptable to the City. Bidders may mail or fax proof of prequalification to the attention of the Project Manager.

c. Bidders must attend and be registered at a mandatory pre-bid site meeting. Failure to attend and be registered at the pre-bid meeting shall invalidate any bids submitted by non-registered bidders.

00120.01 General Bidding Requirements – Delete and replace with the following:

Paper bids shall be submitted in accordance with the requirements in the "Invitation to Bid."

00120.05 Requests for Plans, Special Provisions, and Bid Booklets – Delete and replace with the following:

Bidders must obtain the Solicitation Documents from the City of Sherwood.

Copies of the "Oregon Standard Specifications for Construction" and Supplements may be purchased from the Oregon Department of Transportation from the Plan Distribution Center in Salem, Oregon.

00120.10 Bid Booklet – Delete and replace with the following:

The Bidding Documents are bound with the Solicitation Documents, and labeled as "Division One – Bidding Requirements." The Bidding Documents may include, but are not limited to:

- Invitation to Bid
- Bidder's Checklist
- Bid Statement
- Bid Schedule
- First-Tier Subcontractor Disclosure Form
- Bid Bond
- Certificate of Non-Collusion

- Compliance with ORS 279C.840
- Certification of Asbestos Abatement
- Certificate of Non-Discrimination
- Customer Service Acknowledgment
- Prequalification Acknowledgement
- Bidder Responsibility Form
- Addendum Acknowledgment (Example)
- Special Provisions and Revisions to Standard Specifications
- The "Oregon Standard Specifications for Construction" by ODOT and APWA, 2015 edition
- Plans and drawings
- Other bid documents included or referenced in the bid documents
- Addenda, if any
- The Contract Form

00120.14 Pre-Bid Meeting – If stated in the Invitation to Bid, a pre-bid meeting will be held at the time and location as described. In addition, it will be stated if prospective bidder's attendance is mandatory or voluntary.

00120.15 Examination of Work Site and Solicitation Documents; Consideration of Conditions to be Encountered – Replace the last sentence of the third paragraph with the following:

Such notification shall also be made at least seven (7) calendar days prior to bid opening to provide Agency sufficient time to make necessary modifications and issue addenda to bidders.

00120.17 Use of Agency-Owned Land for Staging or Storage Areas – Delete and replace with the following:

As designated on the plans, the Contractor shall use designated areas on the project property for staging and storage. The Contractor shall not use public rights-of-way for staging and storage. Contractor to coordinate with City regarding the closure of the pedestrian pathway along the Cedar Creek tributary.

00120.25 Subsurface Investigations – Delete and replace with the following:

A copy of "Geotechnical Engineering Report" by Hardman Geotechnical Services, Inc. (dated July 22, 2015) is included in the bid documents 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.

00120.30 Changes to Plans, Specifications, or Quantities before Opening of Bids – Delete and replace with the following:

The City reserves the right to make necessary changes or corrections to the Bid Documents at any time prior to the opening of bids. Addenda and Contract Clarifications will be posted on the City's website. Potential bidders are responsible for checking the website (www.sherwoodoregon.gov) on a daily basis the last week before the bid opening date.

The City is not responsible for failure of bidders to receive notifications of changes or corrections made by the City and sent as stated above. Bids shall incorporate all Addenda, and a copy of all issued Addenda shall be included with bids. Bids opened and found not to be based on the changes or corrections, or found not to include a copy of all Addenda issued, will not be considered and will be deemed non-responsive.

00120.32 Changes to Quantities and Bid Items after Opening of Bids – Add the following section:

The City reserves the right to make changes to bid quantities and/or delete entire bid items at any time following the opening of bids.

00120.40 Preparation of Bids – Delete the following Paragraphs: (a)(2), (c)(2), (e)(2). Delete and replace Paragraph (f) with the following:

(f) **Disclosure of First-Tier Subcontractors** – Within two (2) working hours after the date and time of the deadline when the bids are due to the Public Contracting Agency for a public improvement, a Bidder shall submit to the Public Contracting Agency a disclosure of the first-tier Subcontractors that:

(A) Will be furnishing labor or will be furnishing labor and materials in connection with the public improvement; and

(B) Will have a contract value that is equal to or greater than five percent (5%) of the total project bid or $15,000, whichever is greater, or $350,000 regardless of the percentage of the total project bid.

The disclosure of first-tier Subcontractors shall include:

(a) The name of each Subcontractor;

(b) The dollar value of work; and

(c) The category of work that each Subcontractor will be performing.

If no subcontracts subject to the above disclosure requirements are anticipated, a Bidder shall so indicate by entering "NONE" or filling in the appropriate check box.

The Public Contracting Agency shall consider the bid of any Contractor that does not submit a Subcontractor disclosure to the Public Contracting Agency to be a non-responsive bid and may not award the contract to the Contractor.

Subcontractor lists may be submitted with the bid in the same envelope at the bid closing date and time. Those Subcontractor lists submitted after the bid closing shall be delivered in a separate sealed envelope that clearly identifies the contents. However, the Subcontractor lists must be submitted within two (2) hours of the bid closing date and time.

00120.40(h) Customer Service Agreement – Add the following subsection:

00120.40(h) Customer Service Agreement – To demonstrate a commitment to providing an exceptionally high level of customer service to the City and the community on this project, each Bidder shall complete the provided Customer Service Agreement. The Agreement certifies that the Bidder has read and understands the Sections of the Specifications emphasizing customer service, including public safety and convenience, protection and preservation of private property and existing vegetation, and related aspects of construction.

00120.45 Submittal of Bids – Delete all of Section (b) and first paragraph of Section (a) and replace with:

Paper Bids shall be submitted in accordance with the requirements in the Invitation to Bid.

00120.50 Submitting Bids for More than One Contract – Delete this Subsection.

00120.60 Revision or Withdrawal of Bids – Delete Section and replace with the following:

A revision to a bid after it has been submitted, but prior to the deadline for submission, will be allowed provided it is submitted in a sealed envelope and signed by an authorized individual. Revisions must include Bid Schedule, Bid Guarantee, Signature Page, and be submitted prior to the time set for receiving proposals.

A Bidder may withdraw a proposal after it has been submitted provided the withdrawal request is in writing from an individual authorized to sign the proposal and received prior to the time set for opening proposals.

00120.68 Mistakes in Bids – Add the following Section:

(a) General - Clarifications to or withdrawal of a bid after bid opening because of an inadvertent, non-judgmental mistake in the bid requires careful consideration by the City, to protect the integrity of the competitive bidding system and to ensure fairness to all Bidders. Bid corrections or withdrawal by reason of a non-judgmental mistake is

permissible, but only to the extent it is not contrary to the interests of the City or the fair treatment of other Bidders.

(b) Mistakes Discovered After Bid Closing But Before Award – This Subsection prescribes standards to be applied in situations where mistakes in bids are discovered after the time and date set for bid closing, but before award.

(1) Minor Informalities – Insignificant mistakes of form that are evident from the Bid Documents and do not affect price, quality, quantity, delivery, or contractual obligations, except in the case of informalities involving unit price. Minor informalities can be waived or corrected promptly, without prejudice, to other Bidders or to the City. Examples include, but are not limited to:

- Return of the number of signed bids or the number of other documents required by the Bid Documents;
- Failure to sign the Bid Form in the designated block, so long as a signature appears in the Bid Documents evidencing an intent to be bound;
- Failure to acknowledge receipt of an Addenda to the Bid Documents, but only if:
  - It is clear from the bid that the Bidder received the Addenda; and
  - Intended to be bound by its terms; or
  - The Addenda involved had a negligible effect on price, quality, quantity, or delivery.

(2) Mistakes Where Intended Correct Bid is Evident – If the mistake and the intended correct bid are clearly evident on the face of the Bid Form, or can be substantiated from accompanying documents, the City may accept the bid (e.g., typographical errors, errors in extending unit prices, transposition errors, and arithmetical errors). For discrepancies between unit prices and extended prices, unit prices will prevail.

(3) Mistakes Where Intended Correct Bid is not Evident – The City will 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 similarly evident or cannot be substantiated from accompanying documents.

00120.70 Rejection of Nonresponsive Bids – Delete and replace with the following:

A bid will be considered irregular and may be rejected if:

- The Bid Section provided is not used or is altered.

- The bid is incomplete or incorrectly completed.
- The bid has unauthorized additions, deletions, alternate bids, or conditions.
- A member of a joint venture and the joint venture submit bids for the same project. Both bids may be rejected.
- The bid has entries not typed or in ink, or has signatures or initials not in ink.
- Each erasure, change, or correction is not initialed.
- The price per unit cannot be determined.
- The City finds that it is in the public interest to do so (ORS 279.035).
- The Bid Guaranty is insufficient or improper.
- The standard Bid Bond Form is not used or is altered.
- The Oregon Construction Contractors Board registration number and expiration date are not shown on the bid, if required by the Bid Document. This requirement applies to State-funded projects, with the exception of aggregate production and landscape projects.
- A Disclosure of First-Tier Subcontractors/Material Suppliers, if required under *00120AO(f),* is not received within two (2) working hours of the time bids are due to be submitted, or the Disclosure Form is not complete.
- The Agency determines that any pay item is significantly unbalanced to the potential detriment of the Agency.

00120.95 Opportunity for Cooperative Arrangement – Delete this Section.

END OF SECTION

SECTION 00130 – AWARD AND EXECUTION OF CONTRACT

Comply with Section 00130 of the Standard Specifications, supplemented and/or modified as follows:

00130.00 Consideration of Bids – Delete third paragraph.

00130.10 Award of Contract – Add the following text below the first paragraph of the Subsection:

- 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.

- 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.

00130.15 Right to Protest Award – Delete and replace with the following:

Adversely affected or aggrieved Bidders, limited to the three (3) apparent lowest Bidders, may submit to the City of Sherwood a written protest of the City's Intent to Award within seven (7) 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:

- All lower Bids are non-responsive;
- The Agency failed to conduct the bid process as described in the Bid Document;
- The Agency abused its discretion in rejecting the protestor's bid as non-responsive or non-responsible; or
- The Agency's evaluation of bids or subsequent determination of award was otherwise in violation of ORS Chapter 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 cited above.

00130.30 Contract Booklet - Add the following:

Other documents are part of the Contract Documents by reference. These include, but are not limited to:

- The "Oregon Standard Specifications for Construction," 2015 Edition, as published by the Oregon Department of Transportation (ODOT).
- "Oregon Standard Drawings," latest edition, as published by ODOT.

00130.40 Contract Submittals – Delete the second paragraph of Section (b) and replace with the following:

For this Contract, the Agency may request at any time a certified copy of any insurance policy that this Contract requires and Contractor will provide same at its sole cost within ten (10) days of Agency's request.

Add the following Subsection (e):

(f) State of Oregon Statutory Public Works Bond

As particularly described in 00170.20, when awarded the Contract, the successful Bidder shall furnish a State of Oregon Statutory Public Works Bond.

00130.70 Release of Bid Guaranties – Delete and replace with the following:

Securities deposited by Bidders will be returned after the contract has been duly signed.

00130.80 Project Site Restriction – Replace the paragraph that begins "Until the Agency sends ... " with the following paragraph:

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 go onto the property on which the work is to be done, nor move materials, equipment, or workers onto that property.

END OF SECTION

SECTION 00140 – SCOPE OF WORK

Comply with Section 00140 of the Standard Specifications, supplemented and/or modified as follows:

00140.30 Agency-Required Changes in the Work – Delete and replace the last paragraph with the following:

Upon receipt of an Engineer's Written Order modifying the work, the Contractor shall perform the work as modified.

If an Amendment incorporating changes to the work increases the Contract amount, the Contractor shall notify its Surety of the increase and shall provide the Agency with a copy of any resulting modification to Bond Documents. The Contractor's performance of work pursuant to Amendments shall neither invalidate the Contract nor release the Surety. Payment for changes in the work shall be made in accordance with 00195.20. Contract time adjustments shall be made in accordance with 00180.80.

00140.31 "As-Built" Records – Add the following Section:

Maintain a current and accurate record of the work completed during the course of this contract. This shall be in the form of redline "as-built" drawings kept by accurately marking a designated set of the Contract Plans with the specified information as the work proceeds. Accurate, complete, and current redline "as-built" drawings are a specified requirement for full payment of the work completed. At project Substantial Completion and as a condition of final payment, the Contractor shall deliver to the Engineer a complete and legible set of redlined "as-built" drawings.

The Contractor providing redline "as-built" drawings must 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.

1) Record location of underground services and utilities as installed.
2) Record location of existing underground utilities and services that are to remain and that are encountered during the course of the work.
3) Record changes in dimension, location, grade, or detail to that shown on the plans.
4) Record changes made by Change Order.
5) Record details not in the Original Plans.
6) Provide fully-completed Shop Drawings reflecting all revisions.

00140.40 Differing Site Conditions – Add the following Section:

The Contractor is responsible for site conditions relating to pipe trench and temporary construction slopes (footing excavations) stability. Issues affecting pipe and temporary excavation slope stability shall not be considered Differing Site Conditions.

00140.70 Cost Reduction Proposals – Add the following paragraph:

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.

00140.90 Final Trimming and Cleanup – Add the following bulleted item to the end of the list:

- Removal and clean-up of erosion and sediment controls facilities, once vegetation is established on disturbed areas of the Project Site and the Project Site has been stabilized.

END OF SECTION

SECTION 00150 – CONTROL OF WORK

Comply with Section 00150 of the Standard Specifications, supplemented and/or modified as follows:

00150.00 Authority of the Engineer – Delete and replace the first sentence with the following:

Except as indicated elsewhere in the Contract (e.g. Amendment approval by the City), the Engineer has full authority over the work and its suspension.

00150.05 Cooperative Arrangements – Delete this Section.

00150.10(a) Coordination of Contract Documents: Order of Precedence – Replace the bulleted items with the following:

- Contract Change Orders, supplemental agreements, and approved revisions to Plans and Specifications;
- The signed Agreement between the Agency and the Contractor;
- Public Works Construction Permit;
- Permits from outside Agencies required by law;
- Project-specific Special Provisions;
- City of Sherwood Special Provisions;
- Project Drawings;
- City of Sherwood Engineering Design and Standard Details Manual;
- 2015 Oregon Standard Drawings;
- 2015 Oregon Standard Specifications for Construction; and
- All other Contract Documents not listed above.

00150.15 Construction Stakes, Lines, and Grades – Replace this Subsection with the following:

The Contractor shall establish all field controls for the project and furnish all principal lines, grades, and measurements necessary for the completion of the work.

The Contractor shall inform the Engineer of any property corners, monuments, and/or survey markers found during construction activities that are in conflict with the proposed improvements. The Contractor shall not bury or disturb any property corners, monuments, and/or survey markers.

00150.15 (b) Agency Responsibilities – The Engineer will provide one (1) set of:

- Construction limits stakes (25-foot intervals);
- Grading and erosion control stakes for the following (grade breaks and 25-foot intervals):
    - Clearing limits

    - Channel grades
- Storm drainage structure offset stakes for stream crossing replacement;
- Layout and set construction stakes to establish the lines and grades for access road embankment construction;
- Deduct from payments due the Contractor all costs incurred to replace stakes and markers negligently or intentionally damaged, removed, or destroyed by Contractor.

00150.15(c) Contractor Responsibilities – Add the following bulleted items to the end of this Section:

- Contractor shall provide Engineer at least seventy-two (72) hours of notice for all staking requests;
- Responsible for notifying the Engineer for cancellations prior to the survey crew leaving the office; and
- Responsible for additional expenses due to additional construction stakes or re-staking.

00150.35 (d)(1) Stamped Work Drawings – Replace this Subsection with the following:

Stamped Working Drawings will be designated as "reviewed and accepted" or "reviewed with comments" by the Engineer.

00150.50(c) Contractors Responsibilities – Add the following to the end of Paragraph(c):

- The Contractor will make arrangements for the removal, relocation, or adjustment of utilities and show utility work on the Project Schedule. The Contractor shall be responsible for coordinating, communicating, and scheduling work with the utility companies throughout the entire project. The Contractor shall obtain the available plans for utility relocations within the area from the utility servers.

- The existing underground utilities, shown on the Plans, have been determined by as-built records and field surveys, but are not guaranteed to be complete or accurate. The Contractor shall be responsible for contacting the individual utility companies to mark locations, and arranging with them for any relocation work that should be required.

- The Contractor shall accomplish potholing excavations and borings ahead of the work, where necessary to determine the exact location of underground pipes or other features that might interfere with construction. Potholing shall be accomplished prior to ordering materials and submitting the arch culvert footing design for the project.

- The Contractor shall support and protect pipes or other services where they cross the trench and shall be responsible for all damages incidental in interruptions of service that may be caused by Contractor operations.

- City has shown the known utilities within the project area on the Construction Plans. Contractor shall secure utility locates prior to the start of any construction. Prior to ordering materials for the project, Contractor shall pothole all known utility locations to determine the exact location and depth of all utilities that may conflict with the proposed arch culvert footing design or construction of this project. If Contractor fails to locate any known utility that interferes with the new arch culvert footing, the cost of correcting the conflict shall be borne by Contractor.

- Contractor shall be responsible for prompt notification to the City, Engineer, and appropriate utility agencies of any known utility conflicts. Contractor shall be responsible for the scheduling and coordination of the construction activities necessary to support the resolution of any utility conflicts with the appropriate utility agency. City shall not incur any financial responsibility for any construction delays related to the relocation of any utilities not appropriately located by Contractor.

00150.50(f) Cooperation With Utilities: Utility Information – Add the following Subsection:

00150.50(f) Utility Information

The following organizations may be adjusting utilities within the limits of the project during the period of the Contract:

Type of Utility – Responsible Authority
- Water, Storm, and Sanitary Sewer – City of Sherwood

The Contractor shall be responsible, although Agency will cooperate as necessary, for scheduling and coordinating public utility work.

The Agency assumes no responsibility as to the exact location of utilities and/or omission from the plans. Existing utilities damaged by the Contractor shall be repaired or replaced at Contractor's expense.

The Contractor shall not be entitled to any additional compensation due to the presence of, or interference, delays, or expense caused by, said existing utilities.

00150.95 Final Acceptance – Add the following:

Once construction work is complete, all systems are operable, and final inspection discloses no deficiencies, the following documentation shall be delivered to the City:

- Special Guaranties and Bonds;
- Separate Waivers of Liens for Subcontractor, supplies, and others with lien rights against property of the City;
- Final Pay Estimate;
- Evidence that the Maintenance Bond will remain in effect for two (2) years following the date of Final Acceptance;
- Redlined as-built drawings showing locations of all improvements constructed as part of the project.

00150.96 Maintenance Warranties and Guarantees – Add the following paragraphs:

The Contractor shall provide a 10% Maintenance Bond for a period of two (2) years from the date of Final Acceptance by the Agency. A surety licensed to do business as a surety in the State of Oregon shall provide the Maintenance Bond.

The acceptance by the Contractor of Final Payment shall be and shall operate as a release to the Agency of all claims and all liability to the Contractor, other than claims in stated amounts as may be specifically accepted by the Contractor in writing prior to the request for Final Payment for all things done or furnished in connection with this work. However, any payment, final or otherwise, or any acceptance shall not release the Contractor or its sureties from any obligations under the Contract Documents or the Performance and Payment Bonds or diminish the Agency's rights under the Guaranty Provision.

In addition to and not in lieu of any other warranties required under the Contract to make all necessary repairs and replacements to remedy, in a manner satisfactory to the Engineer and at no cost to the Agency, any and all defects, breaks, or failures of the work occurring during the specified warranty period due to fault or inadequate materials or workmanship. Contractor will repair damage or disturbance to other improvements under, within, or adjacent to the work, whether or not caused by settling, washing, or slipping, when such damage or disturbance is caused, in whole or in part, from activates of the Contractor in performing their duties and obligations under this Contract when such defects or damage occur within the warranty period. The two (2)-year maintenance period required shall, with relation to such required repair, be extended one (1) year from the date of completion of such repair.

If Contractor, after written notice, fails within ten (10) days to proceed to comply with the terms of this section, Agency may have the defects corrected, and Contractor and Contractor's Surety shall be liable for all expenses incurred. In case of an emergency where, in the opinion of the Engineer, delay would cause serious loss or damage,

repairs may be made without notice being given to Contractor and Contractor or Surety shall pay the cost of repairs. Failure of the Engineer to act in case of an emergency shall not relieve Contractor or Surety from liability and payment of all such costs.

END OF SECTION

SECTION 00160 – SOURCE OF MATERIALS

Comply with Section 00160 of the Standard Specifications, supplemented and/or modified as follows:

00160.20 Preferences for Materials – Add, "Federal highway funds are **NOT** involved on this project."

END OF SECTION

SECTION 00165 - QUALITY OF MATERIALS

Comply with Section 00165 of the Standard Specifications.

END OF SECTION

SECTION 00170 – LEGAL RELATIONS AND RESPONSIBILITIES

Comply with Section 00170 of the Standard Specifications, supplemented and/or modified as follows:

00170.70(a) Insurance Coverages – Add the following text:

The following insurance coverages and dollar amounts are required pursuant to this subsection:

Insurance Coverage	Combined Single Limit per Occurrence	Annual Aggregate Limit
Commercial General Liability	$1,000,000.00	$2,000,000.00
Commercial Automobile Liability	$2,000,000.00	$2,000,000.00

00170.70(c) Additional Insured – Add the following text:

Add the following as Additional Insured's under the Contract:

- City of Sherwood and its Councilors, Officers, Agents, and Employees.
- AKS Engineering & Forestry, LLC and its Officers, Agents, Employees, and Subconsultants.

00170.72 Indemnity/Hold Harmless - Add the following paragraph and bullets to the end of this Subsection:

Extend indemnity and hold harmless to the Agency and the following:

- City of Sherwood and its Councilors, Officers, Agents, and Employees.
- AKS Engineering & Forestry, LLC and its Officers, Agents, Employees, and Subconsultants.

00170.85(b)(2) General Warranty for Local Agency Projects – Replace the second paragraph as follows:

The Contractor shall warrant all work and workmanship, including Changed Work, Additional Work, Incidental Work, On-Site Work, and Extra Work, as well as materials and equipment incorporated in the work for two (2) years from the date of Final Acceptance, except that manufacturers' warranties and extended warranties according to 00170.85(c) shall not be abridged.

END OF SECTION

SECTION 00180 – PROSECUTION AND PROGRESS

Comply with Section 00180 of the Standard Specifications, supplemented and/or modified as follows:

00180.21(a) General – Delete the last sentence of the second paragraph and bulleted paragraphs and add the following text:

All contracts with Subcontractors or Suppliers shall have provisions making the contract assignable to the City, at the option of the City, if the Contractor terminates, goes out of business, declares bankruptcy, or otherwise is unable to perform, provided that the City gives the Subcontractor notice of assignment within fourteen (14) days of learning of the inability of the Contractor to perform.

00180.40(a) In General – Add the following to bulleted items:

- Hours of construction are limited to between 7:00 a.m. to 6:00 p.m., Monday through Friday.
- Construction is prohibited on Saturdays, Sundays, or Legal Holidays without prior written approval from the City.
- Work on a Saturday, Sunday, or Legal Holiday will be approved only when it is in the interest of City and must be of such a nature as to provide for, but not limited to, the following:
    - Least inconvenience to the public and
    - Least inconvenience to the Agency's infrastructure.
- The Contractor shall submit a written request to the City for approval of work on a Saturday, Sunday, or Legal Holiday, no less than three (3) working days in advance of the work. The City shall approve or reject the request in writing. No additional contract time will be given if the request is rejected.
- Contractor shall notify in writing and coordinate with adjacent property owners and City prior to commencing work on adjacent owner's property, including work within easements. No work is authorized on adjacent private property not covered with a permanent or temporary easement.
- Construction activities include all field maintenance of equipment, refueling, and pick-up and delivery of equipment and materials, as well as actual construction activities.
- Contractor is solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work, in accordance with generally accepted construction practices. This requirement will apply continuously and not be limited to normal working hours.
- Provide the Agency Project Manager with a twenty-four (24)-hour emergency contact person's name and telephone number.

Add the following Subsection:

00180.40(c) Specific Limitations – Limitations of operations specified in these Revisions to Standard Specifications include, but are not limited to, the following:

Limitations	**Subsection**
Contract Completion Time	00180.50(h)
Noise Control	00290.32

Be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this Subsection.

00180.41 Project Work Schedules – Add the following after the third paragraph:

A Type A schedule is required for this Contract. In addition, a three (3)-week look ahead schedule shall be prepared by the Contractor on a weekly basis and submitted to the Engineer. It shall include all construction activities planned for the following three (3)-week period. The three (3)-week look ahead schedule can be handwritten and shall be in a format agreed upon by the Contractor and the Engineer.

00180.42 Preconstruction Conference – Add the following:

Submit the following during the preconstruction conference unless otherwise directed:

- The name, address, and telephone number of a person employed by the Contractor who can be reached day or night to handle emergency matters.
- Subcontractor's list, including contact list for each subcontractor with phone numbers, addresses, and work to be performed.
- Copy of Contractor and Subcontractor's Metro or City of Sherwood business license.
- List of personnel authorized to sign Change Orders and receive Progress Payment Warrants.
- Traffic Control Plan.
- Bottomless arch culvert, including materials, footing design, and details.
- Shoring, Excavation, and Staging Plan for arch culvert footing excavations.
- In-Water Work Isolation Plan.
- Temporary Stream Diversion Plan (if required).
- Project Work Schedule.

A representative of each first tier subcontractor shall be required to attend the preconstruction conference.

After meeting with the Engineer for the preconstruction conference and after potholing of potential utility conflicts, the Contractor will hold a group utilities scheduling meeting with representatives from the utility companies involved with this Project. The

Contractor will incorporate the utilities time needs into the Contractor's schedule submitted prior to the preconstruction conference.

00180.43 Commencement and Performance of Work – Add the following bullet item:

- Conduct the work at all times in a manner and sequence that will ensure minimal interference with traffic. If it is in the City's best interest to do so, the City may require the Contractor to finish a portion or unit of the project on which work is in progress or to finish a construction operation before work is started on an additional portion or unit of the project.

00180.50(h) Contract Time –

All work under the contract must be completed within ninety (90) calendar days of the Notice to Proceed or by October 14, 2016, whichever is sooner.

Work within wetlands and tributary shall be in accordance to the requirements outlined in the Joint Permit. In-water work is limited to July 15 through September 30, in accordance with Oregon Department of Fish and Wildlife Guidelines.

Due to the in-water work window, the earliest that construction may commence on this project is July 5, 2015.

Recording of the elapse of calendar days will begin on the day the Contractor begins on-site work, as defined in 00110.20

00180.70 Suspension of Work – Add the following to the first bullet item:

If the Engineer has reason to believe that any safety provisions are not being adhered to, the Engineer will immediately notify the Contractor's site foreman and/or the City and Project Manager. The purpose of this discussion is to determine the validity of the alleged violation. This will also allow the Contractor a reasonable amount of time to correct or improve any of the provisions for the safety on this project. If the City and Project Manager find the problem still unresolved or uncorrected, they will notify the Contractor's Project Manager and will take appropriate action, up to and including suspension of the Contractor's operations on all or part of the work.

00180.85(b) Liquidated Damages – Add the following:

The liquidated damages for failure to complete the work on time, as required by 180.50(h), will be **$500.00** per calendar day.*

*Calendar day amounts are applicable when the Contract time is expressed on a calendar day or fixed date basis.

END OF SECTION

SECTION 00190 – MEASUREMENT OF PAY QUANTITIES

Comply with Section 00190 of the Standard Specifications, supplemented and/or modified as follows:

00190.20 Contractor to Provide Vehicle Weigh Scales – Delete and replace Subsection (g) with the following:

If necessary, the Contractor must provide a weigh technician. The Agency will not provide one for the Contractor.

END OF SECTION

SECTION 00195 – PAYMENT

Comply with Section 00195 of the Standard Specifications, supplemented and/or modified as follows:

00195.10 Payment for Changes in Material Costs – Delete and replace with the following:

No asphalt cement price escalation/de-escalations shall be used on this project.

00195.12 Steel Material Price Escalation/De-Escalation Clause – Delete and replace with the following:

No steel material price escalation/de-escalations shall be used on this project. There is no option for Contractor participation.

00195.20(a) Insignificant Changed Work – Add the following to the end of the first paragraph:

Total value of changes made under 00140.30 amounting to less than 30% of the original Contract Amount shall be considered as Insignificant Changed Work and shall not change unit costs of the work.

00195.50 Progress Payments and Retained Amounts – Modify as follows:

00195.50(a) Progress Payments – Modify as follows:

(1) Progress Estimates – Delete the first sentence and replace with the following:

At a regular period each month to be determined at the Preconstruction Conference, the Contractor will make an estimate of the amount and value of pay item work completed and in-place. This estimate will be submitted to the Project Manager for approval.

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.

(2) Value of Materials on Hand – Delete the Section and replace with the following:

The Contractor will make an estimate of the amount and value of acceptable material to be incorporated into the completed work that has been delivered and stored, as given in 00195.60(a).

(4) Limitations on Value of Work Accomplished – In the first sentence, change "Engineer's estimate" to "Contractor's estimate."

00195.90 Final Payment – Add the following Subsections:

(d) The Contractor shall maintain a current and accurate record of the work completed during the course of this Contract, through the maintenance of as-built drawings. These as-built 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 full or partial payment of the work completed. At project completion and as a condition of Final Payment, the Contractor shall deliver an acceptably complete and legible full-size set of as-built drawings to the Agency.

The as-built drawings provided by the Contractor must show the information listed below. Where the term "locate" or "location" is used, it means a record of position with respect to both the construction vertical datum and either horizontal datum or a nearby permanent improvement.

- Record location of underground services and utilities as installed.
- Record location of existing underground utilities and services that are to remain and that were encountered during the course of the work.
- Record changes in dimensions, location, grade, or detail to that shown on the Plans.
- Record changes made by Change Order.
- Record details not in the original Plans.
- Provide fully-completed Shop Drawings reflecting all revisions.

(e) Notwithstanding any contrary language in the Contract Documents, Contractor's acceptance of the Final Payment will release the Agency and the Engineer from all claims and all liability to the Contractor for all things done or furnished in connection with the work, and every act of the Agency and others relating to or arising out of the work. The Contractor's acceptance of Final Payment is conclusive proof of Agency's full performance under the Contract. If Agency requests, Contractor will sign a release stating Contractor has been paid in full prior to the Final Payment. No payment, final or otherwise, will operate to release the Contractor or the Contractor's sureties from obligations under the Contract and will not affect the continuing validity and enforceability of the performance, payment, and other bonds and warranties provided pursuant to the Contract.

END OF SECTION

SECTION 00196 – PAYMENT FOR EXTRA WORK

Comply with Section 00196 of the Standard Specifications.

END OF SECTION

SECTION 00197 – PAYMENT FOR FORCE ACCOUNT WORK

Comply with Section 00197 of the Standard Specifications.

END OF SECTION

SECTION 00199 – DISAGREEMENTS, PROTESTS, AND CLAIMS

Comply with Section 00199 of the Standard Specifications, supplemented and/or modified as follows:

00199.20 Protest Procedure – Add the following text to the following Subsection:

(b) Written Notice – The Engineer has no responsibility to evaluate the protest unless the Contractor has timely filed a proper notice submitting all of the above information. Failure to comply with this notice requirement renders the notice improper and shall constitute a waiver of any claim for additional compensation for any part of the protested work.

00199.20(g) Protest Evaluation by Third Party Neutral – Delete this Subsection.

00199.30 Claims Procedure – Add this Subsection:

(e) Payment of Costs, Expenses, and Attorney's Fees – Each party is responsible for its own costs, expenses, and attorney's fees in the event of litigation.

00199.40(b) Step 1: Region Level Review – Add the following text to this Subsection:

For the purposes of this Contract, the "regional-level reviewer" is Agency's Public Works Director.

00199.40(c) Step 2: Agency Level Review – Replace Paragraphs 1 and 4 with the following:

The Contractor shall request a meeting with the Contract Administration Engineer to present the claim for final Agency review. For the purposes of this Contract, the "Contract Administration Engineer" is the Agency's City Manager. The presentation will take place within twenty-one (21) calendar days of the Agency's receipt of the Contractor's written request, or as otherwise agreed by the parties.

If the Contractor does not accept the Step 2 decision, the Contractor may, within ten (10) calendar days of receipt of the written decision, request in writing through the Engineer that the claim be advanced to Step 3.

00199.40(d) Step 3: Arbitration; Claims Review Board – Delete this Subsection and replace with the following:

00199.40(d) Step 3: Litigation –

This step applies to any claim that is not resolved under Steps 1 or 2.

The Contractor must follow Steps 1 and 2, in order, and exhaust all available administrative remedies before resorting to litigation. The Contractor must properly file a lawsuit in a court of competent jurisdiction within six (6) months from the date of the Final Decision that exhausted the Contractor's administrative remedies under this Contract.

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

The Contract, or any of its provisions, will not be construed against either party, regardless of who drafted it. Other than as may be modified by the Contract, the applicable rules of contract construction and evidence will apply. The Contract will be governed by and construed in accordance with Oregon law without regard to conflict of laws principles.

Any dispute between the Agency and the Contractor that arises from or relates to the Contract and that is not resolved under Section 00199 may only be brought and must be conducted solely and exclusively in the Circuit Court for the State of Oregon, Washington County. If a dispute must be brought in a federal forum, then it may only be brought and conducted solely and exclusively in the United States District Court for the State of Oregon. To the maximum extent permitted by law, the dispute will be tried to a court without a jury and will not be subject to mandatory arbitration. In no event will this Subsection be construed as a waiver by the Agency of any form of defense or immunity, whether sovereign immunity, governmental immunity, or immunity based on the Eleventh Amendment to the United States Constitution, from any claim or from the jurisdiction of any court. The Contractor consents to the personal jurisdiction of the courts referenced herein.

In any dispute between the Agency and the Contractor that arises from or relates to the Contract, each party is solely responsible for its own costs and fees, including attorney fees.

00199.40(e) Step 4: Litigation – Delete this Subsection in its entirety.

00199.55 Expenses, Costs and Attorney Fees – Add this Subsection.

Notwithstanding any contrary language in the Contract Documents, each party will solely bear its own expenses, costs, and fees, including attorney fees, throughout prosecution of the work and including any disagreements, protests, or claims, including all trials and appeals.

END OF SECTION

SECTION 00210 – MOBILIZATION

Comply with Section 00210 of the Standard Specifications, supplemented and/or modified as follows:

00210.40 Mobilization – Add the following bullet to the end of the bulleted list:

- General utility locating and potholing

END OF SECTION

SECTION 00220 – ACCOMODATIONS FOR PUBLIC TRAFFIC

Comply with Section 00220 of the Standard Specifications, supplemented and/or modified as follows:

00220.02 Public Safety and Mobility – Add the following bullet to the end of the bulleted list:

- Contractor shall keep pedestrian trail west of the project work area open at all times. When using the pedestrian trail for project access, the Contractor shall ensure the safety of pedestrians. Additional traffic control measures may be necessary to ensure pedestrian safety and could potentially include a flagger. Any additional traffic control measures deemed necessary by the City shall be provided by the Contractor and included in the bid item "Temporary Work Zone Traffic Control, Complete".

END OF SECTION

SECTION 00225 - WORK ZONE TRAFFIC CONTROL

Comply with Section 00225 of the Standard Specifications supplemented and/or modified as follows:

00225.05 Contractor Traffic Control Plan – Add the following text to this subsection as follows:

If at any time during the work the Engineer determines the Traffic Control Plan to be inadequate, the Contractor shall provide a revised Traffic Control Plan and install the additional signs and devices at no additional cost to the Owner.

Add the following subsection:

00225.11(a)(5) Light-Weight Sign Substrate - Use light-weight sign substrates from the QPL.

00225.90 Payment - Delete and replace with the following:

Method "B" – Lump Sum Basis shall be used for payment of work in this section.

END OF SECTION

SECTION 00240 – TEMPORARY DRAINAGE FACILITIES

Comply with Section 00240 of the Standard Specifications, supplemented and/or modified as follows:

00240.40 Construction – Add the following paragraphs as follows:

An in-water work isolation and temporary stream diversion plan (or bypass system) is required to isolate the work area from the existing creek and adjacent wetlands and to maintain flows to the existing unnamed Cedar Creek tributary.

Minor flow may be present within the channel for the creek during the in-water work window. If the Contractor determines that temporary stream diversion is required, an in-stream work isolation plan shall be prepared by the Contractor in accordance with any requirements provided during the permit process by the National Marine Fisheries Service (NMFS) and ODFW.

The following outlines minimum requirements for the in-water work isolation and bypass plan:

- The work isolation area and temporary drainage bypass facility for the project shall wholly be located within the disturbance limits identified on the project plans.
- The work area within the tributary creek can be isolated using coffer dams (made out of gravel or sand bags, jersey barriers, water bladders, etc.) or a similar structure placed at the upstream and downstream end of the work area to minimize the potential for sediment entrainment.
- If possible, a gravity-fed bypass pipe shall be installed upstream of the work isolation area to bypass flow around the work area. The temporary bypass facility for the in-water work area should be designed to hard-pipe the existing channel and convey any existing creek flows past the work isolation for the arch culvert construction.

  The temporary bypass system shall be capable of conveying the following flows past the work area:

  5.2 CFS (water quality storm event)

  The bypass pipe shall discharge immediately downstream of the project area, to maintain downstream flow and connectivity for any fish or organisms needing to move downstream.
- If necessary, a water-intake pump may be required to dewater the work area. If a water intake pump is used, a fish screen in accordance with NMFS' fish screen criteria shall be required and installed on the pipe.
- Native Pacific lamprey may be present in the channel. Therefore, prior to and during the pumping, attempts will be made to seine and release any native fish from the work isolation area to minimize risk of injury. Seining will be conducted under the supervision of a Fishery Biologist or by ODFW.

- Water pumped out of the work isolation area will be discharged into the adjacent upland, in a location far enough to provide overland flow prior to returning to the tributary. The adjacent upland area will act as a sediment basin, used to settle sediments prior to release back into the tributary. Discharge will occur in such a manner as to not cause erosion.
- When construction is complete, the construction area is to be rewatered slowly, to prevent a sudden increase in stream turbidity.

The Contractor (and its Subcontractors) should be aware that creek flows exceeding the capacity of the temporary bypass system will result in temporary flooding of the work area.

The Contractor is required to submit the proposed work isolation and temporary creek diversion design/plan to the City and Project Engineer for approval. Written approval from the City shall be obtained prior to demolition or earthwork activities associated with the installation of the temporary creek diversion. Temporary creek diversion systems are required to be in place and operational prior to beginning work within the in-water work area.

00240.90 Payment – Delete and replace with the following:

All temporary drainage facilities shall be completed on a lump sum basis under the following pay items:

Pay Item	**Unit of Measurement**
(a) Work Isolation & Temporary Creek Diversion	Lump Sum

Payment will be paid in full for furnishing, placing, maintaining, and removing temporary drainage facilities, as well as for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for:

- Removal and disposing of water within the work area.
- Restoration and reconstruction of work isolation structures due to creek flows that exceed the capacity of the temporary diversion system.
- Removing and reinstalling of creek diversion structures and pipes as required for construction.
- Constructing and removing work isolation structures at the conclusion of construction.

END OF SECTION

SECTION 00280 – EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications, supplemented and/or modified as follows:

00280.04 Erosion and Sediment Control Plan on Agency Controlled Lands – Delete the entire Section and replace with the following:

The Contractor shall adhere to and follow the Agency's ESCP as shown in the Project Plans.

00280.05 Erosion and Sediment Control Plan on Non-Agency Controlled Lands – Delete this section:

00280.15 (c) Temporary Drainage Curbs – Delete the entire Section.

00280.15 (d) Temporary Slope Drains – Delete the entire Section.

00280.15 (e) Flow Spreader – Delete the entire Section.

00280.16 (b) Tire Wash Facility – Delete the entire Section.

00280.16 (d) Inlet Protection – Delete the entire Section.

00280.40 Installation – Replace the first paragraph with the following:

The Contractor shall install erosion and sediment control BMP as shown in and according to the most current edition of the *City of Sherwood Engineering Design and Standard Details Manual*. These BMP will be installed before clearing, grading, or other land alteration activities are performed. The Contractor shall ensure that no visible and measurable sediment or pollutants leave the project boundaries, enter drainage systems or waterways, or violate applicable water standards.

For the purposes of this requirement, "visible and measurable" is defined as:

- Deposits or tracking of mud, dirt, sediment, or similar materials exceeding one-half (½) cubic foot in volume on any private or public street, pedestrian trail to the west, or adjacent property, or into any storm or surface water drainage system, either by direct deposit, dropping or discharged, or as a result of erosion; or
- Evidence of concentrated flows or water over bare soils, turbid or sediment-laden flows, or evidence of on-site erosion, such as rivulets on bare slopes where the flow of water is not filtered or captured on the site; or
- Earth slides, mudflows, earth sloughing, or other earth movement off the project site.

00280.45 (c) Temporary Drainage Curbs – Delete the entire Section.

00280.45 (d) Temporary Slope Drains – Delete the entire Section.

00280.45 (e) Flow Spreader – Delete the entire Section.

00280.70 Removal – Replace the first sentence of the paragraph with the following:

Within thirty (30) days of the notification of acceptance of permanent stabilization, the Contractor will remove temporary erosion and sediment control devices, materials, and erosion control signing from the area. Any disturbance from this removal shall be permanently stabilized with seed and mulch.

00280.90 Payment – Replace with the following:

The accepted quantities of work performed by the Contractor under this section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Erosion Control	Lump Sum
b) Sediment Fence	Foot
c) Mulching	Square Yard
d) Gravel Construction Entrance	Each
e) Slope Protection Matting – EconoJute	Square Yard

Item (a) includes

All items not listed in (b) through (e) are required to provide erosion and sediment control throughout the project duration, including changes to the erosion and sediment control facilities that may be necessary, but not indicated in, the ESCP.

- Providing the Erosion and Sediment Control Manager
- Revising and documenting the ESCP
- Mobilization
- Monitoring activities
- Furnishing, stockpiling, protecting, restocking, and removing emergency materials
- Preparing project for winter shut-down
- Inspecting, maintaining, and removing erosion control devices
- Restoring, mulching, tacking, and seeding all disturbed ground, work, and storage areas not otherwise covered

Payment will be paid in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for:

- Removing and disposing of sediment build-up behind sediment fences and sediment barriers
- Removing and reinstalling required appurtenances to modify temporary slope drains as the embankment slopes are changed
- Constructing and removing temporary slope berms
- Applying dust control
- Erosion control for work outside the construction limits, including, but not limited to, borrow pits, haul roads, disposal sites, and equipment storage sites

END OF SECTION

SECTION 00290 – ENVIRONMENTAL PROTECTION

Comply with Section 00290 of the Standard Specifications, supplemented and/or modified as follows:

00290.10 Staging and Disposal Sites – Add the following paragraph:

Any aggregate/soils contaminated by the Contractor within the staging area or on the project site shall be removed and replaced by the Contractor at no additional cost.

00290.20(c)(3)d. Concrete and Masonry – Replace the paragraph that begins "Concrete and masonry..." with the following paragraph:

Concrete, masonry, and asphalt debris is to be removed from the site and properly disposed of.

00290.30(a) Pollution Control Measures – Add the following Subsection and bullets:

(7) Water Quality:

- Do not discharge contaminated or sediment-laden water, including drilling fluids and waste, dewatered trench, or water contained within a work area isolation, directly into any waters of the State or U.S., or municipal collection and conveyance systems until it has been satisfactorily treated (for example by bioswale, filter, settlement pond, pumping to vegetated upland location, bio-bags, dirt-bags). Treatment shall meet the turbidity requirements below.
- Do not cause turbidity in waters of the State or U.S. greater than ten percent (10%) above background reading (up to one hundred (100) feet upstream of the project), as measured one hundred (100) feet downstream of the project.
- During construction, monitor and inspect all erosion controls daily during the rainy season and weekly during the dry season, or more often as necessary, to ensure the erosion controls are working adequately and meeting treatment requirements.
- If construction discharge water is released using an outfall or diffuser port, do not exceed velocities more than four (4) feet per second, and do not exceed an aperture size of one (1) inch.
- If monitoring or inspection shows that the erosion and sediment controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.
- Implement containment measures adequate to prevent pollutants or construction and demolition materials, such as waste spoils, fuel or petroleum products, concrete cured less than 24 hours, concrete cure water, silt, welding slag and grindings, concrete saw cutting by-products, and sandblasting abrasives, from entering waters of the State or U.S., or municipal collection and conveyance systems.

- End-dumping of riprap within the waters of the State or U.S. is not allowed. Place riprap from above the bank line.
- Cease project operations under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage.
- The Project Manager retains the authority to temporarily halt or modify the project in the case of excessive turbidity or damage to natural resources.

00290.34(b) Prohibited Operations – Add the following bulleted item to the end of this Subsection.

- Allow equipment to enter or work in the waters of the State or U.S.

00290.41 Protection of Wetlands – Add the following:

Comply with the conditions of the Clean Water Service's (CWS) Service Provider Letter (SPL) and USACE/ODSL Removal/Fill Permits obtained for this project.

00290.90 Payment – Delete and replace with the following:

No payment will be made for work performed under this Section, as it is considered incidental to other bid items.

END OF SECTION

SECTION 00310 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Comply with Section 00310 of the Standard Specifications, supplemented and/or modified as follows:

00310.91 Lump Sum Basis – Add the following pay item:

Pay Item	Unit of Measurement
c) Removal of Storm Culvert	Lump Sum
d) Removal of Existing Fence	Lump Sum

00310.92 Separate Item Basis – Add the following pay item:

Pay Item	Unit of Measurement
g) Removal of AC Path	Sq. Ft.

No separate or additional payment will be made for:

- Saw cutting
- Pipe disposal
- Concrete, AC & fence disposal

END OF SECTION

SECTION 00320 – CLEARING AND GRUBBING

Comply with Section 00320 of the Standard Specifications, supplemented and/or modified as follows:

00320.42 Disposal of Matter – Replace this Subsection with the following Subsection:

Dispose of all matter and debris according to 00290.20, except for selected topsoil material, which may be temporarily stockpiled on site and used as topsoil where specified. Excess topsoil materials shall be off-hauled and disposed off site.

00320.80 Measurement – Delete and replace with the following:

No measurement will be made for clearing and grubbing. No measurement will be made for stripping, stockpiling, redistribution of topsoil materials, and off-haul of excess materials.

The Contractor shall complete their own earthwork calculations to confirm the required quantities.

00320.90 Payment – Delete and replace with the following:

The accepted quantities of work under this Section will be paid for at the Lump Sum Amount for the following items:

Pay Item	Unit of Measurement
a) Stripping	Lump Sum

Payment will be paid in full for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Item (a) includes the following:

- Vegetation and tree removal
- Clearing
- Grubbing
- Root picking (if required)
- Strippings (topsoil) excavation, stockpiling, redistribution, and off-haul

When the Contract Bid Schedule of Prices does not indicate payment for work performed under this Section, no separate or additional payment will be made. Payment will be included in payment made for the appropriate items under which this work is required.

END OF SECTION

SECTION 00330 – EARTHWORK

Comply with Section 00330 of the Standard Specifications, supplemented and/or modified as follows:

00330.40 General: Add the following:

(d) Staged Inspections – Notify Project Geotechnical Engineer and City Agent a minimum of forty-eight (48) hours prior to all staged inspections. Staged inspections shall be required for exposed stripped surfaces and exposed foundation subgrade prior to placement of engineered fill, base rock, or foundations, and prior to channel material fill placement).

00330.41(a)(5) Waste Materials – Replace this Subsection with the following:

Unless otherwise specifically allowed and subject to the requirements of 00280.04, dispose of materials classified as waste materials in 00330.41 (a-3) and 00330.41 (a-4) outside and beyond the limits of the project and Agency-controlled property, according to 00290.20. Do not dispose of materials in wetlands, either public or private, or within three hundred (300) feet of rivers or streams.

00330.42(c)(3) Embankment Slope Protection – Add the following paragraph:

Construct the outer six (6) 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 that conforms to the requirements of 00330.11 or 00330.13 and provides favorable conditions for germination of seed and growth of grass.

00330.42(c)(8) Engineered Fills – Delete Section and replace with the following:

Engineered Fill – Foundations – In areas designated on the Plans as "Engineered Fills," place dense-graded aggregate materials per Section 02630.10 in maximum eight (12)-inch lifts from the foundation subgrade over excavation per the Project Plans and the Geotechnical Report. Compact to ninety-five percent (95%) maximum density according to 00330.43(b).

00330.43(b) Moisture-Density Testable Materials – Delete Sections (1) and (2b) and replace with the following:

(1) Test in-place materials for compaction according to AASHTO T-99.

(b) Density -- After compaction of each layer the density shall be at least:

- Ninety-five percent (95%) of maximum density per AASHTO T-99 (Standard Proctor).

00330.80 Measurement - Replace with the following:

There will be no measurement of quantities for general earthwork. The Contractor shall complete their own earthwork calculations to confirm the required quantities.

Engineered fills will be measured based on an in-place volume unit (bank cubic yards), based on and limited to the established neat lines and grades, as shown on the Project Plans.

If changes to the Project Plans are required, the changes to earthwork will be measured in-place in volume units (cubic yards) and identified as separate bid alternates for excavation, embankment, and off-haul. In-place volumes (bank cubic yards) for changes or additions to the earthwork volumes will be determined by the Engineer.

00330.81 Excavation Basis Measurement – Delete this Section.

00330.82 Embankment Basis Measurement – Delete this Section.

00330.90 Payment– Replace with the following:

All earthwork, including all excavation and embankment as defined under Sections 00330 and 00405.41, shall be completed on a lump sum basis under the following pay item:

Pay Item	**Unit of Measurement**
a) Earthwork – Excavation, Embankment, & Off-Haul	Lump Sum
b) Engineered Fills	Bank Cubic Yards
c) Additional Excavation	Bank Cubic Yards
d) Additional Embankment	Bank Cubic Yards
e) Additional Off Haul	Bank Cubic Yards

Item (a) will be payment in full for excavation, selecting, handling, hauling, placing, compacting, stockpiling, and off-haul of excess materials, as specified on the Project Plans, and all other costs in furnishing required embankment materials. No separate or additional payment will be made for water used to moisten materials for proper compaction and in the care of the work.

Items c, d, and e will be payment for additional excavation, embankment, and off-haul added to the project at the direction of the City or Engineer.

00330.91 Kinds of Pay Excavation – Delete this Section.

00330.93 Excavation Basis Payment – Delete this Section.

00330.94 Embankment Basis Payment – Delete this Section.

END OF SECTION

SECTION 00340 – WATERING

Comply with Section 00340 of the Standard Specifications, supplemented and/or modified as follows:

00340.40(a) General – Add the following after the first paragraph of the Subsection:

The Contractor shall not request the use of or obtain water from any residential, commercial, or industrial property owners or tenants. The Contractor will contact and coordinate with the City of Sherwood for hydrant meter.

If in the opinion of the Engineer or the City dust control watering is necessary, the Contractor shall respond to such request within one (1) hour or pay the Agency a fine of $250.00 per occurrence. The Contractor shall furnish the Engineer the name(s) and telephone number(s) of the qualified person(s) available to perform dust control watering.

00340.80 Measurement – Replace with the following:

There will be no measurement of quantities for watering under this contract.

00340.90 Payment – Replace with the following:

There will be no payment for watering under this contract. Watering is considered incidental to other pay items. No separate payment will be made for fees associated with hydrant meter.

END OF SECTION

SECTION 00350 – GEOSYNTHETIC INSTALLATION

Comply with Section 00350 of the Standard Specifications, supplemented and/or modified as follows:

00350.10 Materials – Add the following to the end of this Subsection:

Provide manufacturer's certifications complying with 02320.10(c) for the following geosynthetic(s):

	Geotextile Property Requirements	
Geotextile	**Type 1**	**Type 2**
Subgrade		X
Riprap		X

00350.80 Measurement – Delete and replace with the following:

There will be no measurement of quantities for subgrade or riprap geotextiles under this contract.

00350.90 Payment – Delete and replace with the following:

There will be no payment for geosynthetics under this contract. Subgrade and riprap geotextile fabrics are considered incidental to other pay items.

END OF SECTION

SECTION 00370 – FINISHING ROADBEDS

Comply with Section 00370 of the Standard Specifications, supplemented and/or modified as follows:

00370.80 Measurement – Replace with the following:

No measurement will be made for work performed under this section.

00370.90 Payment – Replace with the following:

No additional payment will be made for finishing roadbeds. This item is considered incidental to Section 00330.

END OF SECTION

SECTION 00390 – RIPRAP PROTECTION

Comply with Section 00390 of the Standard Specifications, supplemented and/or modified as follows:

00390.41 Riprap Geotextile – Replace with the following:

Install a Type 2 riprap geotextile according to the requirements of Section 00350 and Section 02320 and as shown or directed.

00390.80 Measurement – Replace with the following:

Measurement of quantities of riprap protection will be made on an area basis.

00390.90 Payment – Replace with the following:

The accepted quantities of work performed under this Section will be paid at the Contract unit price, per unit of measurement, for the following items:

	Pay Item	Unit of Measurement
(a)	Riprap Protection, Class 200	Cubic Yard

Riprap geotextile (Type 2) is incidental to riprap protection and will not be paid for separately.

Payment will be paid in full for furnishing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

END OF SECTION

SECTION 00442 – CONTROLLED LOW STRENGTH MATERIALS (CLSM)

Comply with Section 00442 of the Standard Specifications, supplemented and/or modified as follows:

00442.90 Payment– Replace with the following:

Pay Item	Unit of Measurement
a) Additional CLSM	Cubic Yards

Item a will be payment for additional CLSM placement and backfill around the existing sanitary sewer pipe which is required at the direction of the City or Engineer.

END OF SECTION

SECTION 00450 – STRUCTURAL PLATE SHAPED STRUCTURES

Replace Section 00450 of the Standard Specifications with the following:

00450.00 Scope – This Specification covers the design, manufacture, and installation of the Multi-Plate Single Radius Arch Culvert detailed in the Project Plans. Design and construction of Multi-Plate Single Radius Arch Culvert shall include designs and details to accommodate a notched and/or modified foundation for section of footing that is "interrupted" by an existing sanitary sewer main, as shown on the Project Plans.

For geotechnical design criteria and subgrade preparation, see the Geotechnical Report included in the Bid Documents.

00450.01 Definitions:

Multi-Plate Arch Culvert – Single-radius structure comprising a number of curved metal plates that form an arch shape when assembled. The structure is designed to be supported along its lower edges on a separately constructed reinforced concrete foundation, which is designed and constructed to support the selected type, thickness, and span identified on the Plans. This size is designated by span and rise, measured from the inside crests of corrugations.

00450.02 Qualified Suppliers – Each Bidder is required to identify their intended Bridge Supplier as part of the Bid Submittal. The selected Bridge Supplier will meet the following criteria:

1) Qualified Suppliers must have at least fifteen (15) years of experience fabricating equal or larger type structures.
2) Pre-Approved Manufacturer:

   Contech Engineered Solutions LLC
   700 Tech Drive
   Winchester, KY 40391

3) Suppliers other than those listed above may be used provided the City or Engineer evaluates the proposed Supplier and approves the supplier fourteen (14) business days prior to bid.
4) The Contractor must provide the following documentation for any proposed Supplier who is not pre-approved at least fourteen (14) business days prior to bid:
   a) Product literature.
   b) Documentation to ensure substitution will be in compliance with specifications.
   c) Project-specific representative drawings for bridge projects listed above, with materials, complete design calculations, and design specification references.

5) Proposed Suppliers must have at least fifteen (15) years of experience designing similar structures and a minimum of fifteen (15) successful projects of similar shape and construction as specified in these specifications and drawings, with each completed structure having been in service for at least three (3) years. List the location, shape, size, owner, and a contact for reference for each project.
6) The Owner's Agent will evaluate and verify the accuracy of the submittal prior to bid. If the Owner's Agent determines that the qualifying criteria have not been met, the Contractor's proposed Supplier shall be rejected. This ruling shall be final.

00450.05 Required Submittals – The Contractor shall submit Shop Drawings and product data to the Project Engineer for review prior to fabrication of the Multi-Plate Single Radius Arch Culvert.

1) Shop Drawings shall include the general layout of the structure, footing plan, elevation and cross section, and fabrication details for all assemblies, including notched or modified footing details due to existing sanitary sewer main.
2) Shop Drawings shall include all pertinent dimensions, drilled holes, fasteners, cambers, connectors, and types of preservative treatment.
3) Shop Drawings shall be stamped by a registered Professional Engineer (PE) licensed to practice in the state of Oregon.
4) The Contractor shall submit design calculations stamped by a registered Professional Engineer (PE) licensed to practice in the State of Oregon.

00450.10 Materials – The Contractor shall furnish materials meeting the following requirements:

Commercial Grade Concrete 00440
Reinforcement 00530
Structural Concrete.....00540
Aluminum Alloy Structural Plates.....02430.20
Bolts, Nuts, and Washers 02430.90

00450.20 Multi-Plate Dimensions – The proposed replacement culvert structure shall be a Multi-Plate Single Radius Arch Culvert with the following dimensions.

Span: Fifteen feet zero inches (15' 0")

Rise: Six feet seven inches (6' 7")

Gage (Thickness): Plate thickness shall be 0.125" for all plates or as described.

Corrugations: The aluminum structural plate shall have six (6)-inch by two (2)-inch annular corrugations. The corrugation profile shall have AASHTO recognition for a minimum of fifteen (15) years.

The rise and span dimension shall be determined at the inside corrugations. All dimensions on the Plans shall be measured in a true horizontal plane, unless otherwise noted.

00450.25 Design Requirements –

(a) Multi-Plate Single Radius Arch Culvert designs shall comply with Sections 12 and 26 of the American Association of State Highway and Transportation Officials (AASHTO) *LRFD Bridge Design Specifications* or *Standard Specifications for Highway Bridges,* latest edition. When using the Strength Design Method (Load Factor Design) or Load and Resistance Factor Design, the strength reduction factor, ¢, used in the design of the concrete arch shall comply with AASHTO specifications for compression members.

(b) Buried multi-plate arch culverts shall be designed and sealed by an Oregon Professional Structural or Civil Engineer.

(c) The minimum design vehicle load shall be the HS20 axle loading. The structure shall be designed to resist the maximum stresses resulting from all applicable AASHTO load groups and load combinations.

(d) Foundations shall be designed for allowable soil bearing pressures identified in the Geotechnical Evaluation report (dated July 22, 2015) by Hardman Geotechnical Services, Inc.

00450.42 Erection –

(a) General – Assemble corrugated metal plates at the site of installation to the lines and grades shown or directed. Connect the plates at longitudinal and circumferential seams with bolts. Stagger joints so that no more than three plates come together at any one point. Each plate shall be curved to one or more circular arcs as required, and according to 02430.10, to provide an assembled structure of specified dimensions and design.

Retain any camber specified for the invert when assembling and erecting the structures. Do not create an adverse grade in the structure.

(a) Plate Thickness – The thickness of the respective top, corner, and bottom plates in any one structure shall be 0.125".

(b) Bolts – Use at least four (4) bolts per foot of longitudinal seam. Space bolts and holes according to AASHTO M167. Use additional bolts for special conditions of installation, if called for in the Special Provisions or by the Plans. Unless otherwise allowed, place all bolts with nuts on the inside of the structure.

(c) Assembly – Assemble structural plate structures according to the manufacturer's assembly instructions and the following:

- Hold the unsupported edges of all plates in position by temporary props.
- Extend each row of side plates far enough to support the plate above until the first complete ring has been assembled.
- Progressively install enough bolts to hold the plates in position. Do not tighten bolts until tightening will not interfere with adjusting and matching of additional plates and sections.
- Do not damage the galvanizing or other protective coating when using drift pins or pry bars.
- Repair any damage at no additional cost to the Agency.
- After all plates are in place, progressively and uniformly tighten the bolts from one end of the structure to the other end of the structure.
- Tighten bolts to at least one hundred (100) foot pounds of torque for plates zero point one eight eight (0.188)-inch thick or less, and one hundred and fifty (150) foot pounds of torque for plates more than zero point one eight eight (0.188)-inch thick.
- Recheck and retighten as necessary before backfilling.
- Do not torque bolts above three hundred (300) foot pounds during tightening.

00450.80 Measurement – No measurement of quantities will be made for the design-build of the Multi-Plate Single Radius Arch Culvert.

Commercial-grade concrete and steel reinforcement for footings will not be measured and is considered incidental to the design and installation of the Multi-Plate Single Radius Arch Culvert.

Excavation and backfill for the Multi-Plate Single Radius Arch Culvert will be measured according to Section 00510.

00450.90 Payment – The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	**Unit of Measurement**
a) 39-foot min. x 15-foot x 6-foot 7-inch Multi-Plate Arch Culvert	Lump Sum

The 39-foot length is the minimum length of culvert. Due to culvert section sizing, it may be necessary to install a culvert longer. If so, then the culvert shall be installed longer than the 39 feet to the next full culvert section. This additional length of culvert and the associated concrete foundation beyond the 39 feet will be included in the Lump Sum price. There will be no additional payment for extra length.

Payment will be made in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified. The concrete foundations and associated structural rebar reinforcement are also considered incidental to the Multi-Plate Single Radius Arch Culvert.

Excavation and backfill for the multi-plate arch culvert will be paid for according to Section 00510.

No separate or additional payment will be made for:

- Reinforced concrete foundations
- Structural reinforcement for concrete foundations
- Foundation excavations (included in structure excavations)
- Additional length of culvert and reinforced concrete foundations beyond 39 feet of length.

END OF SECTION

SECTION 00510 – STRUCTURE EXCAVATION AND BACKFILL

Comply with Section 00510 of the Standard Specifications, supplemented and/or modified as follows:

00510.01 Lines, Grades, and Cross Sections – Replace this Subsection with the following:

Perform the work to the lines, grades, and cross sections shown on the Project Plans.

00510.03 Cofferdam Plans, Calculations, and Construction Inspection – Delete Subsection and replace with the following:

00510.03 Temporary Work Isolation Plan, Calculations, and Construction Inspection – Submit work isolation plan and stream diversion plan in accordance to Section 00240.

00510.41 Structure Excavation –

Delete 2nd bulleted item that begins with: "Placement of all backfill...."

Add additional bulleted item under "Structure excavation includes:

- Foundation excavations required to excavate and place eighteen-inch (18") thick layer of dense graded aggregates for foundations support, per Geotechnical Engineer recommendations.

00510.48(d) Reinforced Concrete Box Culverts, Structural Plate Structures and Pipe Culverts Over 72 Inches in Diameter – Delete and replace this subsection with the following:

00510.48(d) Structure Backfill – Backfill the structural plate arch culvert as follows:

Use backfill materials conforming to 00510.10 unless otherwise specified. Place and compact in lifts not greater than 12 inches thick and in a manner that equalizes pressure on the structure and minimizes stress. Before placing backfill material, condition, aerate, or wet the material so that the moisture content of each layer is within minus 4 percent to plus 2 percent of optimum moisture content.

Compact the top 3 feet of stucture backfill material within the roadway and shoulders, and within a 2V:1H slope line projected from each subgrade shoulder, to not less than 95 percent of maximum density of AASHTO T-99 test method.

Compact with hand methods to ensure intimate contact between the backfill material and the pipe or structure. Provide thorough compaction. Ponding or jetting of backfill materials will not be allowed for this project.

00510.80 Measurement – Delete and replace with the following:

The quantities of work performed under this Section will be measured according to the following:

(a) Structure Excavation – Structure excavation will be not be measured.
(b) Structure Backfill – Structure backfill will not be measured.

00510.90 Payment – Delete and replace with the following:

The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Structure Excavations	Lump Sum
b) Structure Backfill	Lump Sum

Payment will be made in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for:

- Placement, backfill, and compaction of selected general backfill
- Foundation excavations (included in structure excavations)
- Extra work or materials due to culvert exceeding the 39-foot length.

END OF SECTION

SECTION 00530 – STEEL REINFORCEMENT FOR CONCRETE

Comply with Section 00530 of the Standard Specifications, supplemented and/or modified as follows:

00530.80 Measurement – Delete and replace with the following:

No measurement of quantities will be made for work performed under this Section.

00530.90 Payment – Delete and replace with the following:

No payment will be made for steel reinforcement or work performed under this Section, as it is considered incidental to Section 00450.

END OF SECTION

SECTION 00540 – STRUCTURAL CONCRETE

Comply with Section 00560 of the Standard Specifications, supplemented and/or modified as follows:

00540.80 Measurement – Delete and replace with the following:

No measurement of quantities will be made for work performed under this Section.

00540.90 Payment – Delete and replace with the following:

No payment will be made for structural concrete or work performed under this Section, as it is considered incidental to Section 00450.

No separate or additional payment will be made for:

- Surface finish, fogging, curing, joint filler, admixtures and other similar items, and for all other
- Items required to complete the concrete work
- Portland cement and fly ash used in excess of the minimum specified
- Extra concrete required to fill footings cast directly against rock or soil or where forms are omitted
- Extra work or materials due to culvert exceeding the 39-foot length.

END OF SECTION

SECTION 00641 - AGGREGATE SUBBASE, BASE, AND SHOULDERS

Comply with Section 00641 of the Standard Specifications, supplemented and/or modified as follows:

00641.10(a) Materials: Base and Shoulder Aggregate – Replace the Subsection with the following:

All aggregate for bases and shoulder rock shall consist of dense-graded, 3/4"-0, base rock that meets the requirements for dense-graded base aggregate per section 02630.10.

00641.10(b) Materials: Subbase Aggregate – Replace the subsection with the following:

All aggregate for subbases shall consist of crushed, dense-graded, 1 1/2"-0 rock, unless otherwise specified in the Design Plans.

Maximum size aggregate shall not exceed seventy-five percent (75%) of the compacted thickness of the layer in which it is incorporated. Aggregates passing the quarter (1/4)-inch sieve shall not be less than ten percent (10%) nor more than fifty percent (50%) of the whole, by weight. No more than ten percent (10%) of the aggregate shall pass the No. 100 sieve. Within these limits, the subbase aggregate gradation shall be adequate to produce a dense, firm base when placed and compacted.

00641.16 Acceptance of Aggregates – Delete and replace with the following:

Acceptance will be based on approved mix design submittal, satisfactory test results, and visual inspection by the Engineer.

00641.80 Measurement – Delete and replace with the following:

The accepted quantities of aggregate base and aggregate subbase will be based on a neat line calculation and will not be measured, unless changes are ordered by the Engineer. The quantities of aggregate base will be based on the number of square yards of aggregate base constructed to the full thickness for the reconstructed maintenance access road/pedestrian path. The triangular portion of the shoulder gravel is considered incidental.

No separate measurement will be made for aggregate base or aggregate subbase for concrete sidewalk, concrete sidewalk ramps, or concrete driveways.

00640.90 Payment – Delete and replace with the following:

The accepted quantities of aggregate base will paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Aggregate Base – 2" Thick (3/4"-0)	Sq. Yd.
b) Aggregate Base – 5" Thick (3/4"-0)	Sq. Yd.
c) Aggregate Subbase – 6" Thick (1-1/2"-0)	Sq. Yd.

Payment will be made in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for:

- Water used to obtain proper compaction and in the care of the work
- Aggregate base for concrete sidewalk, concrete sidewalk ramps, or concrete driveways
- Subgrade geotextile separation fabrics
- The triangular portion of the shoulder base rock

END OF SECTION

SECTION 00744 – ASPHALT CONCRETE PAVEMENT

Comply with Section 00745 of the Standard Specifications, supplemented and/or modified as follows:

00744.11(a) Asphalt Cement – Add a second paragraph of this Subsection as follows:

Use PG 70-22 or PG 64-22 asphalt cement for all HMAC provided for this project, unless otherwise directed by the City.

00744.80 Measurement – Replace this Subsection with the following:

The accepted quantities of HMAC will be based on a neat line calculation and will not be measured, unless changes are ordered by the Engineer.

No deductions and no separate measurements will be made of asphalt cement, mineral filler, lime, anti-strip, or any other additive used in the mixture.

No separate measurement will be made for asphalt tack coat.

00744.90 Payment – Modify this Section as follows:

The accepted quantities of HMAC will paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Access Road Surface - 3" Thick Level 2, ½ inch Dense, HMAC	Sq. Yd.

Payment will be paid in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for the asphalt tack coat or crack seal.

END OF SECTION

SECTION 01030 - SEEDING

Comply with Section 01030 of the Standard Specifications, supplemented and/or modified as follows:

01030.11 Topsoil – Delete and add the following:

Topsoil shall be used from stockpiled topsoil selected from excavations on the site. Selected topsoil shall adhere to the requirements outlined in Section 1040.14(a).

If additional topsoil is needed, topsoil meeting the requirements of 01040.14 shall be imported and furnished.

01030.13(d) Inspection – Delete this Subsection.

01030.13(f) Types of Seed Mixes – Add the following:

See Plans for seed mix.

01030.13(g) Availability – Delete this Section.

01030.15 Mulch – Delete Subsection (c).

01030.17 Pesticides – Delete this Section.

01030.30 General – Delete this Section.

01030.62 Establishment Work – Delete Subsections (3) and (4).

(5) Repair and Restore – Delete and replace with:

Repair and restore soil grades and re-seed damaged, settled, or unproductive areas to the specified conditions of this Section at no additional cost to the Agency for a period of two (2) years after acceptance.

01030.80 Measurement – Delete and replace with the following:

The quantities of seeding and associated work performed under this Section will be measured according to area.

01030.90 Payment – Delete and replace with the following:

The accepted quantities of seeding and associated work performed under this

Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Native Enhancement Grass Seed Mix	Square Yard

No separate payment will be made for any work included in Section 00280.

Payment includes preparing the seed bed, soils preparation, seeding, fertilizing, mulching, applying tacking agent, temporary irrigation, and all establishment work, as required by the specifications.

Payment will be paid in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No additional or separate payments will be made for the following:

- Preparing the seed bed
- Soils preparation
- Mulch
- Fertilizing
- Applying tackifier agents
- Temporary irrigation
- Herbicide or pesticide applications

END OF SECTION

SECTION 01040 - PLANTING

Comply with Section 01040 of the Standard Specifications, supplemented and/or modified as follows:

01040.02 Definitions– Add the following:

Invasive Species – Non-native plants and invasive vegetation identified as plants that threaten the ecological processes that preserve the water quality functions of wetland and riparian areas. Invasive species are identified in Chapter 3 of the Clean Water Services (CWS) Design and Construction Standards (R&O 07-20) and the *Clean Water Services Integrated Vegetation and Animal (IVAM) Guidance Manual* (March 2003).

Invasive Species Control – Control of invasive species as identified *Clean Water Services Integrated Vegetation and Animal (IVAM) Guidance Manual* (March 2003).

Weed Control – Synonymous with "Invasive Species Control."

01040.03 General – Add the following:

> **(e) Specified Plantings** – Furnish plants meeting the requirements and specifications set forth on Sheet L1 of the approved Plans and per Appendix A of the Clean Water Services (CWS) Design and Construction Standards (R&O 07-20).

01040.03(b) Pesticide Applicators License and Chemical Registration – Delete this Subsection.

01040.04 Coordination – Delete Subsection (a).

01040.04(b) Notice for Inspections – Delete this Subsection and replace with the following:

Notify the Agency and Clean Water Services a minimum of seventy-two (72) hours prior to each required inspection.

01040.13 Soil Testing – Delete this Subsection.

01040.14(a) Selected Topsoil – Delete this Subsection and replace with the following:

(a) Selected Topsoil - Furnish and stockpile native topsoil from the required excavations. The Agency will make the final determination of the areas where the most suitable materials exist. Furnish topsoil that is the fertile part of a soil profile, commonly referred to as the "A" horizon and typically ranging in depth from three (3) inches to twelve (12) inches. Do not take material for topsoil from

a depth greater than twelve (12) inches below existing ground, unless approved. Select only sources that are well-drained and, before stripping, have a healthy crop of vegetative growth. Remove and dispose of all undesirable plants, roots, and seeds before stockpiling selected topsoil from excavations.

Selected topsoil shall have the following characteristics to ensure a good growing medium:

a. Texture – Material passes through one (1)-inch screen
b. Fertility – Thirty-five percent (35%) organic matter

(b) Imported Topsoil – Furnish composted-amended topsoil from non-Agency controlled lands that, has the following characteristics to ensure a good growing medium:

a. Texture – Material passes through one (1)-inch screen
b. Fertility – Thirty-five percent (35%) organic matter

If directed by the City, imported topsoil may be required for the project due to the lack of suitable selected topsoil materials on site (as determined by City). Additional payment will be made to import topsoil approved by the City.

01040.15 Soil Conditioners – Delete this Subsection and heading and replace with the following:

01040.15 Soil Conditioners, Amendments, and Fertilizers - Where appropriate and necessary to enhance organic matter, leaf compost may be placed uniformly on topsoil. Other amendments, conditioners, and bio-amendments may be added as needed to support the specified plants or adjust the soil pH. Traditional fertilization techniques (applying N-P-K) are not necessary for native plants.

01040.16 Soil Amendments – Delete this Subsection.

01040.17 Soil Bio-Amendments – Delete this Subsection.

01040.18 Fertilizer – Delete this Subsection and heading and replace with the following:

01040.18 Invasive Species Removal – The Contractor is responsible for removal of non-native, invasive weeds and plants within the disturbed area limits.

(a) Weed Control Period – During the two (2)-year maintenance period, the Contractor is responsible for removal of non-native, invasive vegetation. All non-native, invasive plant species shall be removed as directed by the City or Engineer at the semi-annual inspection.

01040.19(g) Contract Grown Plant Materials – Delete this Subsection.

01040.20 Mulch – Add the following paragraph:

Trees, shrubs, and groundcovers planted in upland areas shall be mulched a minimum of three (3) inches in depth and eighteen (18) inches in diameter, to retain moisture and discourage weed growth around newly installed plant material. Appropriate mulches are made from composted bark or leaves that have not been chemically treated. The use of mulch in frequently inundated areas shall be limited to avoid any possible water quality impacts, including the leaching of tannins and nutrients and the migration of mulch into waterways.

01040.20(b) Cinder Mulch – Delete this Section and add the following:

Cinder mulches are not allowed for use within this project.

01040.20(d) Rock Mulch – Delete this Section and add the following:

Rock mulch is not allowed for use within this project.

01040.22 Water – Delete this Subsection.

01040.41 Planting Season (West of the Cascades) – Delete this Subsection and replace with the following:

Plantings should preferably be installed between February 1 and May 1 or between October 1 and November 15. Plants may be installed at other times of the year; however, additional measures may be necessary to ensure plant survival.

01040.48 Planting Area Preparation – Add the following paragraph:

For this project, planting area preparations shall be prepared utilizing Method "D" or "E," unless otherwise directed by the City or project Landscape Architect.

01040.70 Plant Establishment: General – Replace the first sentence with the following:

The Contractor is responsible for the survival of plant material until the end of the plant establishment period of two (2) calendar years.

01040.71 Plant Care and Success Criteria – Delete and replace with the following:

During the plant establishment period, maintain plants in a vigorous growing condition by regularly doing the following:

- Watering and fertilizing sufficiently to promote growth.
- Weeding, cultivating, pruning, and repairing.
- Adjusting tree stakes and guys.
- Controlling weeds before they seed, according to 01040.48.

- Controlling pests and noxious weeds before the reproductive cycle.
- Removing and replacing dead or non-vigorous plants.
- Replacing missing plants.
- Remulching of plant bed areas.

The determination of a successful plant establishment will be made during bi-annual plant establishment inspections by the Contractor. A successful planting establishment for each inspection is defined as follows:

- No dead plants or trees are found and seeding is providing surface coverage.

If any mortality is noted on the site, the factor likely to have caused mortality of plantings is to be determined and corrected, if possible.

01040.72 Periodic Inspections – Delete and replace with the following:

During the two (2)-year plant establishment and weed control period, the Contractor will make semi-annual inspections jointly with the Agency at the following times:

- Spring, early May
- Fall, late September

During each plant establishment and/or weed control inspection, the Agency may determine, based upon the specified success criteria and invasive species coverage, that corrective work is required. If so, the Agency will provide the Contractor with a written notice of required corrective work, sent by hand-delivery, email, or mail.

Upon completion of the original planting, full payment will be made of the bid item for all plantings shown on Plans. Payment for the amount of the Bid Price in the Bid Schedule or minimum price per pay item name, whichever is greater, will be withheld for the two (2)-year plant establishment and weed control period. If the Bidder bids a unit price less than the price stated in the Pay Item Name, the minimum price as stated in the Pay Item Name will replace the Bidder's unit price, with the Bid Total being changed accordingly. Bids submitted with amounts lower than the minimum Bid Price will not disqualify the bid.

01040.80 Measurement – Delete and replace with the following:

The quantities of plant materials will be measured on a unit basis.

No measurement will be made for invasive species removal or plant establishment and weed control.

01040.90 Payment – Replace with the following:

The accepted quantities of seeding and associated work performed under this

Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Invasive Species Removal	Lump Sum
b) Vegetated Corridor Enhancement Tree, ___ Type	Each
c) Vegetated Corridor Enhancement Shrub, ___ Type	Each
d) Imported Topsoil	Cubic Yard
e) Weed Control, 2-Years, $500.00 min.	Lump Sum
f) Plant Establishment, 2-Years, $500.00 min.	Lump Sum

No separate payment will be made for any work included in Section 00280.

Payment includes preparing the seed bed, soils preparation, seeding, fertilizing, mulching, applying tacking agent, temporary irrigation, and all establishment work, as required by the specifications.

Payment will be paid in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

No additional or separate payments will be made for the following:

- Soils preparation
- Soil amendments and bio-amendments
- Fertilizing
- Mulching, including materials required for replacement planting
- Temporary irrigation
- Herbicide or pesticide applications
- Tree stakes and ties
- Browsing protectors
- Trunk wraps
- Game repellant

Payment for (e) and (f) will be made upon acceptance of the inspection/corrective actions by the Agency, at which point one quarter (¼) of the Lump Sum amount will be paid.

END OF SECTION

SECTION 01050 - FENCES

Comply with Section 01050 of the Standard Specifications, supplemented and/or modified as follows:

01050.10 Materials – Add the following:

Timber Rail/Fence 03010.45

01050.42 Optional Posts – Delete this Section.

01050.44 Barbed and Woven Wire Fence – Delete this Section and replace with the following:

01050.44 Wood Fence – Construct wood fences/rails per the Plans or match existing fence type as directed on the Plans.

Concrete: All corner, gate, end, or line wood posts shall be set in concrete. Construct concrete footings according to 01050.43(a-3).

Construction Methods: Wood fence posts shall be set true to line and grade in concrete bases at least two and a half (2.5) feet in depth. All posts shall be sound and free from all decay, splits, multiple cracks, or any other defect that would weaken the posts or otherwise cause them to be structurally unsuitable for the purpose intended.

The maximum distance between posts in any section shall not exceed four (4) feet. The top and bottom railings shall be securely fastened to the posts with galvanized screws or other acceptable means. Changes in line of thirty degrees (30°) or more shall be considered as corners. A minimum of six (6) inches of concrete shall be provided below the bottom of each post. End post, corner post, and gate post shall have a concrete base at least twelve (12) inches in diameter. Bases for line posts shall also be twelve (12) inches in diameter.

Wood fence slats shall be placed on the roadway side of posts, unless otherwise specified. The slats shall be placed approximately one (1) inch above the ground and on a straight grade between posts by excavating high points of the ground. Filling depressions will be permitted only upon approval of the City. The slats/fence boards shall be sound and free from all major decay or defects that would weaken or otherwise cause them to be unsuitable for fence slats. Fastening to top and bottom railings shall be done with two galvanized screws at both the top and bottom rail.

01050.46 Protective Fence for Bridges – Delete this Section.

01050.80 Measurement– Delete and replace with the following:

The measurement of quantities of fence/rail will be made by linear foot of fencing reinstalled and/or constructed.

01050.90 Payment – Delete and replace with the following:

The accepted quantities of work performed under this section will paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	**Unit of Measurement**
a) 4-foot, 6-inch Timber Rail Fence	Foot

Payment will be paid in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

END OF SECTION

SECTION 01095 – CHANNEL FILL MATERIAL

Add Section 01095 to the Standard Specifications as follows:

Description

01095.00 Scope – This work consists of furnishing channel stream bed and channel materials within the completed Multi-Plate Single Radius Arch Culvert, at locations shown or directed on the Project Plans.

01095.01 Definitions –

Shadow Boulder – Large shadow rock boulder consisting of large riprap boulder placed and embedded in the streambed material within the pipe arch to define and direct water flows through the culvert as shown on the Project Plans.

- Minimum diameter = twelve (12) inches
- Maximum diameter = twenty-four (24) inches

Materials

01095.02 Channel Material Fill Mix - Manufactured streambed material for placement to create creek channel bed through the completed bottomless arch culvert. Channel material mix shall consist of the following materials:

- Fifty percent (50%) fines (Select general backfill, silt, sand)
- Forty-five percent (45%) small rock (durable, washed, rounded gravel containing no particles smaller than one-half (0.5) inches or larger than six (6.0) inches).
- Five percent (5%) Shadow boulders per Section 00390.

The Engineer may accept aggregates by visual inspection.

01095.40 General – The channel material fill mix shall be placed above native silt and fill materials to create the channel through the completed Multi-Plate Single Radius Arch Culvert. The channel surface material shall be placed in a layer that is a minimum of twelve (12.0) inches thick.

The fines and small rock shall be mixed prior to placement within the culvert. Shadow boulders shall protrude thirty (30) to fifty (50) percent of its diameter above the final creek bed elevation.

Measurement

01095.80 Measurement – The quantities of channel material mix will be measured on an area basis by surface measurement of the material in place, limited to the established neat lines and grades as shown on the Project Plans.

Payment

01095.90 Payment – The accepted quantities of channel material fill mix will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
a) Channel Material Fill Mix	Square Yard

Payment will be paid in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Shadow boulders are considered incidental to riprap and will be paid under the bid item "Class 200 Riprap".

No separate or additional payment will be made for fine grading and placement of channel material fill within the Multi-Plate Single Radius Arch Culvert.

END OF SECTION

SECTION 03010 – FENCING MATERIALS

Comply with Section 003010 of the Standard Specifications, supplemented and/or modified as follows:

03010.45 Wood Fences/Rails – Add the following Subsection:

03010.45 Wood Fences/Rails – All wood fence/rail materials shall consist of the following:

a) End or Line Posts: Minimum four-inch by four-inch (4"x4") or four-inch by six-inch (4"x6") Pressure Treated (PT) Fir posts.
b) Rails: Minimum two-inch by four-inch, No. 1 Grade cedar. Maximum four (4)-inch gap between rails.
c) All fasteners to be hot-dipped galvanized.
d) All wood to be pressure treated with ACZA to a minimum retention of one-quarter (0.25) pounds per cubic foot, in accordance with AWPA Standard C2.
e) All lumber sizes are nominal.

END OF SECTION

SECTION 03020 – BID ALTERNATES

03020.00 Scope – Bid Alternates are Bid Items that may be necessary for the construction of the project. The Contractor shall contact the Engineer prior to implementing any Bid Alternates for approval. Construction of Bid Alternates without prior Engineer approval are at the Contractor's expense.

03020.80 Measurement – Measurements shall be in accordance with the specific Bid Alternate constructed.

03020.90 Payment – Payment shall be in accordance with the specific Bid Alternate item.

END OF SECTION

SECTION 03030 – PERMIT REQUIREMENTS

03030.00 Scope – All construction for this project shall adhere to all required permits for this project. Permits include, but are not limited to, Erosion Control permit, CWS Service Provider Letter, CWS Storm Water Connection Permit Authorization, and U.S. Corps of Engineers/DSL permits.

03030.80 Measurement – There will be no measurement for work under this Section.

03030.90 Payment - There will be no payment for work under this Section.

END OF SECTION

Division Five
Supplemental Information

HGSI HARDMAN GEOTECHNICAL SERVICES INC.
Practical, Cost-Effective Geotechnical Solutions

July 22, 2015
HGSI Project No. 15-1874

Craig Christensen
City of Sherwood
22560 SW Pine Street
Sherwood, Oregon 97140

Submitted in digital format (pdf) via email
Hard copies will be mailed on request

Subject: **GEOTECHNICAL EVALUATION OF FOUNDATION SOILS**
COLUMBIA STREET FISH PASSAGE – ARCH CULVERT
SHERWOOD, OREGON

In accordance with your request, Hardman Geotechnical Services Inc. (HGSI) prepared this report containing results of our geotechnical evaluation of foundation soils for the proposed arch culvert at the Columbia Street Fish Passage in Sherwood, Oregon. This letter report presents results of our hand auger borings, and also includes geotechnical recommendations for arch culvert design and construction. The project involves construction of a 15' x 6'-7" bottomless arch storm culvert within an existing drainage swale. Spread footing foundation will be used to support the "feet" of the bottomless arch culvert.

HAND AUGER BORINGS

On July 11, 2015 HGSI drilled two hand auger borings to evaluate subgrade support conditions for the stream crossing structure. Approximate locations of the borings, designated HA-1 and HA-2, are shown on Figure 1. The hand auger borings were drilled into stiff native soils to maximum depths of 6 feet below ground surface (bgs).

At the completion of the hand augers, holes were backfilled with the excavated spoils and tamped into place. This backfill should not be expected to behave as compacted structural fill and some minor settling of the ground surface may occur.

Explorations were conducted under the full-time observation of geotechnical personnel. Soil samples were classified in the field and representative portions were placed in relatively air-tight plastic bags. These soil samples were then returned to the laboratory for further examination and laboratory testing. Pertinent information including soil sample depths, stratigraphy, soil engineering characteristics, and groundwater occurrence was recorded. Soils were classified in general accordance with the Unified Soil Classification System.

Summary hand auger boring logs are attached. The stratigraphic contacts shown on the individual logs represent the approximate boundaries between soil types. The actual transitions may be more gradual. The soil and groundwater conditions depicted are only for the specific dates and locations reported, and therefore, are not necessarily representative of other locations and times.

SUBSURFACE CONDITIONS

The following discussion is a summary of subsurface conditions encountered in the test pit explorations. For more detailed information regarding subsurface conditions at specific exploration locations, refer to the attached test pit logs. Also, please note that subsurface conditions can vary between exploration locations, as discussed in the Uncertainty and Limitations section below.

Soils

On-site soils are anticipated to consist of organic topsoil, soft organic clayey silt to silty clay, and medium stiff to stiff silt as described below. Please note that HA-1 was drilled on the downstream side of the existing culvert, in the lowest portion of the drainage. HA-2 was drilled on the upstream side of the culvert, about 10 feet away from the stream channel bottom.

Topsoil – In both hand auger borings, the ground surface was directly underlain by an organic topsoil horizon. The soils ranged from highly organic silt 18 inches thick (HA-1) to moderately organic silt 12 inches thick (HA-2).

Highly Organic Clayey Silt to Silty Clay – Beneath the topsoil in HA-1 was a layer of soft, moderately organic, clayey silt to silty clay. This soft organic material was not encountered in HA-2, and extended to a depth of about 4 feet in HA-1.

Medium Stiff Clayey Silt to Silt – Underlying the topsoil horizon and soft organic soils in HA-1, and underlying the topsoil layer in HA-2, hand auger borings encountered medium stiff to stiff silt. Depth to this medium stiff soil was about 4 feet bgs in HA-1 and about 1 foot in HA-2. The medium stiff to stiff silt extended to the bottom of both borings, at about 6 feet bgs.

Groundwater

During the field exploration, wet soil conditions were encountered below a depth of about 4 feet in HA-1. Standing water in the drainage and free water in the hand auger borings were not present at the time of our field exploration, likely because of the timing during the dry summer months. During wet weather we anticipate free water flowing within the drainage. Perched groundwater conditions often occur over fine-grained native deposits such as those beneath the site, particularly during the wet season. It is anticipated that groundwater conditions will vary depending on the season, local subsurface conditions, changes in site utilization, and other factors.

ARCH CULVERT DESIGN AND CONSTRUCTION RECOMMENDATIONS

The following report sections address geotechnical issues for the arch culvert structure, including foundation support, construction dewatering, lateral earth pressures, and backfill placement and compaction.

Foundation Support

We understand the drainage crossing will consist of a 15' x 6'-7" bottomless arch storm culvert within an existing drainage swale. Spread footing foundation will be used to support the "feet" of the bottomless arch culvert. Based on the subsurface conditions observed in the hand auger borings, we anticipate the exposure of medium stiff to stiff silt soils at depths ranging from about 4 to 1 foot. Within the drainage channel, we encountered soft organic soils that are not suitable to support the planned culvert. We recommend overexcavation of the unsuitable soils to medium stiff, low organic silt, and backfilling with 4-inch minus quarry rock at the footing locations.

Where soft, organic soils are not present, we recommend overexcavation to a minimum depth of 18 inches below bottom of footing elevation, and backfilling the overexcavation zone with 4-inch minus quarry spalls material. The upper 6 inches of backfill material should consist of ¾"-0 crushed rock to provide a levelling surface for the culvert footings. Backfill materials should be compacted to a firm and unyielding state, but care should be taken to avoid overcompaction which could result in pumping foundation soils. For foundation soils prepared in this manner, we recommend the proposed culverts be designed for a maximum allowable bearing pressure of 3,000 psf. The recommended maximum allowable bearing pressure may be increased by a factor of 1.33 for short term transient conditions such as wind and seismic loading. For culvert foundations designed and constructed as recommended herein, we estimate total settlements of 1½ inches, and differential settlement of ¾ inch.

The arch culvert footings should be embedded below the depth of anticipated scour. It should be noted that evaluation of stream bed scour is beyond the scope of this study.

Culvert footing excavations should be observed by HGSI prior to formwork and pouring concrete, to verify that soil conditions are as anticipated and adequate to support the planned loads.

Construction Dewatering

Based on the subsurface conditions observed in our explorations, it is anticipated that groundwater may be encountered during installation of the arch culvert. If shallow groundwater is encountered, we expect that it can be controlled using ditches, sumps, and pumps; however, the need for and type of dewatering system required will depend on the depth of the excavations, the groundwater level at the time of construction, and the level of water in the creek. Regardless of the dewatering system used, it should be installed and operated such that natural soils are prevented from being removed along with the groundwater.

Lateral Earth Pressures

Lateral earth pressures against below-grade structures will depend upon the inclination of any adjacent slopes, type of backfill, degree of wall restraint, method of backfill placement, degree of backfill compaction, drainage provisions, and magnitude and location of any surcharge loads. At-rest soil pressure is exerted on a subsurface structure or wall when it is restrained against rotation.

Assuming the culvert structure(s) will be designed to allow movement of the culvert walls sufficient to allow use of active earth pressure conditions, the below-grade structure walls should be designed for a horizontal equivalent fluid pressure of 31 pounds per cubic foot (pcf) above the design groundwater level and 77 pcf below the design groundwater level. The value of 77 pcf includes hydrostatic pressure. For restrained walls, the at-rest earth pressure values recommended for design would be 50 pcf and 88 pcf above and below the groundwater level respectively. For the purposes of design, we suggest assuming a static groundwater level at the maximum anticipated stream level.

The above recommendations regarding lateral earth pressures assume that the backfill behind the walls of the culverts will consist of properly compacted structural fill, and do not include adjacent surcharge loads. If the below-grade structure will be subjected to the influence of surcharge loading within a horizontal distance equal to or less than the height of the walls, the walls should be designed for the additional horizontal pressure using a suitable method for modeling surcharge loads.

Lateral loads will be resisted by passive earth pressures on the sides of the footings and by friction on the base of the footings. Passive resistance may be evaluated using an equivalent fluid density of 390 pcf. The top of the triangular passive pressure distribution should begin at a depth of 1 foot below the ground surface. Frictional resistance can be evaluated using 0.5 for the coefficient of base friction against the bottom of spread footings bearing on the recommended quarry rock or crushed rock leveling pad. These values are ultimate and a suitable factor of safety should be incorporated in design.

Backfill Placement and Compaction

We recommend that the backfill for the culvert crossing consist of ¾"-0 crushed rock, recycled concrete or other granular material approved by HGSI prior to use. For these backfill materials, we recommend assuming a total unit weight of 130 pcf for use in design. During placement of the initial lifts, the backfill material should not be bulldozed into the excavation or dropped directly on the culvert. Furthermore, heavy vibratory equipment should not be permitted to operate directly over the structure until a minimum of 3 feet of backfill has been placed, or in accordance with the manufacturer's recommendations, whichever is more restrictive.

In order to minimize subsequent settlement of the excavation backfill and potential impacts of such settlement, it is recommended that backfill soils be placed in horizontal lifts less than 12 inches in thickness, and compacted to at least 95 percent of maximum dry density, as determined using test

method ASTM D 698 (Standard Proctor). When access constraints prohibit the use of heavy equipment, smaller equipment can be used, but the soil must be placed in thin enough lifts to achieve the required compaction.

UNCERTAINTY AND LIMITATIONS

We have prepared this report for the client, for use in design and construction of this project only. Sufficient geotechnical monitoring, testing and consultation should be provided during construction to confirm that the conditions encountered are consistent with those indicated by explorations. Recommendations for design changes will be provided should conditions revealed during construction differ from those anticipated, and to verify that the geotechnical aspects of construction comply with the contract plans and specifications.

Within the limitations of scope, schedule and budget, HGSI executed these services in accordance with generally accepted professional principles and practices in the field of geotechnical engineering at the time the report was prepared. No warranty, expressed or implied, is made. The scope of our work did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous or toxic substances in the soil, surface water, or groundwater at this site.

We appreciate this opportunity to be of service.

Sincerely,

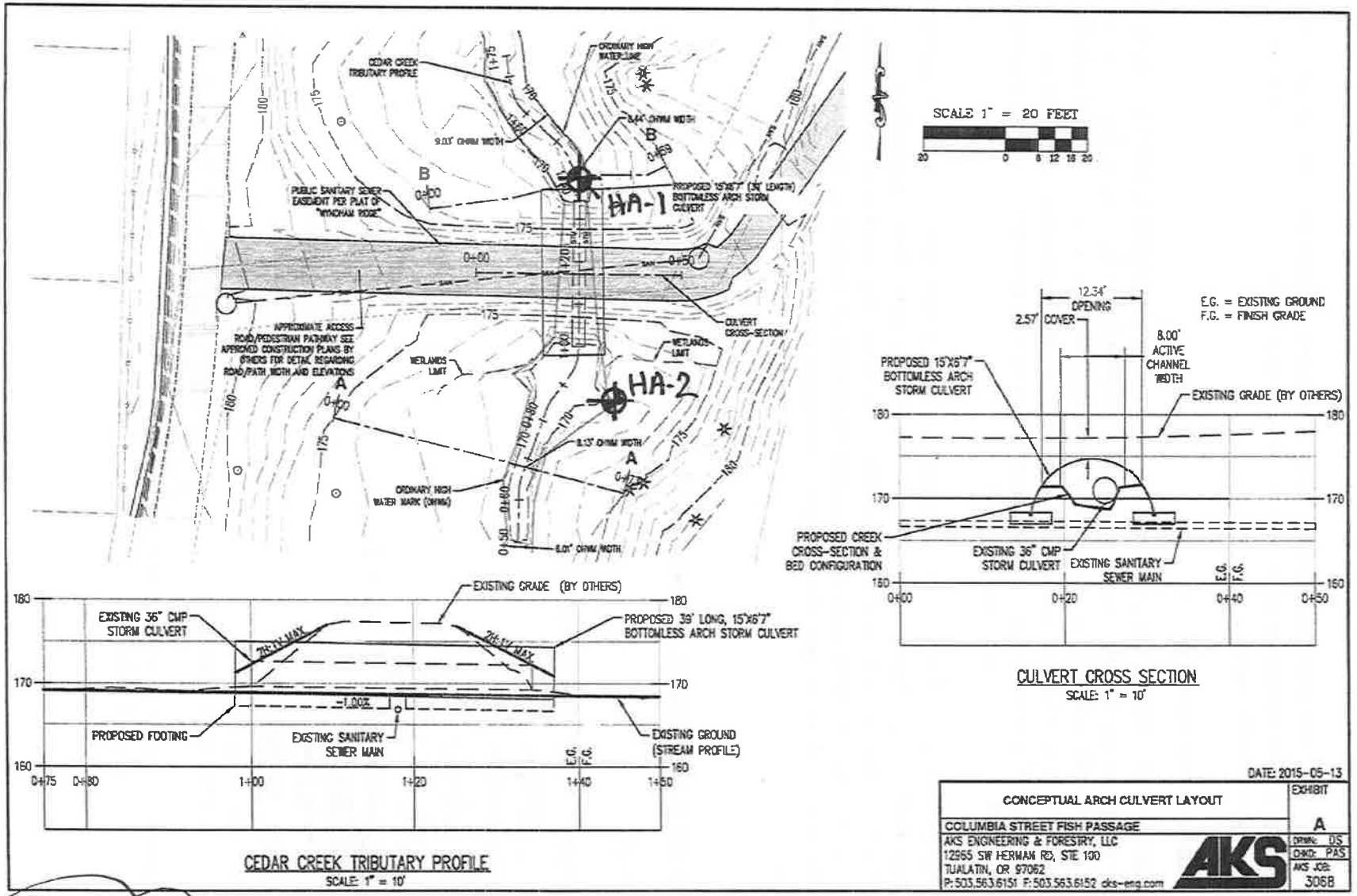
HARDMAN GEOTECHNICAL SERVICES INC.

7-22-15

EXPIRES: 6-30-17

Scott L. Hardman, P.E., G.E.
Principal Geotechnical Engineer

Attachments: Figure 1 – Site and Exploration Plan
Logs of Hand Auger Borings HA-1 and HA-2



CULVERT CROSS SECTION
SCALE: 1" = 10'

CEDAR CREEK TRIBUTARY PROFILE
SCALE: 1" = 10'

DATE: 2015-05-13

CONCEPTUAL ARCH CULVERT LAYOUT	EXHIBIT A
COLUMBIA STREET FISH PASSAGE	

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
P: 503.563.6151 F: 503.563.6152 aks-eng.com

DRWN: DS
CHKD: PAS
AKS JOB: 3068

HA-2 ⊕ HAND AUGER BORING, APPROX. LOC.

FIGURE 1

HAND AUGER BORING LOG

Project: Columbia Street Fish Passage Sherwood, Oregon	Project No. 15-1874	Boring No. HA-1

Depth (ft)	Sample Interval	Sample Designation	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Groundwater	Material Description
						Soft, dark brown, highly organic SILT (OH), many roots, moist to very moist (Topsoil)
2						Soft, moderately organic, dark brown clayey silt to silty clay (MH-CL), very moist.
4						Medium stiff, dark gray to bluish gray, clayey SILT (ML-CL), wet
6						Boring terminated at 6 feet No groundwater or seepage encountered
8						
10						
12						
14						
16						

HGSI HARDMAN GEOTECHNICAL SERVICES INC.
Practical, Cost-Effective Geotechnical Solutions
10110 SW Nimbus Avenue, Suite B-5
Portland, OR 97223
(503) 530-8076

LEGEND

S-1 — Soil Sample Depth Interval and Designation

Water Level at Time of Drilling

Date Drilled: 7/11/15

Logged By: CSH

HAND AUGER BORING LOG

Project: Columbia Street Fish Passage Sherwood, Oregon	Project No. 15-1874	Boring No. HA-2

Depth (ft)	Sample Interval	Sample Designation	In-Situ Dry Density (lb/ft³)	Moisture Content (%)	Groundwater	Material Description
0						Soft, dark brown, moderately organic SILT (OL), some roots, moist (Topsoil)
2						Medium stiff to stiff, brown SILT (ML), moist
4						
6						Boring terminated at 6 feet No groundwater or seepage encountered
8						
10						
12						
14						
16						

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Portland, OR 97223
(503) 530-8076

LEGEND

S-1 — Soil Sample Depth Interval and Designation

▽ — Water Level at Time of Drilling

Date Drilled: 7/11/15

Logged By: CSH

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

September 4, 2015

Regulatory Branch
Corps No.: NWP-2015-257

Mr. Craig Christensen
City of Sherwood
22560 SW Pine Street
Sherwood, Oregon 97140

Dear Mr. Christensen:

The U.S. Army Corps of Engineers (Corps) has received the City of Sherwood's permit application requesting Department of the Army authorization to replace a culvert in an unnamed tributary to Cedar Creek. The project is located in Sherwood, Washington County, Oregon. The site is in Section 30 of Township 2 South, Range 1 West (lat 45.36250, long -122.859356)

The project will replace an undersized culvert on an unnamed tributary to Cedar Creek with a larger, fish passable culvert. A 3 foot wide by 34 foot long corrugated metal pipe will be removed and replaced with a 15 foot wide open-bottomed arch culvert. The new culvert width is 1.5 times the existing 8 foot wide active channel width and the inside rise span of the new culvert will be approximately 6 - feet, 7 - inches tall. The new culvert will be 5 - feet longer than the existing culvert in order to meet grade requirements. The culvert will permanently impact a total of 120 square feet of the tributary with native sediment and pre-cast concrete footings. The project is shown on the enclosed drawings (Enclosure 1).

This letter verifies that your project is authorized under the terms and limitations of Nationwide Permit (NWP) No.: 27 (Aquatic Habitat Restoration, Establishment, and Enhancement). Your activities must be conducted in accordance with the conditions found in NWP Regional Conditions, Portland District (Enclosure 2), NWP General Conditions (Enclosure 3), Oregon Department of Environmental Quality (DEQ) 401 Water Quality Compliance Conditions (Enclosure 4), and the project specific conditions lettered (a) through (e) below. **Failure to comply with any of the listed conditions could result in the Corps initiating an enforcement action.**

a. Permittee shall notify the Regulatory Branch with the date activities in waters of the United States are scheduled to begin. Notification shall be sent by e-mail to cenwp.notify@usace.army.mil or mailed to the following address:

U.S. Army Corps of Engineers
CENWP-OD-GC
Permit Compliance, Washington County
PO Box 2946
Portland, Oregon 97208-2946

The subject line of the message shall contain the name of the county in which the project is located followed by the Corps of Engineers permit number.

b. In the event cultural resources and/or historic properties are discovered during the any phase of the authorized work, the Permittee shall fully implement the recommendations outlined in the Inadvertent Discovery Plan (Enclosure 5).

c. Permittee shall perform all in-water work, including temporary fills or structures, during the in-water work window of July 15 to September 30 to minimize impacts to aquatic species unless coordinated with and subsequently approved by the Corps. We also draw your attention to Regional Condition 2.

The Corps has determined the proposed project may affect Upper Willamette River steelhead (*Oncorhynchus mykiss*), a species protected by the Endangered Species Act, and Essential Fish Habitat for salmon species as designated under the Magnuson-Stevens Fishery Conservation and Management Act. The Corps utilized a programmatic biological opinion (BiOp) to assess compliance with these laws and provide coverage for incidental take. The BiOp is titled *Endangered Species Act Section 7 Programmatic Conference and Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Revisions to Standard Local Operating Procedures for Endangered Species to Administer Stream Restoration and Fish Passage Improvement Actions Authorized or Carried Out by the U.S. Army Corps of Engineers in Oregon (SLOPES V Restoration)*, dated March 19, 2013. The Corps recommends that you review the SLOPES opinion in its entirety, which you may obtain on-line at:
http://www.nwp.usace.army.mil/Missions/Environment/SLOPES.aspx

The programmatic consultation also requires that we provide you with the following notice:

If a sick, injured or dead specimen of a threatened or endangered species is found, the finder must notify NMFS' Office of Law Enforcement at 503-231-6240 or 206-526-6133. The finder must take care in handling of sick or injured specimens to ensure effective treatment, and 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 to carry out instructions provided by the Office of Law Enforcement to ensure that evidence intrinsic to the specimen is not disturbed unnecessarily.

d. Permittee shall fully implement all applicable nondiscretionary Terms and Conditions of the Reasonable and Prudent Measures of the SLOPES V Restoration programmatic opinion (Enclosure 6).

e. Permittee shall notify the Corps if the project changes in scope or is otherwise modified. The Corps is required to reinitiate consultation on this action where discretionary Federal involvement or control over the action has been retained or is authorized by law and (a) the amount or extent of taking specified in the Incidental Take Statement is exceeded, (b) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (c) the identified action is subsequently modified in a manner that has an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16).

We direct your attention to NWP Regional Condition 16 (Enclosure 2) and General Condition 29 (Enclosure 3) that requires the transfer of this permit if the property is sold, and NWP General Condition 30 that requires you to submit a signed certificate when the work is completed. A "Compliance Certification" is provided (Enclosure 7).

We have prepared a Preliminary Jurisdictional Determination (JD), which is a written indication that wetlands and waterways within your project area may be waters of the United States (Enclosure 8). Such waters have been treated as jurisdictional waters of the United States for purposes of computation of impacts and compensatory mitigation requirements. If you concur with the findings of the Preliminary JD, please sign it and return it to the letterhead address within two weeks. If you believe the Preliminary JD is inaccurate, an Approved JD may be requested, which is an official determination regarding the presence or absence of waters of the United States. If you would like an Approved JD, one must be requested prior to starting work within waters of the United States. Once work within waters of the United States has been started, the opportunity to request an Approved JD will no longer be available.

This authorization does not obviate the need to obtain other permits where required. Permits, such as those required from the Oregon Department of State Lands (ODSL) under Oregon's Removal /Fill Law, must also be obtained before work begins.

The nationwide permits expire on March 18, 2017. This verification is valid until March 18, 2017 unless the NWP is modified or revoked prior to that date. If you commence or under contract to commence this activity before the date the NWP expires, is modified, or revoked, you will have 12 months from the date of the expiration, modification, or revocation to complete the activity under the present terms and conditions of the current NWP.

We would like to hear about your experience working with the Portland District, Regulatory Branch. Please complete a customer service survey form at the following address: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.

If you have any questions regarding this NWP verification, please contact Mr. Michael LaDouceur at the letterhead address, by telephone at (503) 808-4337, or by e-mail at: michael.a.ladouceur@usace.army.mil.

FOR THE COMMANDER, JOSE L. AGUILAR, COLONEL, CORPS OF ENGINEERS, DISTRICT COMMANDER:

Shawn H. Zinszer
Chief, Regulatory Branch

Enclosures

Copy Furnished:

Oregon Department of State Lands (Huffman)
Oregon Department of Environmental Quality (Nayar)
AKS Engineering and Forestry (Reed)

Corps ID No: NWP-2015-257

REQUEST FOR PERMIT TRANSFER PER GENERAL CONDITION 29

When the structures or work verified by this nationwide are still in existence at the time the property is transferred, and/or a new party obtains this permit verification, the terms and conditions of this permit will continue to be binding on the new permittee. The new permittee should sign and date below to accept the liabilities associated with complying with the terms and conditions of this permit verification, and to validate its transfer.

PERMIT TRANSFEREE:

_____ _____

Signature DATE

_____

Name (Please print)

_____

Street Address

_____

City, State, and Zip Code

NEW OWNER (if applicable):

_____ _____

Signature DATE

_____

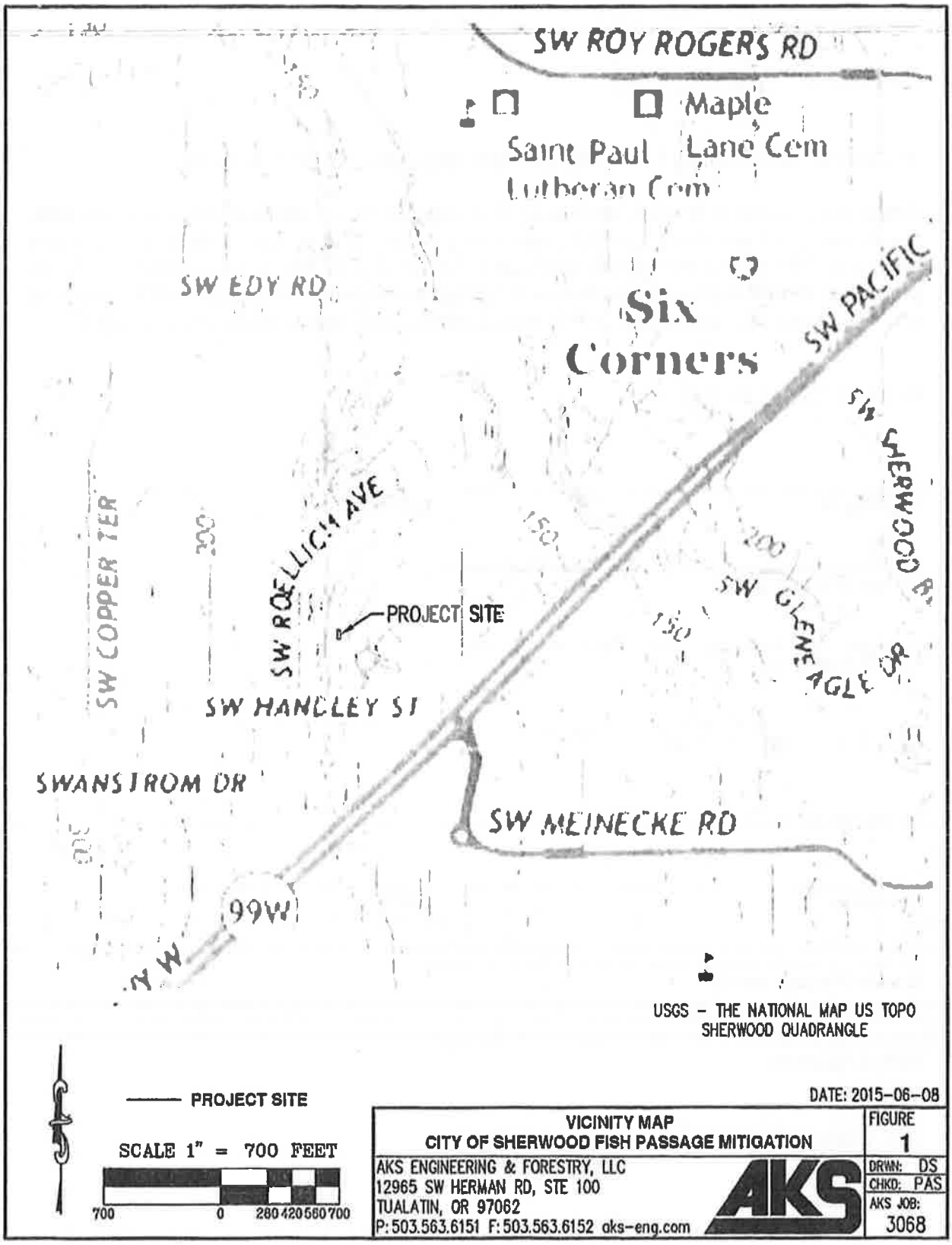
Name (Please print)

_____

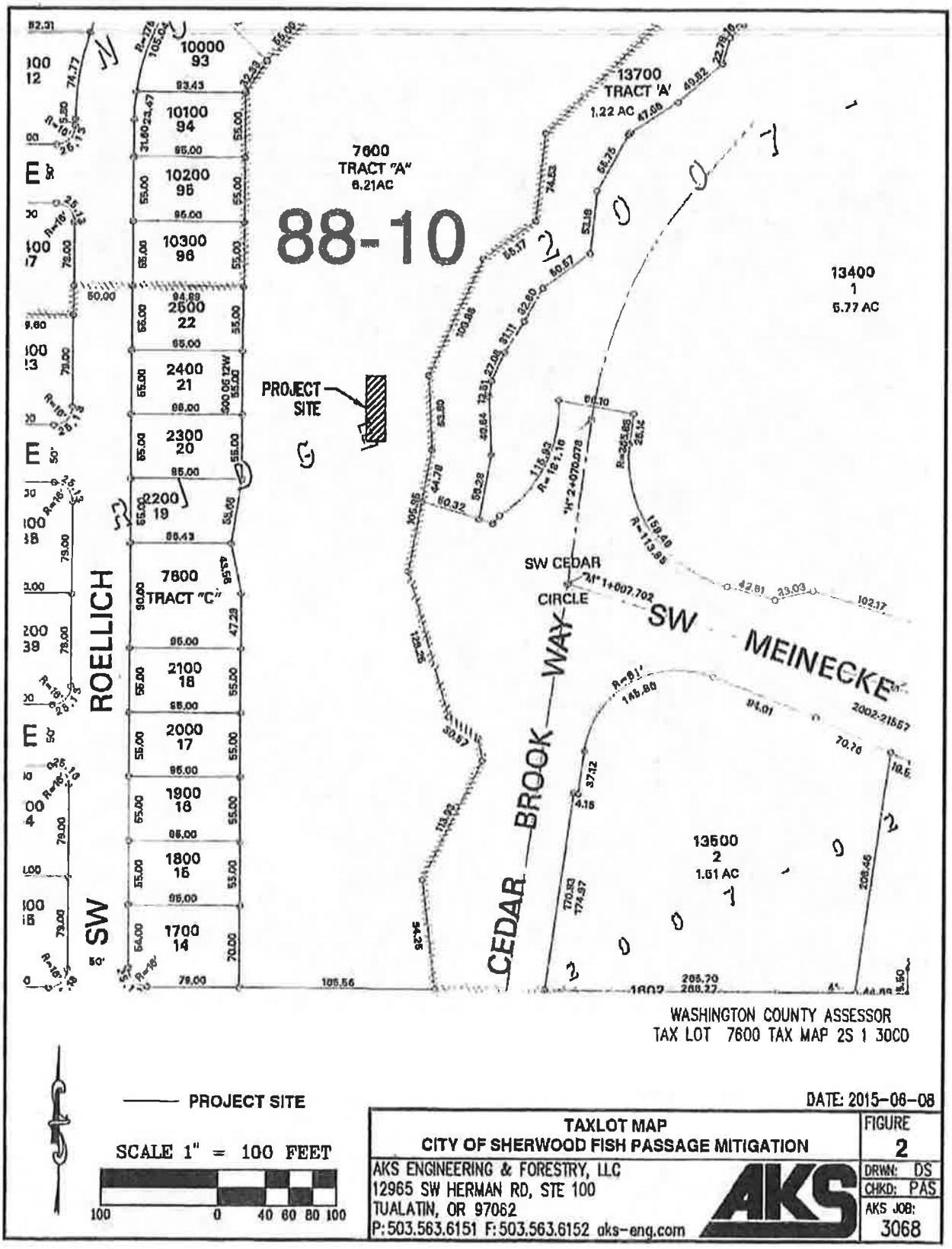
Street Address

_____

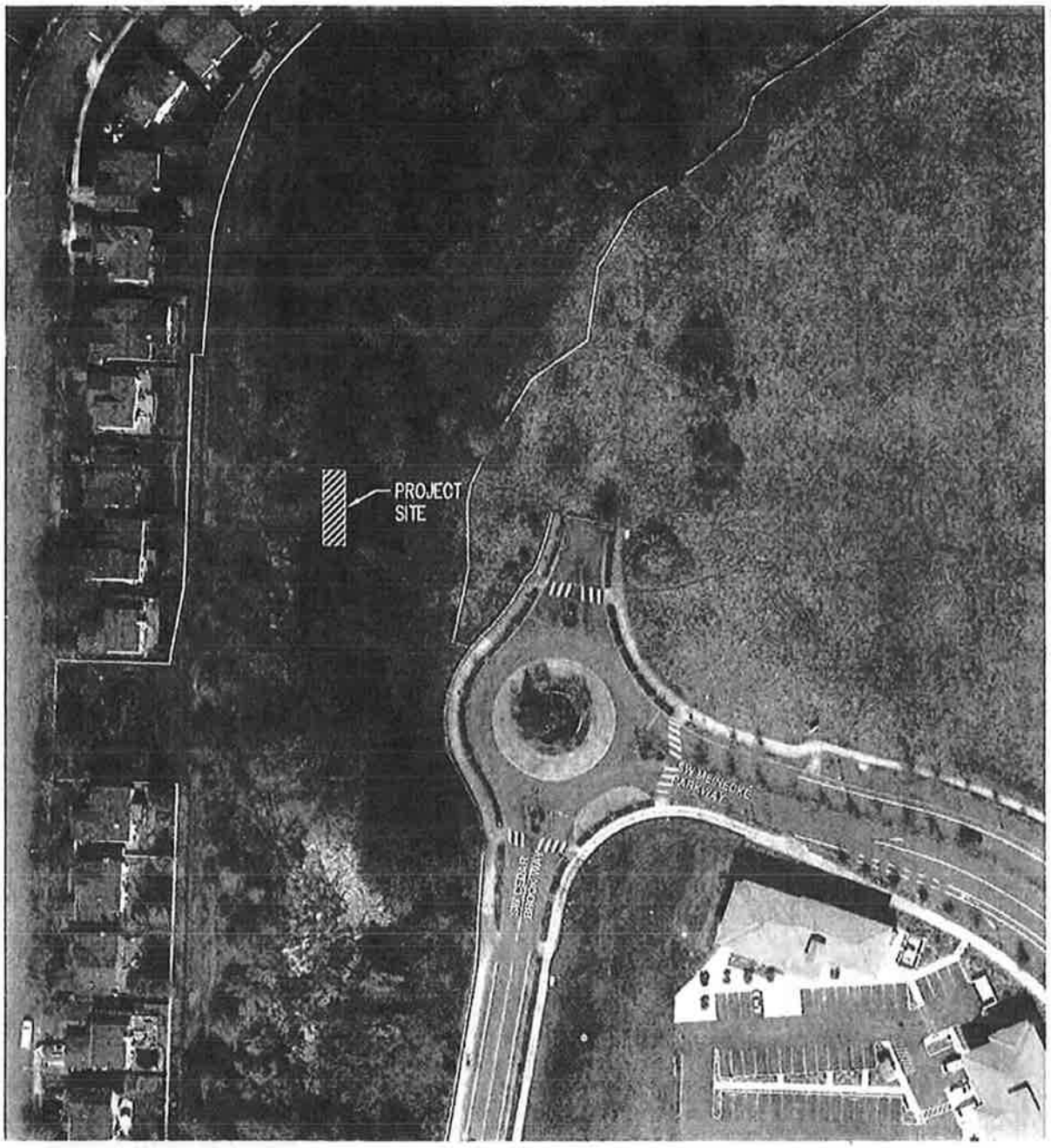
City, State, and Zip Code



DWG: 3068 CORE-DSL FIGURES 1-3 | USGS



DWG: 3068 CORE-DSL FIGURES 1-3 | TAXLOT



PROJECT SITE

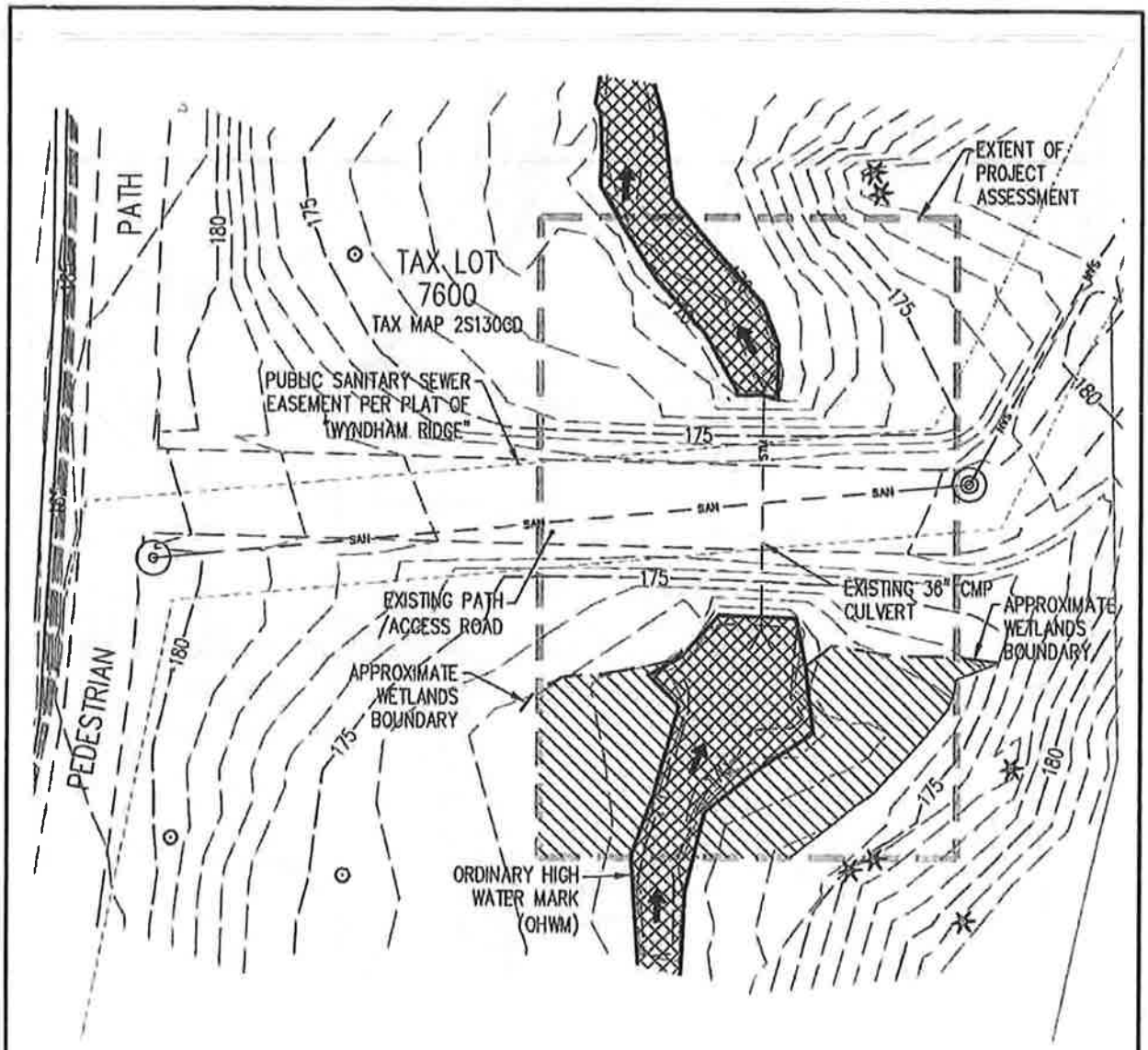
SCALE 1" = 60 FEET

60 0 24 36 48 60

DATE: 2015-06-08

AERIAL PHOTO CITY OF SHERWOOD FISH PASSAGE MITIGATION	FIGURE 3
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 P: 503.563.6151 F: 503.563.6152 aks-eng.com	DRWN: DS CHKD: PAS AKS JOB: 3068

DWG: 3068 CORE-OSL FIGURES 1-3 | AERIAL



LEGEND

EXISTING

- RIGHT-OF-WAY LINE
- ORDINARY HIGH WATER MARK
- PROPERTY LINE
- EDGE OF PAVEMENT
- EASEMENT
- SANITARY SEWER LINE — SAN —
- STORM SEWER LINE — STM —
- AC SURFACE
- WETLAND
- PERENNIAL TRIBUTARY TO CEDAR CREEK

SCALE 1" = 20 FEET

20 0 8 12 16 20

DATE: 2015-06-08

EXISTING CONDITIONS PLAN
CITY OF SHERWOOD FISH PASSAGE MITIGATION

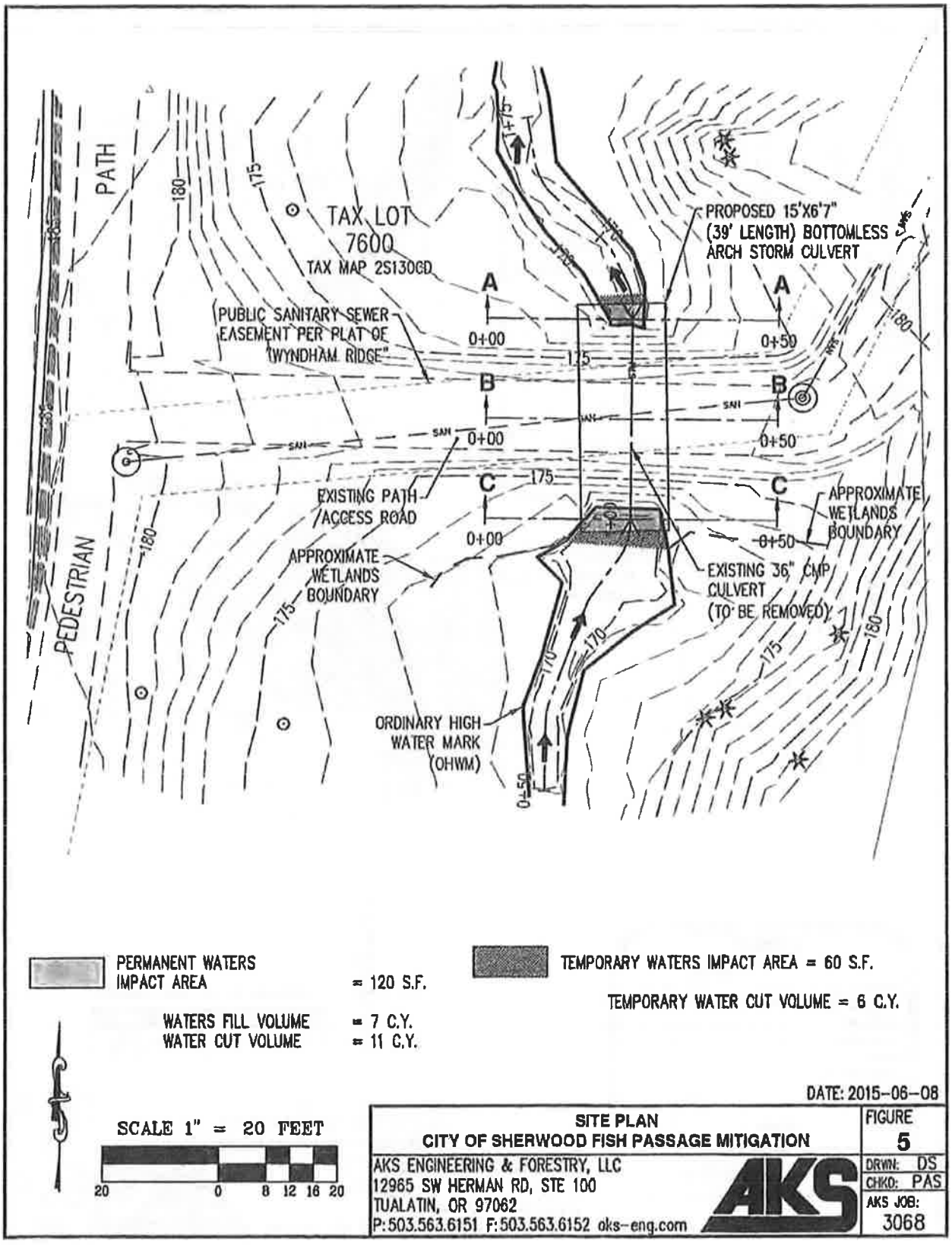
FIGURE 4

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
P: 503.563.6151 F: 503.563.6152 aks-eng.com

AKS

DRWN: DS
CHKD: PAS
AKS JOB: 3068

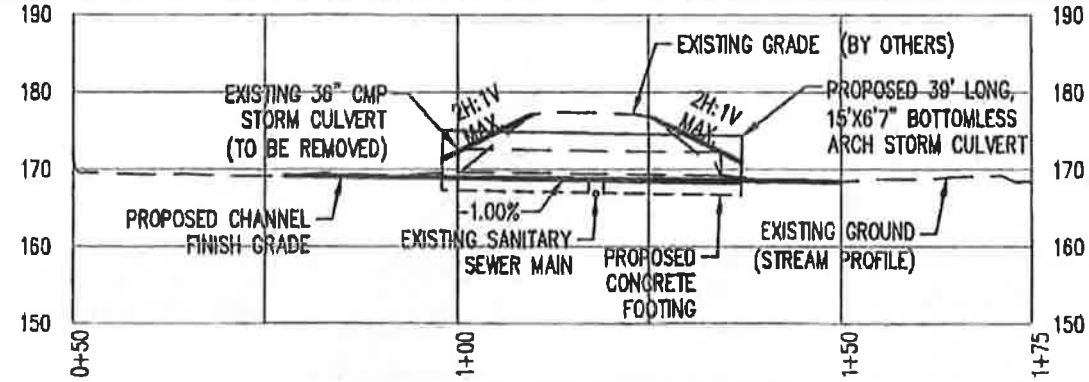
DWG: 3068 CORE-DSL FIGURES 4-6 | EX CON



DATE: 2015-06-08

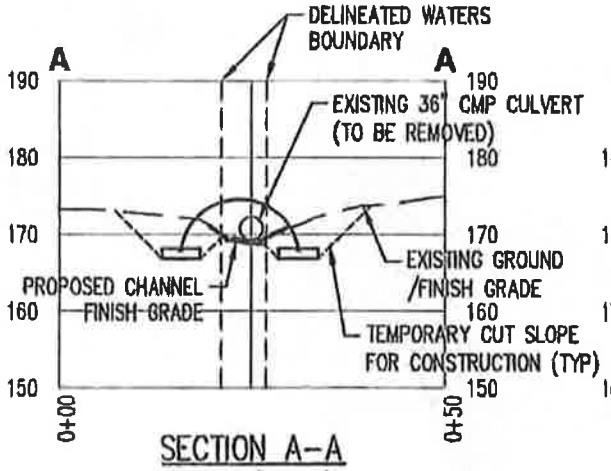
SITE PLAN CITY OF SHERWOOD FISH PASSAGE MITIGATION	FIGURE 5
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 P:503.563.6151 F:503.563.6152 oks-eng.com	DRWN: DS CHKD: PAS AKS JOB: 3068

DWG: 3068 CORE-DSL FIGURES 4-6 | SITE



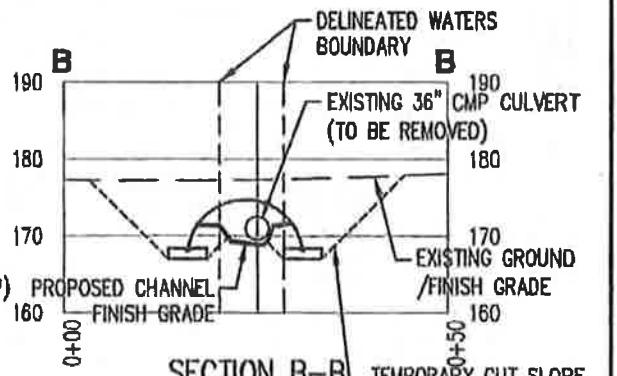
CEDAR CREEK TRIBUTARY PROFILE

SCALE: 1" = 20'



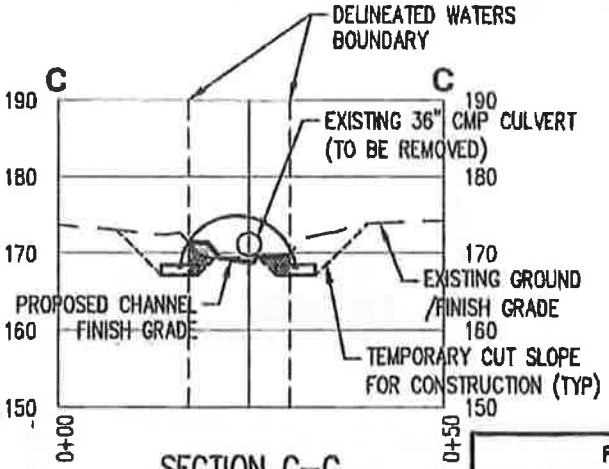
SECTION A–A

SCALE: 1" = 20'



SECTION B–B

SCALE: 1" = 20'



SECTION C–C

SCALE: 1" = 20'

INDICATES PERMANENT WATERS IMPACT

INDICATES TEMPORARY WATER IMPACT DUE TO FOOTING EXCAVATIONS

DATE: 2015-06-08

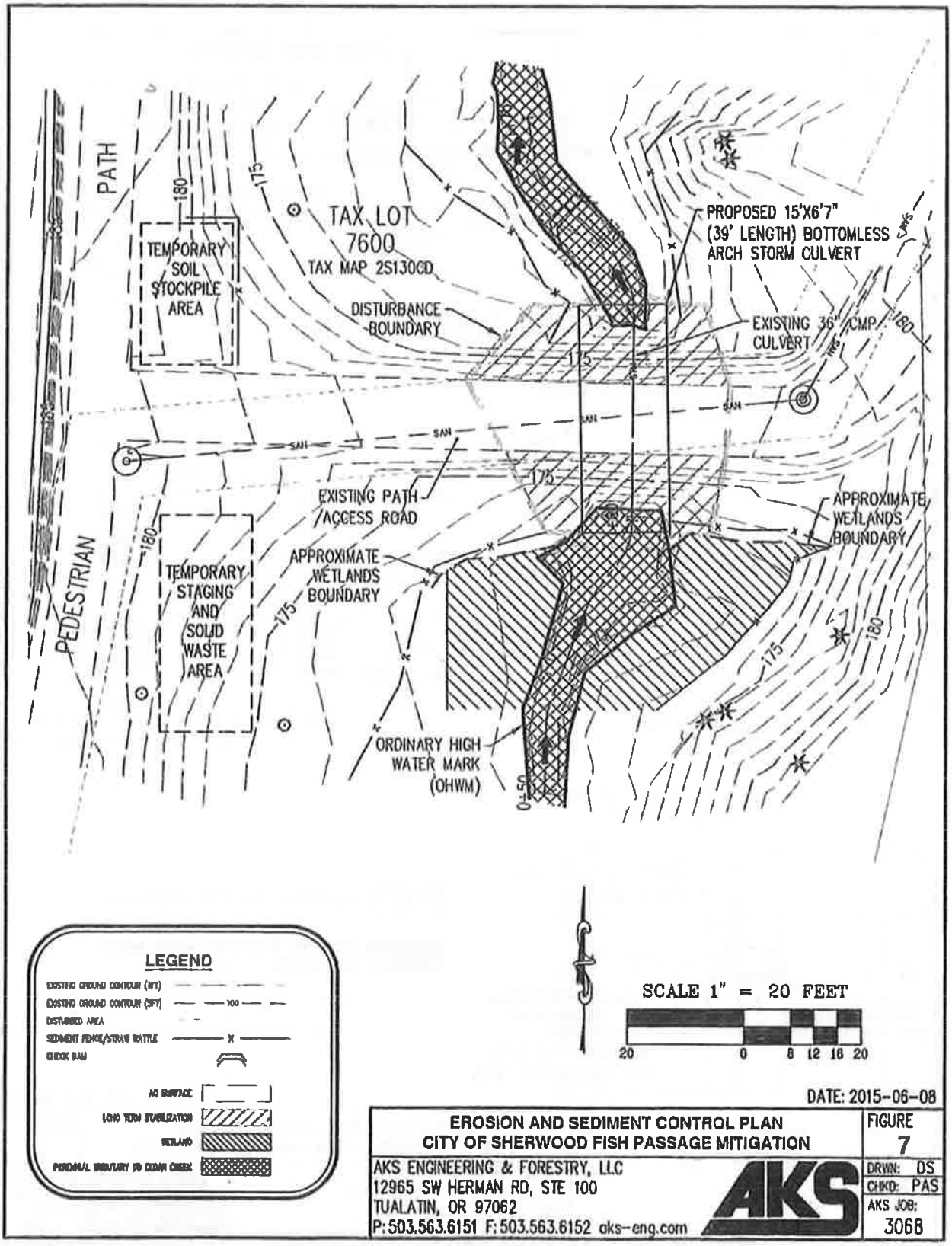
REPRESENTATIVE CROSS-SECTIONS
CITY OF SHERWOOD FISH PASSAGE MITIGATION

FIGURE 6

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
P: 503.563.6151 F: 503.563.6152 aks-eng.com

DRWN: DS
CHKD: PAS
AKS JOB: 3068

DWG: 3068 CORE-DSL FIGURES 4-6 | CROSS SECTIONS



DATE: 2015-06-08

EROSION AND SEDIMENT CONTROL PLAN CITY OF SHERWOOD FISH PASSAGE MITIGATION	FIGURE 7
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 P: 503.563.6151 F: 503.563.6152 aks-eng.com	DRWN: DS CHKD: PAS AKS JOB: 3068

DRG: 3068 CORE-DSL FIGURES 7 | ESC

US Army Corps of Engineers
Portland District

2012 Nationwide (NWP) Regional Permit Conditions Portland District

The following Nationwide Permit (NWP) regional conditions are for the Portland District Regulatory Branch boundary. Regional conditions are placed on NWPs to ensure projects result in less than minimal adverse impacts to the aquatic environment and to address local resource concerns.

ALL NWPs –

1. **High Value Aquatic Resources:** Except for NWPs 3, 20, 27, 32, 38, and 48, any activity that would result in a loss of waters of the United States (U.S.) in a high value aquatic resource is not authorized by NWP. High value aquatic resources in Oregon include bogs, fens, wetlands in dunal systems along the Oregon coast, native eel grass (*Zostera marina)* beds, kelp beds, rocky substrate in tidal waters, marine reserves, marine gardens, vernal pools, alkali wetlands, and Willamette Valley wet prairie wetlands.

   NOTE: There are other types of wetlands in Oregon, such as mature wooded wetlands and tidal swamps, which are also considered as providing high value and functions to the State's aquatic ecosystems. Impacts to these waters will be evaluated on a case-by-case basis for potential authorization under a Nationwide Permit. For more information about the State's Wetlands of Conservation Concern" please visit http://www.oregon.gov/dsl/PERMITS/docs/wetland_cons_concern.pdf.

2. **Cultural Resources and Human Burials-Inadvertent Discovery Plan**: In addition to the requirements in NWP General Conditions 20 and 21 permittee shall immediately notify the Portland District Engineer if at any time during the course of the work authorized, human burials, cultural items, or historic properties, as identified by the National Historic Preservation Act and Native American Graves and Repatriation Act, are discovered. The permittee shall implement the following procedures:

   a. Immediately cease all ground disturbing activities.

   b. Project Located in Oregon: Notify the Oregon State Historic Preservation Office (503-986-0674).

   c. Project Located in Washington: Notify the Washington Department of Archaeology and Historic Preservation (360-586-3077).

   d. Notify the Portland District Engineer. Notification shall be made by fax (503-808-4375) as soon as possible following discovery but in no case later than 24 hours. The fax shall clearly specify the purpose is to report a cultural resource discovery. Follow up the fax notification by contacting the Portland District Engineer representative (by email and telephone) identified in the verification letter.

   e. Failure to stop work immediately and until such time as the Portland District Engineer has coordinated with all appropriate agencies and Native American tribes, and complied with the provisions of 33 CFR 325 (Appendix C), the National Historic Preservation Act, Native American Graves and Repatriation Act, and other pertinent regulations could result in violation of state and federal laws. Violators are subject to civil and criminal penalties.

3. **In-water Work:** In order to minimize potential impacts to water quality, aquatic species and habitat, in-water work will be limited by the following timing considerations:

   a. Permittee shall complete all in-water work within the preferred work window

specified in Oregon Department of Fish and Wildlife's (ODFW) "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources," June 2008, or most current version, available at: http://www.dfw.state.or.us/lands/inwater/Oregon_Guidelines_for_Timing_of_%20InWater_Work2008.pdf.

b. If work cannot be completed within the preferred timing window, despite every attempt to do so, permittee shall submit a request to work out side of the preferred window to the Portland District Engineer in writing. Permittee shall not begin any in-water work outside of the preferred window until they have received written approval from the District Engineer. The District Engineer will coordinate with the appropriate agencies prior to finalizing a decision.

4. **Fish and Aquatic Life passage:** In addition to the requirements of NWP General Conditions 2 and 9, all activities authorized by a NWP shall not restrict passage of aquatic life beyond the necessary construction period. Aquatic life shall be interpreted to include amphibians, reptiles, and mammals whose natural habitat includes waters of the U.S. and which are generally present in and/or around waters of the U.S.

a. Activities such as the installation of culvert, intake structures, diversion structures, or other modifications to stream channel morphology must conform to fish passage standards developed by the ODFW and the National Marine Fisheries Service (NMFS). ODFW's standards can be found at OAR 635-412-0035; ODFW provides an overview at http://www.dfw.state.or.us/fish/passage/ and NMFS provides an overview at http://www.nwr.noaa.gov/hydropower/hydropower_northwest/hydropower_in_the_nw.html.

5. **Fish Screening:** The permittee shall ensure that all intake pipes utilize fish screening that complies with standards developed by NMFS and ODFW ("Anadromous Salmonid Passage Facility Design", July 2011). http://www.nwr.noaa.gov/hydropower/hydropower_northwest/hydropower_in_the_nw.html or the most current version.

6. **Work Area Isolation and Dewatering**: Appropriate best management practices shall be implemented to prevent erosion and sediments from entering wetlands or waterways.

a. All in-water work shall be isolated from the active channel or conducted during low seasonal stream flows.

b. Permittee shall provide for fish passage upstream and downstream of the worksite.

c. Cofferdams shall be constructed of non-erosive material, such as concrete jersey barriers, sand and gravel bag dams, or water bladders. Constructing a cofferdam by pushing material from the streambed or sloughing material from the streambanks is not authorized.

d. Sand and gravel bag dams shall be lined with a plastic liner or geotextile fabric to reduce permeability and prevent sediments and/or construction materials from entering the active stream channel.

e. Upstream and downstream flows shall be maintained by routing flows around the construction site with a pump, bypass pipe, or diversion channel.

f. A sediment basin shall be used to settle sediments in return water prior to release back into the waterbody. Settled water shall be returned to the waterbody in such a manner as to avoid erosion of the streambank. Settlement basins shall be placed in uplands.

g. Fish and other aquatic species must be salvaged prior to dewatering. The State of Oregon requires a Scientific Take Permit be obtained to salvage fish and wildlife. Permittee is advised to contact the nearest ODFW office. For further information contact ODFW at http://www.dfw.state.or.us.

7. **Dredging:** For any NWP-authorized activities, including but not limited to NWP 3, 12, 13, 19, 27, 35, 36, 40, and 41 that involve removal of sediment from waters of the U.S. permittee shall ensure that:

a. Any necessary sediment characterization regarding size, composition, and potential contaminants is conducted prior to dredging and the material is suitable for in-water disposal per the Sediment Evaluation Framework for the Pacific Northwest, 2009 (available at: http://www.nwp.usace.army.mil/Missions/Environment/DMM.aspx) or the most current version.

b. The least impactful methodology and activity sequencing is used to ensure impacts to the aquatic system are minimized to the maximum extent practicable. Examples include using a hydraulic, closed-lipped clamshell bucket, toothed clamshell bucket, dragline and/or excavator.

c. Dredged or excavated material is placed where sediment-laden water cannot enter waterways or wetlands in an uncontrolled manner. The discharge associated with the return of sediment-laden water into a water of the U.S. from an upland disposal site requires separate authorization from the District Engineer under NWP 16.

8. **Chemically Treated Wood** – Withdrawn.

9. **Mechanized Equipment:** In addition to the requirements in NWP General Condition 11, permittee shall implement the following to prevent or limit aquatic impacts from mechanized equipment:

a. In all events use the type of equipment that minimizes aquatic impacts spatially and temporally.

b. Use existing roads, paths, and drilling pads where available. Temporarily place mats or pads onto wetlands or tidal flats to provide site access. Temporary mats or pads shall be removed upon completion of the authorized work.

c. Operate equipment from the top of a streambank and conduct work outside of the active stream channel, unless specifically authorized by the District Engineer.

d. Isolate storage, staging, and fueling areas, and operate and maintain equipment in isolation from waters, wetlands, and riparian areas.

e. Maintain spill prevention and containment materials with ready access at vehicle staging areas. Permittee and staff shall be trained to effectively deploy the measures. Spill response materials include straw matting/bales, geotextiles, booms, diapers, and other absorbent materials, shovels, brooms, and containment bags. In the event of a spill of petroleum products or other chemicals with potential to affect waters or wetlands, permittee shall immediately report the spill to the Oregon Emergency Response Service (OERS) at 1-800-452-0311 and shall implement containment and cleanup measures, as directed.

10. **Deleterious Waste:** In addition to the requirements in NWP General Condition 6, permittee shall not dispose of biologically harmful or waste materials into waters or wetlands. These materials include but are not limited to the following:

a. 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.

b. Discharge water created during construction activities (such as but not limited to concrete wash out, pumping for work area isolation, vehicle wash water, drilling fluids, dredging return flows, and sediment laden runoff) shall be treated to remove debris, sediment, petroleum products, metals, and other pollutants and

discharged in a controlled fashion to avoid erosion. A separate Department of the Army permit and/or a National Pollutant Discharge Elimination System (NPDES) permit from Oregon Department of Environmental Quality's (DEQ) may be required prior to discharge. Permittee is directed to contact the nearest DEQ office (http://www.deq.state.or.us/about/locations.htm) for more information about the NPDES program.

11. **Stormwater Discharge Pollution Prevention:** Activities that result in stormwater runoff passing over disturbed areas and impervious surfaces must include reduction measures, controls, treatment techniques and management practices to avoid discharge of soil, debris, toxics and other pollutants to waterways and wetlands.

    a. **Erosion Control:** During construction and until the site is stabilized, the permittee shall ensure all practicable measures are implemented and maintained to prevent erosion and runoff. For proper erosion control measure selection and implementation, the permittee is referred to DEQ "Oregon Sediment and Erosion Control Manual," April 2005, available at: http://www.deq.state.or.us/wq/stormwater/escmanual.htm. Appropriate control measures and maintenance include, but are not limited to the following:

        1) Permittee shall inspect and maintain control measures in good condition throughout construction and until permanent measures are well established. Permittee shall repair or replace any damages such as rips, broken stakes that result in loss of intended function. Permittee shall install additional control measures and reseed or replant with native and/or non-competitive species as necessary to achieve stabilization of the site. Spray-on mulches imbedded with benign sterile species may be used to temporarily stabilize the area until permanent controls are in place.

        2) Once soils or slopes have been stabilized, permittee shall completely remove and properly dispose of or re-use all components of installed control measures.

    b. **Post-Construction Stormwater Management:** If the activity will result in creation of new impervious surfaces and federally listed aquatic species or their habitat may be affected by the proposed activity permittee shall forward a copy of the post-construction stormwater management plan (SWMP) to the Portland District Engineer for our consultation under the Endangered Species Act. A copy of the SWMP must be submitted to the DEQ for their review and approval prior to initiating construction.

        1) Submittal of the post-construction stormwater management plan to DEQ at the same time the application is submitted to the Corps will streamline the project review. DEQ's Stormwater Management Plan Submission Guidelines for Removal/Fill Permit Applications which involve impervious surfaces can be found at http://www.deq.state.or.us/wq/sec401cert/docs/stormwaterGuidlines.pdf. This document provides information to determine the level of detail required for the plan based on project type, scope, location, and other factors, as well as references to assist in designing the plan and a checklist for a complete submission.

12. **Upland Disposal:** Material disposed of in uplands shall be placed in a location and manner that prevents discharge of the material and/or return water into waters or wetlands unless otherwise authorized by the Portland District Engineer.

    a. Final disposition of materials removed from waters and wetlands to uplands may require separate approvals under Oregon State Solid Waste Rules. For more information please visit DEQ's Solid Waste

program at:
http://www.deq.state.or.us/lq/sw/index.htm

b. Temporary upland stockpiles of excavated or dredged materials shall be isolated from waterways, wetlands, and floodwaters; stabilized prior to wet weather; and maintained using best management practices unless specifically authorized by the District Engineer.

13. **Restoration of Temporary Impacts:** To minimize temporal losses of waters of the U.S. construction activities within areas identified as temporary impacts shall not exceed two construction seasons or 24 months, whichever is less. For all temporary impacts, permittee shall provide the Portland District Engineer a description, photos, and any other documentation which demonstrates pre-project conditions with the Preconstruction Notification.

    b. Site restoration of temporarily disturbed areas shall include returning the area to pre-project ground surface contours. Permittee shall revegetate temporarily disturbed areas with native, noninvasive herbs, shrubs, and tree species sufficient in number, spacing, and diversity to replace affected aquatic functions.

    c. Site restoration shall be completed within 24 months of the initiation of impacts (unless otherwise required by the specific NWP). However, if the temporary impact requires only one construction season, site restoration shall be completed within that same construction season before the onset of seasonal rains.

14. **Permittee-responsible Compensatory Mitigation:** When permittee-responsible compensatory mitigation is required by the Portland District Engineer to replace lost or adversely affected aquatic functions, the permittee shall provide long-term protection for the mitigation site through real estate instruments (e.g., deed restriction or conservation easement) or other available mechanisms. The appropriate long-term protection mechanism will be determined by the Portland District Engineer based on project-specific review and must be in place prior to initiating the permitted activity.

15. **Inspection of the Project Site:** The permittee shall allow representatives of the Portland District Engineer and/or DEQ to inspect the authorized activity to confirm compliance with nationwide permit terms and conditions. A request for access to the site will normally be made sufficiently in advance to allow a property owner or representative to be on site with the agency representative making the inspection.

16. **Sale of Property/Transfer of Permit:** Permittee shall obtain the signature(s) of the new owner(s) and transfer this permit in the event the permittee sells the property associated with this permit. To validate the transfer of this permit authorization, a copy of this permit with the new owner(s) signature shall be sent to the Portland District Engineer at the letterhead address on the verification letter.

NATIONWIDE SPECIFIC CONDITIONS:

NWP 3 – Maintenance

1. Permittee shall implement measures necessary to prevent streambed gradient alterations and streambank erosion.

NWP 5 – Scientific Measurement Devices

1. Permittee shall remove all scientific measurement devices including all associated structures and fills including anchoring devices, buoys, and cable within 30 days after research is completed.

NWP 6 – Survey Activities

1. Use of in-water explosives is not authorized.

2. Permittee shall isolate all in-stream exploratory trenching from the active channel.

NWP 12 – Utility Line Activities

1. Permittee shall install trench-blockers of a type and design sufficient to prevent the drainage of the wetland areas (e.g. bentonite clay plugs, compacted sand

bags, etc.) where utility lines are buried within or immediately adjacent to wetlands and other waters.

2. Permittee shall remove and separately reserve the topsoil from the subsurface soils during trenching. Permittee shall place the reserved topsoil as the final surface layer in backfilling the trench.

3. Agency coordination, per Nationwide Permit General Condition 31 (d), is required where utility lines are proposed in estuaries to ensure there are no impacts to native shellfish beds.

4. Manholes placed in streams or other waterways require specific approval by the District Engineer.

NWP 13 – Bank Stabilization

1. Permittee shall include the use of bioengineering techniques and natural products (e.g. vegetation and organic material such as root wads) in the project design to the maximum extent practicable and shall minimize the use of rock, except when it is anchoring large woody debris. Non-biodegradable materials, such as plastic netting, that may entrap wildlife or pose a safety concern shall not be used for soil stabilization. Riparian plantings shall be included in all project designs unless the permittee can demonstrate that such plantings are not practicable.

2. Riprap shall be clean (i.e. free of toxic contaminants and invasive species), durable, angular rock.

NWP 23 – Approved Categorical Exclusions

1. Pre-construction notification or other Corps-approved documentation is required for all activities which require a permit from the Portland District Engineer.

NWP 29 – Residential Developments

1. Wetland impacts associated with the construction or expansion of a single residence including attendant features (utility lines, roads, yards, etc) shall not exceed one-fourth (¼) acre.

NWP 41 – Reshaping Existing Drainage Ditches

1. All in-water work shall be isolated from the active stream channel or conducted during low seasonal stream flows.

NWP 43 – Stormwater Management Facilities

1. All in-water work shall be isolated from the active stream channel or conducted during low seasonal stream flows.

2. This NWP does not authorize the retention of water in excess of that required to meet stormwater management requirements for purposes such as recreational lakes, reflecting pools, irrigation, etc.

NWP 44 – Mining Activities

1. Reclamation, when required, must be achieved within 24 months of completing the mining activity.

2. In-stream mining including bar scalping is not authorized by this NWP.

3. Permittee shall ensure site includes appropriate grade controls to prevent headcutting of streams or bank erosion.

4. The use of in-water explosives is prohibited under this nationwide.

5. Excavated materials may be temporarily stockpiled within the channel above the plane of the water surface for up to seven (7) days. Excavated materials shall not be stockpiled in wetlands or flowing water.

NWP 48 – Commercial Shellfish Aquaculture Activities

1. Agency coordination, per NWP General Condition 31 (d), is required for all activities proposed under this NWP.

NOTE: For projects involving commercial aquaculture or mariculture cultivation of oysters, clams, and mussels on state submerged and submersible lands permittee is advised authorization may be required from the Oregon Department of Agriculture. For more information go to

http://www.oregon.gov/ODA/FSD/program_shellfish.shtml

NWP 51– Land-Based Renewable Energy Generation Facilities

1. Agency coordination, per NWP General Condition 31 (d), is required for activities where aerial power transmission lines cross navigable waters.

NWP 52 – Water Based Renewable Energy Generation Pilot Projects

1. Agency coordination, per NWP General Condition 31 (d), is required for all activities proposed for verification under this NWP.

2. Activities authorized under this NWP shall comply with the siting requirements of the Oregon Territorial Sea Plan, which designates areas as suitable for such activities. For more information go to http://www.oregon.gov/LCD/OCMP/Pages/Ocean_TSP.aspx.

C. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR §§ 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR § 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation
(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species.
(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

20. Historic Properties.
(a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. If you discover any previously unknown historic, cultural or archeological remains and artifacts while

accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan.

A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

31. Pre-Construction Notification.
(a) Timing. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;

(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

(7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

(d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

(2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43,

44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

F. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of "open waters" include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower

stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment,

riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a jurisdictional water of the United States. If a jurisdictional wetland is adjacent – meaning bordering, contiguous, or neighboring – to a waterbody determined to be a water of the United States under 33 CFR 328.3(a)(1)-(6), that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

State of Oregon
Department of
Environmental
Quality

Oregon Department of Environmental Quality (DEQ) 401 Water Quality (WQC) General Conditions

In addition to all USACE permit conditions and regional permit conditions, the following 401 Water Quality Certification conditions apply to all Nationwide Permit (NWP) categories certified or partially certified Additional 401 Water Quality Certification category specific conditions follow, which must also be complied with as applicable.

1) Turbidity: All Permittees must implement all reasonably availably technological controls and management practices to meet the standard rule of no more than a 10 percent increase in project caused turbidity above background levels. However, if all reasonably available controls and practices are implemented by a permittee, turbidity exceedances of more than 10 percent above background are allowed for limited times depending on the severity of the increase, as specified in this condition.

a. **Monitoring and Compliance Requirements:** Permittee must monitor and record in a daily log stream turbidity levels during work below ordinary high water, compare turbidity caused by authorization actions to background levels, and adapt activities to minimize project-caused turbidity. Required monitoring steps include:

i. Identify two monitoring locations:

A. Background location: A relatively undisturbed location, approximately 100 feet upcurrent from the disturbing activity; and,

B. Compliance location: A location downcurrent from the disturbing activity, at approximately mid-depth, within any visible plume, at the distance that corresponds to the size of the waterbody where work is taking place as listed on the table below:

WETTED STREAM WIDTH	COMPLIANCE DISTANCE
Up to 30 feet	50 feet
>30 feet to 100 feet	100 feet
>100 feet to 200 feet	200 feet
>200 feet	300 feet
LAKE, POND RESERVOIR	Lesser of 100 feet or Maximum surface dimension

ii. Determine Compliance:

A. At the start of work, measure turbidity at both locations and record in the daily log date, time, location, tidal stage (if waterbody is tidally influenced), and turbidity levels at each point and comparison. Permittee must also record in the daily log all controls and practices implemented at the start of the work.

B. During work, measure turbidity at both locations at the frequency directed in the tables below and record in the daily log date, time, location, tidal stage (if waterbody is tidally influenced), and turbidity measurements.

C. Turbidity measurements must be representative of stream turbidity when the activity is being conducted. Measurements cannot be taken during a cessation of activity.

D. If project caused turbidity is elevated above background, Permittee must implement additional controls and practices and monitor both points again as described below for either monitoring method. A description of the additional controls and the date, time, and location where they are implemented must be recorded in the daily log:

MONITORING WITH A TURBIDIMETER*		
ALLOWABLE EXCEEDANCE TURBIDITY LEVEL	ACTION REQUIRED AT 1ST MONITORING INERNAL	ACTION REQUIRED AT 2ND MONITORING INTERNAL
0 to 5 NTU above background	Continue to monitor every 4 hours	Continue to monitor every 4 hours
5 to 29 NTU above background	Modify controls & continue to Monitor every 4 hours	Stop work after 8 hours at 5-29 NTU above background
30 to 49 NTU above Background	Modify controls & continue to Monitor every 2 hours	Stop work after 2 confirmed hours At 30-49 NTU above background
50 NTU or more above Background	Stop work	Stop work

VISUAL MONITORING*		
No plume observed	Continue to monitor every 4 hours	Continue to monitor every 4 hours
Plume observed within compliance distance	Modify controls & continue to Monitor every 4 hours	Stop work after 8 hours with an observed plume within compliance distance
Plume observed beyond compliance distance	Stop work	Stop work
**Note: Monitoring visually may require stopping work as soon as the visual plume exceeds the waterbody specific compliance distance. However, using a turbidimeter can allow work to continue based on more precise determination of the severity of the turbidity increase over time.*		

iii. Work must **stop immediately for the remainder of the 24-hour period** if:

A. A visible turbidity plume extends beyond the compliance distance; or,

B. Turbidity is measured at the compliance point at:

I. 50 NTU or more over background at any time;
II. 30 NTU over background for 2 hours; or
III. 5-29 NTU over background for 8 hours.

iv. Work may continue if no visible plume is observed, turbidity measured at the compliance point is no more than 0-5 NTU above background, or additional control measures can be applied to keep the visible plume within the compliance distance, measured turbidity ranges, and durations listed in the tables above.

b. Turbidity Control Measures - The permittee must implement all reasonably available controls and practices to minimize turbidity during in-water work, which may include, but are not limited to:

i. Schedule, sequence or phase work activities so as to minimize in-water disturbance and duration of activities below ordinary high water;

ii. Install and maintain containment measures to prevent erosion of upland material to waterways and wetlands, isolate work areas from flowing waters, and prevent suspension of in-stream sediments to the maximum extent practicable;

iii. Apply control measures for all in-stream digging, including but not limited to: 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 loads or hydraulic suction equipment; or by using a closed-lipped environmental bucket;

iv. Limit the number and location of stream crossing events. If equipment must cross a waterway, establish temporary crossing sites at an area with stable banks, where the least vegetation disturbance will occur, shortest distance across water, oriented perpendicular to the stream, and supplement with clean gravel or other temporary methods as appropriate;

v. Place excavated, disturbed, and stockpiled material so that it is isolated from the edge of waterways and wetlands and not allowed to enter waters of the state uncontrolled; and

vi. Apply other effective turbidity control techniques, such as those in Appendix D and throughout DEQ's *Oregon Sediment and Erosion Control Manual*, April 2005, http://www.deq.state.or.us/wq/stormwater/docs/escmanual/appxd.pdf.

c. Reporting: Copies of daily logs for turbidity monitoring must be made available to DEQ and other regulatory agencies upon request. The log must include:

i. Background NTUs or observation, compliance point NTUs or observation, comparison of the points in NTUs or narrative, and location, time, date, and tidal stage (if applicable) for each reading or observation.

ii. A narrative discussing all exceedances, controls applied and their effectiveness, subsequent monitoring, work stoppages, and any other actions taken.

2) Stormwater Discharge Pollution Prevention: All projects that involve land disturbance or impervious surfaces must implement prevention or control measures to avoid discharge of pollutants in stormwater runoff to waters of the state.

a. For land disturbances during construction, the permittee must obtain and implement permits where required (see: http://www.deq.state.or.us/wq/stormwater/construction.htm) and follow DEQ's *Oregon Sediment and Erosion Control Manual*, April 2005 (or most current version), http://www.deq.state.or.us/wq/stormwater/docs/escmanual/appxd.pdf.

b. Following construction, prevention or treatment of on-going stormwater runoff from impervious surfaces must be provided (including but not limited to NWP categories 3, 12, 14, 15, 28, 29, 31, 32, 36, 39, 42, 43, and 51). DEQ encourages prevention of discharge by managing stormwater on site through Low Impact Development principles and other prevention techniques. Assistance in developing an approvable stormwater management plan is available in DEQ's *Stormwater Management Plan Submission Guidelines for Removal/Fill Permit Applications Which Involve Impervious Surfaces*, January 2012 (or most current version), available at: http://www.deq.state.or.us/wq/sec401cert/docs/stormwaterGuidlines.pdf.

c. In lieu of a complete stormwater management plan, the applicant may submit:

i. Documentation of acceptance of the stormwater into a DEQ permitted National Pollutant Discharge Elimination Strategy (NPDES) Phase I or II Municipal Separate Storm Sewer System (MS4); or

ii. Reference to implementation of a programmatic process developed to achieve these expectations, and acknowledged by DEQ as adequately addressing pollution control or reduction through basin-wide post-construction stormwater management practices.

3) Vegetation Protection and Restoration: Riparian, wetland, and in-water vegetation in the authorized project area must be protected from unnecessary disturbance to the maximum extent practicable through methods including:

a. Minimization of project and impact footprint;

b. Designation of staging areas and access points in open, upland areas;

c. Fencing or other barriers demarking construction areas;

d. Use of alternative equipment (e.g., spider hoe or crane); and,

e. Replacement - If authorized work results in unavoidable vegetative disturbance that has not been accounted for in planned mitigation actions; riparian, wetland and in-water vegetation must be successfully reestablished to a degree that it functions (for water quality purposes) at least as well as it did before the disturbance. The vegetation must be reestablished by the completion of authorized work.

4) Land Use Compatibility Statement: In accordance with OAR 340-048-0020(2) (i), each permittee must submit findings prepared by the local land use jurisdiction that demonstrates the activity's compliance with the local comprehensive plan. Such findings can be submitted using Block 7 of the USACE & DSL Joint Permit Application, signed by the appropriate local official and indicating:

a. "This project is consistent with the comprehensive plan and land use regulations;" or,

b. "This project will be consistent with the comprehensive plan and land use regulations when the following local approvals are obtained," accompanied by the obtained local approvals.

c. Rarely, such as for federal projects on federal land, "this project is not regulated by the comprehensive plan" will be acceptable.

5) A copy of all applicable 401 WQC conditions must be kept on the job site and readily available for reference by the permittee, their contractors, DEQ, USACE, NMFS, USFWS, DSL, ODFW, and other appropriate state and local government inspectors.

6) DEQ may modify or revoke these 401 WQC conditions, in accordance with OAR 340-048-0050, in the event that project activities are having a significant adverse impact on state water quality or beneficial uses.

Category Specific Conditions

In addition to all national and regional conditions of the USACE permit and the 401 Water Quality Certification general conditions above, the following conditions apply to the noted specific categories of authorized activities.

NWP 7 – Outfall Structures and Associated Intake Structures:

7.1) The following actions are denied certification:

a. Discharge outfalls that are not subject to an NPDES permit; and,

b. Outfalls that discharge stormwater without pollutant removal demonstrated to meet water quality standards prior to discharge to waters of the state.

7.2) If a permittee cannot obtain an NPDES permit or submit an approvable stormwater management plan per DEQ's Guidelines (at: http://www.deq.state.or.us/wq/sec401cert/docs/stormwaterGuidlines.pdf), the permittee must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 12 – Utility Lines:

12. 1) For proposals that include directionally-bored stream or wetland crossings:

a. All drilling equipment, drill recovery and recycling pits, and any waste or spoil produced, must be completely isolated, recovered, then recycled or disposed of to prevent entry into waters of the state. Recycling using a tank instead of drill recovery/recycling pits is preferable;

b. In the event that drilling fluids enter a water of the state, the equipment operator must stop work, immediately initiate containment measures and report the spill to the Oregon Emergency Response System (OERS) at 800-452-0311.

c. Prior to cleaning up drilling fluids spilled into waters of the state, cleanup plans must be submitted and approved by the regulatory agencies; and

d. An adequate supply of materials needed to control erosion and to contain drilling fluids must be maintained at the project construction site and deployed as necessary.

NWP 13 – Bank Stabilization:

13.1) Projects that do not include bioengineering are denied certification, unless a registered professional engineer provides a written statement that non-bioengineered solutions are the only means to protect an existing transportation-related structure.

13.2) To apply for certification for a project without bioengineering, the permittee must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 14 – Linear Transportation:

14.1) For projects that include bank stabilization, bioengineering must be a component of the project, unless a registered professional engineer provides a written statement that non-bioengineered solutions are the only means to protect an existing transportation related structure.

14.2) To apply for certification for a project without bioengineering, the permittee must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 16 - Return Water from Contained Upland Disposal Areas: Water quality criteria and guidance values for toxics, per OAR 340-041-0033, are available in Tables 20, 33A, 33B, and 33C at: http://www.deq.state.or.us/wq/standards/toxics.htm#Cur.

16.1) Return to waters of the state of water removed with contaminated dredged material that exceeds a chronic or acute toxicity water quality standard is denied certification.

16.2 Water removed with contaminated dredged material that could or does exceed chronic water quality criteria must be contained and disposed of at an appropriately sized and sealed upland facility by evaporation or infiltration.

16.3) If a Modified Elutriate Test (MET) is performed for the known contaminants of concern (CoCs) and CoC concentrations are below DEQ chronic water quality criteria, return water discharge is not limited.

a. The MET must be performed before dredging.

b. DEQ must approve the list of CoCs and analytical method prior to the permittee performing the MET.

c. DEQ must review the results and provide approval of discharge from return water, in writing, prior to dredging.

NWP 20 – Response Operations for Oil and Hazardous Waste:

20.1) Coordination with DEQ's Emergency Response program is required. See: http://www.deq.state.or.us/lq/cu/emergency/index.htm.

NWP 22 – Removal of Vessels:

22.1) Coordination with DEQ's Emergency Response program is required. See: http://www.deq.state.or.us/lq/cu/emergency/index.htm.

NWP 31 – Maintenance of Existing Flood Control Facilities:

31.1) Projects at existing facilities in streams with Temperature TMDLs and that propose net permanent, riparian vegetation removal are denied certification.

31.2) To apply for certification for projects where riparian vegetation removal is unavoidable and vegetation cannot be re-established, the permittee must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 38 – Cleanup of Hazardous and Toxic Waste:

38.1) For removal of contaminated material from waters, dredging method is limited to diver assisted hydraulic suction, hydraulic suction, closed-lipped environmental bucket, or excavation in the dry.

a. For in-water isolation measures, the permittee is referred to Appendix D of DEQ's *Oregon Erosion and Sediment Control Manual*, April 2005 (or most current version), at: http://www.deq.state.or.us/wq/stormwater/docs/escmanual/appxd.pdf.

38.2) Discharge to waters resulting from dewatering during dredging or release of return water from an upland facility is prohibited except as provided below.

a. All water removed with sediment must be contained and disposed of at an appropriately sized and sealed upland facility by evaporation or infiltration; or,

b. A Modified Elutriate Test (MET) may be performed for the known CoCs and if CoC concentrations are below DEQ chronic water quality criteria, return water discharge is not limited.

i. The MET must be performed before dredging.

ii. DEQ must approve the list of CoCs and analytical method prior to the permittee performing the MET.

iii. DEQ must review the results and provide approval of discharge from dewatering and return water in writing prior to dredging.

38.3) Dredged material must be disposed of in compliance with DEQ Rules governing Hazardous Waste (see: http://www.deq.state.or.us/lq/hw/hwmanagement.htm) or Solid Waste (see: http://www.deq.state.or.us/lq/sw/index.htm).

38.4) The new in-water surface must be managed to prevent exposure or mobilization of contaminants.

NWP 41 - Reshaping Existing Drainage Ditches:

41.1) To the extent practicable, permittees must work from only one bank in order to minimize disturbance to existing vegetation, preferably the bank with the least existing vegetation;

41.2) Following authorized work, permittee must establish in-stream and riparian vegetation on reshaped channels and side-channels using native plant species wherever practicable. Plantings must be targeted to address water quality improvement (e.g., provide shade to water to reduce temperature or provide bank stability through root systems to limit sediment inputs). Planting options may include clustering or vegetating only one side of a channel, preferably the side which provides maximum shade.

NWP 42 – Recreational Facilities:

42.1) For facilities that include turf maintenance actions, the permittee must develop and implement an Integrated Pest Management Plan (IPM) that describes pest prevention, monitoring and control techniques with a focus on prevention of chemical and nutrient inputs to waters of the state, including maintenance of adequate buffers for pesticide application near salmonid streams, or coverage under an NPDES permit, if required (information is available at: http://www.deq.state.or.us/wq/wqpermit/pesticides.htm).

NWP 43 – Stormwater Management Facilities:

43.1) Projects that propose the following elements are denied certification:

a. In-stream stormwater facilities;

b. Discharge outfalls not subject to an NPDES permit; and,

c. Proposals that do not demonstrate pollutant removal to meet water quality standards prior to discharge to waters of the state.

43.2) To apply for certification for a project with in-stream stormwater facilities, without an NPDES permit, or without submittal of an approvable stormwater management plan per DEQ's Guidelines (at: http://www.deq.state.or.us/wq/sec401cert/docs/stormwaterGuidlines.pdf), the permittee must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 44 – Mining Activities:

44.1) Projects that do not obtain an NPDES 700-PM or Individual permit are denied certification.

44.2) To apply for certification for a project without an NPDES permit, the permittee must submit complete project information and water quality impacts analysis directly to DEQ in order to undergo individual 401 WQC evaluation and fulfill public participation requirements.

NWP 51 – Land-Based Renewable Energy Generation Facilities:

51.1) For associated utility lines with directionally-bored stream or wetland crossings proposed, condition 12.1) must be applied.

DEPARTMENT OF THE ARMY
Corps of Engineers, Portland District
Regulatory Branch

Inadvertent Discovery Plan (IDP)

Background

Traditionally, Tribes have managed the lands in Oregon for thousands of years. Although these lands are now broken up into segments of various ownerships and managing agencies, Native Americans still retain a strong connection to their ancestral lands. For Oregon Tribes, archaeological/burial sites are not simply artifacts of the tribe's cultural past, but are considered sacred and represent a continuing connection with their ancestors. Native American ancestral remains, funerary objects, sacred objects, and objects of cultural patrimony associated with Oregon Tribes are protected under state and federal law. These laws recognize and codify the Tribes' rights in the decision-making process regarding ancestral remains and associated objects. Therefore, both the discovered ancestral remains and/or archaeological objects should be treated in a sensitive and respectful manner by all parties involved.

It is the policy of the Corps Regulatory program to work effectively with Native American Tribes, landowners, resource agencies, historic preservation organizations, stakeholders, applicants and the public to comply with the National Historic Preservation Act (NHPA) and other applicable laws and regulations, Executive Orders, Presidential Memoranda, and policy guidance documents and to efficiently process permit applications so that development projects can proceed for the good of the Nation's economic health and national security. Respectful and meaningful coordination and consultations between the Corps, Native American Tribes, the Oregon State Historic Preservation Office (SHPO), and Washington State Department of Archaeology & Historic Preservation (DAHP) are conducted as we strive to balance economic needs with historic preservation concerns.

This IDP ensures all parties involved during inadvertent discovery of cultural materials are contacted and fulfill their obligation under state and federal laws, including but not limited to the following:

National Historic Preservation Act (NHPA) – **[16 USC 470] [36 CFR 60]**
Native American Graves Protection and Repatriation Act – **[25 USC 3001] [43 CFR 10]**
Indian Graves and Protection Objects – **ORS 97.740-S 97.760**
Archaeological Objects and Sites – **ORS 358.905 – 358.955**
Permits and Conditions for Excavation or Removal of Archaeological or Historical Material; Rules; Criminal Penalty—ORS 390.235
Procedures for the Protection of Historic Properties – **[33 CFR 325 – Appendix C]**
Consultation and Coordination with Indian Tribal Governments – **[Executive Order – 13175]**

Suspend Work

Cultural Resources and Human Burials: In the event evidence of human burials, human remains, cultural items, suspected cultural items, or historic properties, as identified by the NHPA, are discovered and/or may be affected during the course of the work authorized, the Permittee shall **Immediately Cease All Ground Disturbing Activities**.

Failure to stop work immediately and until such time as the Corps has coordinated with all appropriate agencies and complied with the provisions of 33 CFR 325, Appendix C, the NHPA and other pertinent regulations, could result in violation of state and federal laws. Violators are subject to civil and criminal penalties.

Notification Process for Permittee and/or Archaeological Monitor

The person(s) making the discovery shall immediately notify the permittee(s), the Corps of Engineers, and other appropriate agencies as necessary.

- Notification to the Portland District Regulatory Branch shall be made by fax (503-808-4375) as soon as possible following discovery but in no case later than 24 hours or via email to christopher.m.page@usace.army.mil, (503) 808-4389. The fax shall clearly specify the purpose is to report a cultural resource discovery, provide the Permittee's name, Corps Permit No., and the archaeological monitor's contact information for follow-up purposes.
- Follow up the fax notification with an email and phone call to the Corps of Engineers Project Manager identified in the permit letter.

Notification Process for Corps Project Manager

The Project Manager or person(s) designated to manage the inadvertent discovery shall immediately notify the following agencies:

- Oregon State Historic Preservation Office:
  Dr. Dennis Griffin, office phone (503) 986-0674, cell (503) 881-5038.
- Washington Department of Archaeology and Historic Preservation:
  Greg Griffith, office phone (360) 586-3073.
- Oregon State Police **[if human remains are found]**:
  Sergeant Chris Allori, office phone (503) 731- 4717 cell (503) 708-6461.
  - Commission on Indian Services (CIS) [provide the list of appropriate Native American Tribes], Karen Quigley, Director, office phone (503) 986-1067.

Tribes:

- Confederated Tribes of the Grand Ronde Community of Oregon:
  David Harrelson (503) 879-2320; Dustin Kenney (503) 879-1679; or Misty Thorsgard (503) 879-2320
- Confederated Tribes of the Warm Springs Reservation of Oregon:
  Holly Shea (541) 553-3555
- Confederated Tribes of the Siletz Reservation, Oregon:
  Robert Kentta (800-922-1399 xtn. 1244
- Confederated Tribes of the Umatilla Reservation, Oregon:
  Teara Farrow (541) 276-3629; or Catherine Dickson (541) 429-7231.
- Cow Creek Band of Umpqua Tribe of Indians:
  Jessie Plueard (541) 677-5575 ext. 5577
- Coquille Tribe of Oregon:
  Kassandra Ripee (541) 756-0904 ext 10216
- Klamath Tribes, Oregon:
  Perry Chocktoot (541) 783-2210 ext. 178

- Confederated Tribes of Coos Lower Umpqua and Siuslaw Indians of Oregon:
  Stacy Scott (541) 888-7513 cell (541) 297-5543
- Fort Bidwell Indians Community of the Fort Bidwell Reservation of California:
  Bernard Pollard (530) 279-6310.
- Smith River Rancheria, California:
  Suntayea Steinruck (707) 487-9255 ext. 3180
- Burns Paiute Tribe of the Burns Paiute Indian Colony of Oregon:
  Diane Teeman (541) 573-8090 cell (541) 413-1190
- Nez Perce Tribe of Idaho:
  Patrick Baird (208) 621-3851
- Confederated Tribes and Bands of the Yakama Nation, Washington:
  Johnson Meninick (509) 865-5121
- Cowlitz Indian Tribe, Washington:
  Dave Burlingame, (360) 577-6962

The Corps 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 Registry of Historic Places. In addition, the Corps will coordinate a Site Avoidance Plan (SAP) and/or a Scope of Work (SOW) with the SHPO/DAHP, the Tribe(s) and the permittee to avoid or excavate the archaeological/burial site. In the event the Corps decides to delegate their cultural resource protection responsibilities to another federal or state agency, the Corps shall contact the interested parties and provide those parties with the appropriate new contact person(s).

Plan of Action (POA)

In the event human burials, human remains, cultural items, suspected cultural items, or historic properties, as identified by the NHPA, are discovered and/or may be affected during the course of the work authorized, the archaeological monitor, and/or designee, has the authority to temporarily stop all ground disturbance activities to further inspect the material(s). If an isolated artifact (defined as fewer than 10 artifacts by the Oregon SHPO) is identified, the monitor shall determine whether sufficient quantities and/or evidence of artifacts warrant presence to define a site. If upon closer examination the materials discovered are not consistent with human burials, human remains, cultural items, suspected cultural items, or historic properties, as identified by the NHPA, the monitor will allow work to proceed but with caution and at a slower rate until the monitor is confident no sites are represented.

Upon positive identification of human burials, human remains, cultural items, suspected cultural items, or historic properties, as identified by the NHPA, the monitor will maintain the cease work order, make efforts to secure the discovery location, and immediately notify the permittee and/or designee of the positive discovery as defined in the notification process above. Examples of cultural material that constitutes such sites but is not limited to the following: 1) historic sites can include glass bottles, cans, building foundations; and 2) prehistoric sites include lithic flakes, shell, beads, ovens, etc.

Human Remains POA

If human burials and/or human remains are discovered, the monitor will treat the remains with sensitivity and respect, ensure all unauthorized personnel have vacated the site location in a safe manner, make reasonable efforts to secure the location, and stabilize the remains if necessary, e.g. they are endangered of falling out a trench wall. Every reasonable effort will be made by the monitor(s) to ensure the remains are not physically handled or examined by

unauthorized personnel until the proper notifications have been made. Reference is made to the Tribal Position Paper on Human Remains found on SHPO's website at: http://www.oregon.gov/OPRD/HCD/ARCH/docs/Tribal_position_paper_on_Human_Remains.pdf.

Treatment Plan (TP)

A treatment plan (TP) will be developed between the Corps, SHPO/DAHP, Tribe(s) and the Permittee during consultation to ensure the proper handling and curation of human remains and/or cultural items is clearly outlined and agreed upon. The TP will define the items found; develop a strategy for handling/moving human remains and/or cultural items; develop a strategy for determining whether additional human remains and/or cultural items are endangered; determine if additional testing is necessary to identify site boundaries; and determine the disposition of the human remains and/or cultural items. The TP will be agreed upon by all parties involved before any future ground disturbance activities resume.

Construction related activities and/or ground disturbance activities shall not resume until authorization from the Corps has been received.

This plan was developed to ensure the safeguarding of our Nation's heritage through inadvertent discovery, and to ensure the Corps' Tribal-Trust responsibilities are met with Diligence, Responsiveness, Reliability, Accuracy, and Respect to our fellow government agencies.

Endangered Species Act – Section 7 Programmatic Consultation
Conference and Biological Opinion
and
Magnuson-Stevens Fishery Conservation and Management Act
Essential Fish Habitat Response

for

Revisions to Standard Local Operating Procedures for Endangered Species to Administer Stream Restoration and Fish Passage Improvement Activities Authorized or Carried Out by the U.S. Army Corps of Engineers in the Oregon (SLOPES V Restoration)

NMFS Consultation No.: NWR-2013-9717

Action Agency: U.S. Army Corps of Engineers,
Portland District, Operations and Regulatory Branches

Affected Species and Determinations:

ESA-Listed Species	ESA Status	Is the action likely to adversely affect this species or its critical habitat?	Is the action likely to jeopardize this species?	Is the 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	No*
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	No	No	No
Eulachon	T	Yes	No	No
Southern resident killer whale	T	No	No	N/A
Steller sea lion	T	No	No	N/A

*Critical habitat has been proposed for LCR coho salmon.

Fishery Management Plan that Describes EFH in the Action Area	Would the action adversely affect EFH?	Are EFH conservation recommendations provided?
Coastal Pelagic Species	Yes	Yes
Pacific Coast Groundfish	Yes	Yes
Pacific Coast Salmon	Yes	Yes

Consultation Conducted By: National Marine Fisheries Service Northwest Region

Issued by:

William W. Stelle, Jr.
Regional Administrator

Date Issued: March 19, 2013

Excerpt from SLOPES V Restoration General Construction March 19, 2013

1. **Boulder Placement** to increase habitat diversity and complexity, improve flow heterogeneity, provide substrate for aquatic vertebrates, moderate flow disturbances, and provide refuge for fish during high flows by placing large boulders in stream beds where similar natural rock has been removed.
2. **Fish Passage Restoration** to improve fish passage by installing or improving step structures, fish ladders, or lamprey ramps at an existing facility, or replacing or improving culverts.
3. **Large Wood Restoration** to increase coarse sediment storage, habitat diversity and complexity, retain gravel for spawning habitat, improve flow heterogeneity, provide long-term nutrient storage and substrate for aquatic macroinvertebrates, moderate flow disturbances, increase retention of leaf litter, and provide refuge for fish during high flows by placing large wood in areas where natural wood accumulations have been removed.
4. **Off- and Side-Channel Habitat Restoration** to reconnect stream channels with floodplains, increase habitat diversity and complexity, improve flow heterogeneity, provide long-term nutrient storage and substrate for aquatic macroinvertebrates, moderate flow disturbances, increase retention of leaf litter, and provide refuge for fish during high flows by restoring or modifying hydrologic and other essential habitat features of historical river floodplain swales, abandoned side channels, and floodplain channels.
5. **Pile Removal** to improve water quality by eliminating chronic sources of toxic contamination.
6. **Set-Back Existing Berms, Dikes and Levees** to reconnect stream channels with floodplains, increase habitat diversity and complexity, moderate flow disturbances, and provide refuge for fish during high flows by increasing the distance that existing berms, dikes or levees are set back from active streams or wetlands.
7. **Spawning Gravel Restoration** to improve spawning substrate by compensating for an identified loss of a natural gravel supply.
8. **Streambank Restoration** to restore eroding streambanks by (a) bank shaping and installation of coir logs or other soil reinforcements as necessary to support riparian vegetation; (b) planting or installing large wood, trees, shrubs, and herbaceous cover and controlling invasive and non-native plant species as necessary to restore ecological function in riparian and floodplain habitats; or (c) a combination of the above methods.
9. **Water Control Structure Removal** to reconnect stream corridors, reestablish wetlands, improve fish passage, and restore more natural channel and flow conditions by removing earthen embankments, subsurface drainage features, spillway systems, tide gates, outfalls, pipes, instream flow redirection structures (*e.g.*, drop structure, gabion, groin), or similar devices used to control, discharge, or maintain water levels.
10. **Wetland Restoration** to restore degraded wetlands by excavation and removal of fill materials.

Program Administration

[Conditions 1-5 are not applicable to Corps authorized party]

6. **Site access.** [Permittee shall ensure that] the Corps will retain the right of reasonable access to each project site to monitor the use and effectiveness of these conditions.

7. **Monitoring and reporting.** [Permittee] will ensure that the following notifications and reports are submitted to [the Corps] for each project to be completed under this opinion. All project notifications and reports are to be submitted [by the Corps] electronically to NMFS at slopes.nwr@noaa.gov, including:
   a. Project notification within 60-days before start of construction (Part 1).
   b. Project completion within 60-days of end of construction (Part 1 with Part 2 completed).
   c. Fish salvage within 60-days of work area isolation with fish capture (Part 1 with Part 3 completed).

[Conditions 8-9 are not applicable to Corps authorized party]

Project Design Criteria - General Construction Measures

10. **Project Design.**
   a. Use the best available scientific information regarding the likely effects of climate change on resources in the project area, including projections of local stream flow and water temperature, to ensure that the project will be adaptable to those changes.
   b. Obtain all applicable regulatory permits and official project authorizations before beginning construction.
   c. Minimize the extent and duration of earthwork, *e.g.*, compacting, dredging, drilling, excavation, and filling.
      i. Avoid use of heavy equipment, vehicles or power tools below bankfull elevation unless project specialists determine such work is necessary, or would result in less risk of sedimentation or other ecological damage than work above that elevation.
      ii. Complete earthwork in wetlands, riparian areas, and stream channels as quickly as possible.
   d. Cease project operations when high flows may inundate the project area, except for efforts to avoid or minimize resource damage.

11. **Site contamination assessment.**
   a. The level of detail and resources committed to such an assessment will be commensurate with the level and type of past or current development at the site. An applicant's assessment may include the following:
      i. Review available records, such as former site use and records of any prior contamination events.
      ii. If the project site was used for industrial processes (*i.e.*, mining or manufacturing with chemicals), inspect to determine the environmental condition of the property.
      iii. Interview people who are knowledgeable about the site, *e.g.*, site owners, operators, and occupants, neighbors, or local government officials.
   b. Consult with NMFS if ground disturbance to accomplish the proposed project would potentially release contaminants to aquatic habitat that supports listed fish species.

12. **Site layout and flagging.**
   a. Before any significant ground disturbance or entry of mechanized equipment or vehicles into the construction area, clearly flag that area to identify:
      i. Sensitive areas, *e.g.*, wetlands, water bodies, ordinary high water, spawning areas.

ii. Equipment entry and exit points.
iii. Road and stream crossing alignments.
iv. Staging, storage, and stockpile areas.

b. Before use of herbicides, clearly flag all buffer areas, including any no-application zones.

13. Staging, storage, and stockpile areas.

a. Designate and use staging areas to store hazardous materials, or to store, fuel, or service heavy equipment, vehicles and other power equipment with tanks larger than 5 gallons, that are at least 150 feet from any natural water body or wetland, or on an established paved area, such that sediment and other contaminants from the staging area cannot be deposited in the floodplain or stream.

b. Natural materials that are displaced by construction and reserved for restoration, *e.g.*, large wood, gravel, and boulders, may be stockpiled within the 100-year floodplain.

c. Dispose of any material not used in restoration and not native to the floodplain outside of the functional floodplain.

d. After construction is complete, obliterate all staging, storage, or stockpile areas, stabilize the soil, and revegetate the area.[1]

14. Erosion control.

a. Use site planning and site erosion control measures commensurate with the scope of the project to prevent erosion and sediment discharge from the project site.

b. Before significant earthwork begins, install appropriate, temporary erosion controls downslope to prevent sediment deposition in the riparian area, wetlands, or water body.

c. During construction, if eroded sediment appears likely to be deposited in the stream during construction, install additional sediment barriers as necessary.

d. Temporary erosion control measures may include fiber wattles, silt fences, jute matting, wood fiber mulch and soil binder, or geotextiles and geosynthetic fabric.

e. Soil stabilization using wood fiber mulch and tackifier (hydro-applied) may be used to reduce erosion of bare soil, if the materials are free of noxious weeds and nontoxic to aquatic and terrestrial animals, soil microorganisms, and vegetation.

f. Remove sediment from erosion controls if it reaches 1/3 of the exposed height of the control.

g. Whenever surface water is present, maintain a supply of sediment control materials and an oil-absorbing floating boom at the project site.

h. Remove temporary erosion controls after construction is complete and the site is fully stabilized.

15. Hazardous material spill prevention and control.

a. At the project site:

i. Post written procedures for notifying environmental response agencies, including an inventory and description of all hazardous materials present, and the storage and handling procedures for their use.

ii. Maintain a spill containment kit, with supplies and instructions for cleanup and disposal, adequate for the types and quantity of hazardous materials present.

iii. Train workers in spill containment procedures, including the location and use of the spill containment kits.

b. Temporarily contain any waste liquids generated under an impervious cover, such as a tarpaulin, in the staging area until the wastes can be properly transported to, and disposed of, at an approved receiving facility.

16. Equipment, vehicles, and power tools.

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[1] Road and path obliteration refers to the most comprehensive degree of decommissioning and involves decompacting the surface and ditch, pulling the fill material onto the running surface, and reshaping to match the original contour.

a. Select, operate and maintain all heavy equipment, vehicles, and power tools to minimize adverse effects on the environment, *e.g.*, low pressure tires, minimal hard-turn paths for track vehicles, use of temporary mats or plates to protect wet soils.
b. Before entering wetlands or within 150 feet of a waterbody, replace all petroleum-based hydraulic fluids with biodegradable products.[2]
c. Invasive species prevention and control.
    i. Before entering the project site, power wash all heavy equipment, vehicles and power tools, allow them to fully dry, and inspect them to make certain no plants, soil, or other organic material adhering to the surface.
    ii. Before entering the water, inspect any watercraft, waders, boots, or other gear to be used in or near water and remove any plants, soil, or other organic material adhering to the surface.
d. Inspect all equipment, vehicles, and power tools for fluid leaks before they leave the staging area.
e. Before operation within 150 feet of any waterbody , and as often as necessary during operation, thoroughly clean all equipment, vehicles, and power tools to keep them free of external fluids and grease and to prevent leaks and spills from entering the water.
f. Generators, cranes or other stationary heavy equipment operated within 150 feet of any waterbody must be maintained and protected as necessary to prevent leaks and spills from entering the water.

17. Temporary access roads and paths.

a. Whenever reasonable, use existing access roads and paths preferentially.
b. Minimize the number and length of temporary access roads and paths through riparian areas and floodplains.
c. Minimize removal of riparian vegetation.
d. When it is necessary to remove vegetation, cut at ground level (no grubbing).
e. Do not build temporary access roads or paths where grade, soil, or other features suggest slope instability.
f. Any road on a slope steeper than 30% must be designed by a civil engineer with experience in steep road design.
g. After construction is complete, obliterate all temporary access roads and paths, stabilize the soil, and revegetate the area.
h. Temporary roads and paths in wet areas or areas prone to flooding must be obliterated by the end of the in-water work window. Decompact road surfaces and drainage areas, pull fill material onto the running surface, and reshape to match the original contours.

18. Dust abatement.

a. Employ dust abatement measures commensurate with soil type, equipment use, wind conditions, and the effects of other erosion control measures.
b. Sequence and schedule work to reduce the exposure of bare soil to wind erosion.
c. Maintain spill containment supplies on-site whenever dust abatement chemicals are applied.
d. Do not use petroleum-based products.
e. Do not apply dust-abatement chemicals, *e.g.*, magnesium chloride, calcium chloride salts, ligninsulfonate, within 25 feet of water or a stream channel.
f. Do not apply ligninsulfonate at rates exceeding 0.5 gallons per square yard of road surface, assuming a 50:50 solution of ligninsulfonate to water.

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[2] For additional information and suppliers of biodegradable hydraulic fluids, motor oil, lubricant, or grease. See, Environmentally Acceptable Lubricants by the U.S. EPA (2011); *e.g.*, mineral oil, polyglycol, vegetable oil, synthetic ester; Mobil® biodegradable hydraulic oils, Total® hydraulic fluid, Terresolve Technologies Ltd.® bio-based biodegradable lubricants, Cougar Lubrication® 2XT Bio engine oil, Series 4300 Synthetic Bio-degradable Hydraulic Oil, 8060-2 Synthetic Bio-Degradable Grease No. 2, *etc.* The use of trade, firm, or corporation names in this opinion is for the information and convenience of the action agency and applicants 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.

g. Do not apply dust abatement chemicals at stream crossings, within 25 feet of a water body, or in other areas where they may runoff directly into a wetland or water body.

19. Temporary stream crossings.

a. No stream crossing may occur at active spawning sites, when holding adult listed fish are present, or when eggs or alevins are in the gravel.
b. Do not place temporary crossings in areas that may increase the risk of channel re-routing or avulsion, or in potential spawning habitat, *e.g.*, pools and pool tailouts.
c. Minimize the number of temporary stream crossings; use existing stream crossings whenever reasonable.
d. Install temporary bridges and culverts to allow for equipment and vehicle crossing over perennial streams during construction.
e. Wherever possible, vehicles and machinery must cross streams at right angles to the main channel.
f. Equipment and vehicles may cross the stream in the wet only where the streambed is bedrock, or where mats or off-site logs are placed in the stream and used as a crossing.
g. Obliterate all temporary stream crossings as soon as they are no longer needed, and restore any damage to affected stream banks or channel.

20. Surface water withdrawal and construction discharge water.

a. Surface water may be diverted to meet construction needs, but only if developed sources are unavailable or inadequate.
b. Diversions may not exceed 10% of the available flow and must have a juvenile fish exclusion device that is consistent with NMFS's criteria (NMFS 2011e).[3]

c. Treat all construction discharge water using the best management practices applicable to site conditions to remove debris, sediment, petroleum products, and any other pollutants likely to be present, (*e.g.*, green concrete, contaminated water, silt, welding slag, sandblasting abrasive, grout cured less than 24 hours, drilling fluids) to ensure that no pollutants are discharged from the construction site.

21. Fish passage.

a. Provide fish passage for any adult or juvenile ESA-listed fish likely to be present in the action area during construction, unless passage did not exist before construction or the stream is naturally impassable at the time of construction.
b. After construction, provide fish passage for any adult or juvenile ESA-listed fish that meets NMFS's fish passage criteria (NMFS 2011) for the life of the action.

22. In-water work timing.

a. Complete all work within the wetted channel during dates listed in the most recent version of Oregon Guidelines for Timing of In-water Work to Protect Fish and Wildlife Resources (ODFW 2008), except that the winter work window (December 1 – January 31) is not approved for actions in the Willamette River below Willamette Falls.
b. Hydraulic and topographic measurements and placement of large wood or gravel may be completed anytime, provided the affected area is not occupied by adult fish congregating for spawning, or in an area where redds are occupied by eggs or pre-emergent alevins.

23. Work area isolation

a. Isolate any work area within the wetted channel from the active stream whenever ESA-listed fish are reasonably certain to be present, or if the work area is less than 300 feet upstream from known spawning habitats.

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[3] National Marine Fisheries Service. 2011. Anadromous salmonid passage facility design. Northwest Region.

b. Engineering design plans for work area isolation must include all isolation elements and fish release areas.
c. Dewater the shortest linear extent of work area practicable, unless wetted in-stream work is deemed to be minimally harmful to fish, and is beneficial to other aquatic species.[4]
    i. Use a coffer dam and a by-pass culvert or pipe, or a lined, non-erodible diversion ditch to divert flow around the dewatered area. Dissipate flow energy to prevent damage to riparian vegetation or stream channel and provide safe downstream reentry of fish, preferably into pool habitat with cover.
    ii. Where gravity feed is not possible, pump water from the work site to avoid rewatering. Maintain a fish screen on the pump intake to avoid juvenile fish entrainment.
    iii. Pump seepage water to a temporary storage and treatment site, or into upland areas, to allow water to percolate through soil or to filter through vegetation before reentering the stream channel with a treatment system comprised of either a hay bale basin or other sediment control device.
    iv. Monitor below the construction site to prevent stranding of aquatic organisms.
    v. When construction is complete, re-water the construction site slowly to prevent loss of surface flow downstream, and to prevent a sudden increase in stream turbidity.
d. Whenever a pump is used to dewater the isolation area and ESA-listed fish may be present, a fish screen must be used that meets the most current version of NMFS's fish screen criteria (NMFS 2011e). NMFS approval is required for pumping that exceeds 3 cfs.

24. Fish capture.

a. If practicable, allow listed fish species to migrate out of the work area or remove fish before dewatering; otherwise remove fish from an exclusion area as it is slowly dewatered with methods such as hand or dip-nets, seining, and trapping with minnow traps (or gee-minnow traps).
b. Fish capture must be supervised by a qualified fisheries biologist, with experience in work area isolation and competent to ensure the safe handling of all fish.
c. Conduct fish capture activities during periods of the day with the coolest air and water temperatures possible, normally early in the morning to minimize stress and injury of species present.
d. Monitor the nets need to isolate a site frequently enough to ensure they stay secured to the banks and free of organic accumulation.
e. Electrofishing may only be used only after other means of fish capture are determined to be not feasible or ineffective during the coolest time of day.
    i. Do not electrofish when the water appears turbid, *e.g.*, when objects are not visible at depth of 12 inches.
    ii. Do not intentionally contact fish with the anode.
    iii. Follow NMFS (2000) electrofishing guidelines, including use of only direct current (DC) or pulsed direct current within the following ranges:[5]
        1. If conductivity is less than 100 µs, use 900 to 1100 volts.
        2. If conductivity is between 100 to 300 µs, use 500 to 800 volts.
        3. If conductivity greater than 300 µs, use less than 400 volts.
    iv. Begin electrofishing with a minimum pulse width and recommended voltage, then gradually increase to the point where fish are immobilized.
    v. Immediately discontinue electrofishing if fish are killed or injured, *i.e.*, dark bands visible on the body, spinal deformations, significant de-scaling, torpid or inability to maintain upright attitude after sufficient recovery time. Recheck machine settings, water

[4] For instructions on how to dewater areas occupied by lamprey, see USFWS (2010).

[5] National Marine Fisheries Service. 2000. Guidelines for electrofishing waters containing salmonids listed under the Endangered Species Act. Portland, Oregon and Santa Rosa, California.

temperature and conductivity, and adjust or postpone procedures as necessary to reduce injuries.

f. If buckets are used to transport fish:
   i. Minimize the time fish are in a transport bucket.
   ii. Keep buckets in shaded areas or, if no shade is available, covered by a canopy.
   iii. Limit the number of fish within a bucket; fish will be of relatively comparable size to minimize predation.
   iv. Use aerators or replace the water in the buckets at least every 15 minutes with cold clear water.
   v. Release fish in an area upstream with adequate cover and flow refuge; downstream is acceptable provided the release site is below the influence of construction.
   vi. Be careful to avoid mortality counting errors.

g. Monitor and record fish presence, handling, and injury during all phases of fish capture and submit a fish salvage report to the Corps and NMFS within 10 days.

25. Site restoration.

a. Restore any significant disturbance of riparian vegetation, soils, stream banks or stream channel.
b. Remove all project related waste; *e.g.*, pick up trash, sweep roadways in the project area to avoid runoff-containing sediment, *etc.*
c. Obliterate all temporary access roads, crossings, and staging areas.
d. Loosen compacted areas of soil when necessary for revegetation or infiltration.
e. Although no single criterion is sufficient to measure restoration success, 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:
   i. Human and livestock disturbance, if any, are confined to small areas necessary for access or other special management situations.
   ii. Areas with signs of significant past erosion are completely stabilized and healed, bare soil spaces are small and well-dispersed.
   iii. Soil movement, such as active rills and soil deposition around plants or in small basins, is absent or slight and local.
   iv. Native woody and herbaceous vegetation, and germination microsites, are present and well distributed across the site; invasive plants are absent.
   v. Plants have normal, vigorous growth form, and a high probability of remaining vigorous, healthy and dominant over undesired competing vegetation.
   vi. 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").
   vii. A continuous corridor of shrubs and trees appropriate to the site are present to provide shade and other habitat functions for the entire streambank.

26. Revegetation.

a. Plant and seed disturbed areas before or at the beginning of the first growing season after construction.
b. Use species that will achieve shade and erosion control objectives, including forb, grass, shrub, or tree species that are appropriate for the site and native to the project area or region.
c. Short-term stabilization measures may include use of non-native sterile seed mix if native seeds are not available, weed-free certified straw, jute matting, and similar methods.
d. When feasible, use vegetation salvaged from local areas scheduled for clearing due to development.
e. Do not apply surface fertilizer within 50 feet of any wetland of water body.
f. Install fencing as necessary to prevent access to revegetated sites by livestock or unauthorized persons.
g. Do not use invasive or non-native species for site restoration.

h. Remove or control invasive plants until native plant species are well-established.

27. **Invasive and non-native plant control.**

a. ***Non-herbicide methods.*** Limit vegetation removal and soil disturbance within the riparian zone by limiting the number of workers there to the minimum necessary to complete manual and mechanical plant control (*e.g.*, hand pulling, clipping, stabbing, digging, brush-cutting, mulching or heating with radiant heat, pressurized hot water, or heated foam).

b. ***Herbicide Label.*** Herbicide applicators must comply with all label instructions.

c. ***Power equipment.*** Refuel gas-powered equipment with tanks larger than 5 gallons in a vehicle staging area placed 150 feet or more from any natural waterbody, or in an isolated hazard zone such as a paved parking lot.

d. ***Maximum herbicide treatment area.*** For the total area treated with herbicides within riparian areas, do not exceed 10-acres above bankfull elevation and 2 acres below bankfull elevation, per 1.6-mile reach of a stream, per year.

e. ***Herbicide applicator qualifications.*** Herbicides may only be applied only by an appropriately licensed applicator using an herbicide specifically targeted for a particular plant species that will cause the least impact. The applicator will be responsible for preparing and carrying out and the herbicide transportation and safely plan, as follows.

f. ***Herbicide transportation and safety plan.*** The applicator will prepare and carry out an herbicide safety/spill response plan to reduce the likelihood of spills or misapplication, to take remedial actions in the event of spills, and to fully report the event.

g. ***Herbicides.*** The only herbicides proposed for use under this opinion are (some common trade names are shown in parentheses):[6]

i. aquatic imazapyr (*e.g.*, Habitat)
ii. aquatic glyphosate (*e.g.*, AquaMaster, AquaPro, Rodeo)
iii. aquatic triclopyr-TEA (*e.g.*, Renovate 3)
iv. chlorsulfuron (*e.g.*, Telar, Glean, Corsair)
v. clopyralid (*e.g.*, Transline)
vi. imazapic (*e.g.*, Plateau)
vii. imazapyr (*e.g.*, Arsenal, Chopper)
viii. metsulfuron-methyl (*e.g.*, Escort)
ix. picloram (*e.g.*, Tordon)
x. sethoxydim (*e.g.*, Poast, Vantage)
xi. sulfometuron-methyl (*e.g.*, Oust, Oust XP)

h. ***Herbicide adjuvants.*** The only adjuvants proposed for use under this opinion are as follows, with mixing rates described in label instructions (Table 3). Polyethoxylated tallow amine (POEA) surfactant and herbicides that contain POEA (*e.g.*, Roundup) will not be used.

Table 3. Herbicide adjuvants, trade names, and application areas.

Adjuvant Type	Trade Name	Application Areas
Surfactants	Agri-Dex	Riparian
	LI 700	Riparian
Drift Retardants	41-A	Riparian
	Vale	Upland

[6] The use of trade, firm, or corporation names in this opinion is for the information and convenience of the action agency and applicants 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.

i. ***Herbicide carriers.*** Herbicide carriers (solvents) are limited to water or specifically labeled vegetable oil. Use of diesel oil as an herbicide carrier is prohibited.

j. ***Herbicide mixing.*** Mix herbicides more than 150 feet from any natural waterbody to minimize the risk of an accidental discharge.

k. ***Dyes.*** Use a non-hazardous indicator dye (*e.g.*, Hi-Light or Dynamark™) with herbicides within 100 feet of live water. The presence of dye makes it easier to see where the herbicide has been applied and where or whether it has dripped, spilled, or leaked. Dye also makes it easier to detect missed spots, avoid spraying a plant or area more than once, and minimize over-spraying (SERA 1997).

l. ***Spill Cleanup Kit.*** Provide a spill cleanup kit whenever herbicides are used, transported, or stored. At a minimum, cleanup kits will include, Material Safety Data Sheets, the herbicide label, emergency phone numbers, and absorbent material such as cat litter to contain spills.

m. ***Herbicide application rates.*** Apply herbicides will be applied at the lowest effective label rates.

n. ***Herbicide application methods.*** Apply liquid or granular forms of herbicides as follows:
   i. Broadcast spraying – hand held nozzles attached to back pack tanks or vehicles, or by using vehicle mounted booms.
   ii. Spot spraying – hand held nozzles attached to back pack tanks or vehicles, hand-pumped spray, or squirt bottles to spray herbicide directly onto small patches or individual plants using.
   iii. Hand/selective – wicking and wiping, basal bark, fill ("hack and squirt"), stem injection, cut-stump.
   iv. Triclopyr – will not be applied by broadcast spraying.
   v. Keep the spray nozzle within 4 feet of the ground; 6 feet for spot or patch spraying more than 15 feet of the high water mark (HWM) if needed to treat tall vegetation.
   vi. Apply spray in swaths parallel towards the project area, away from the creek and desirable vegetation, *i.e.*, the person applying the spray will generally have their back to the creek or other sensitive resource.
   vii. Avoid unnecessary run off during cut surface, basal bark, and hack-squirt/injection applications.

o. ***Washing spray tanks.*** Wash spray tanks 300 feet or more away from any surface water.

p. ***Minimization of herbicide drift and leaching.*** Minimize herbicide drift and leaching will as follows:
   i. Do not spray when wind speeds exceed 10 miles per hour, or are less than 2 miles per hour.
   ii. Be aware of wind directions and potential for herbicides to affect aquatic habitat area downwind.
   iii. Keep boom or spray as low as possible to reduce wind effects.
   iv. Increase spray droplet size whenever possible by decreasing spray pressure, using high flow rate nozzles, using water diluents instead of oil, and adding thickening agents.
   v. Do not apply herbicides during temperature inversions, or when ground temperatures exceed 80 degrees Fahrenheit.
   vi. Wind and other weather data will be monitored and reported for all broadcast applications.

q. ***Rain.*** Do not apply herbicides when the soil is saturated or when a precipitation event likely to produce direct runoff to salmon bearing waters from the treated area is forecasted by the NOAA National Weather Service or other similar forecasting service within 48 hours following application. Soil-activated herbicides may follow label instructions. Do not conduct hack-squirt/injection applications during periods of heavy rainfall.

r. ***Herbicide buffer distances.*** Observe the following no-application buffers, measured in feet and are based on herbicide formula, stream type, and application method, during herbicide applications (Table 4). Use the most conservative buffer for any herbicide included in a combination of approved herbicides. Buffer widths are in feet, measured as map distance perpendicular to the bankfull elevation for streams, the upland boundary for wetlands, or the

upper bank for roadside ditches. Before herbicide application begins, flag or mark the upland boundary of each applicable herbicide buffer to ensure that all buffers are in place and functional during treatment.

Table 4. Herbicide buffer distances by herbicide formula, stream type, and application method.

Herbicide	No Application Buffer Width (feet)					
	Streams and Roadside Ditches with flowing or standing water present and Wetlands			Dry Streams, Roadside Ditches, and Wetlands		
	Broadcast Spraying	Spot Spraying	Hand Selective	Broadcast Spraying	Spot Spraying	Hand Selective
Labeled for Aquatic Use						
Aquatic Glyphosate	100	waterline	waterline	50	None	none
Aquatic Imazapyr	100	15	waterline	50	None	none
Aquatic Triclopyr-TEA	**Not Allowed**	15	waterline	**Not Allowed**	None	none
Low Risk to Aquatic Organisms						
Imazapic	100	15	bankfull elevation	50	None	none
Clopyralid	100	15	bankfull elevation	50	None	none
Metsulfuron-methyl	100	15	bankfull elevation	50	None	none
Moderate Risk to Aquatic Organisms						
Imazapyr	100	50	bankfull elevation	50	15	bankfull elevation
Sulfometuron-methyl	100	50	5	50	15	bankfull elevation
Chlorsulfuron	100	50	bankfull elevation	50	15	bankfull elevation
High Risk to Aquatic Organisms						
Picloram	100	50	50	100	50	50
Sethoxydim	100	50	50	100	50	50

Project Design Criteria - Types of Restoration Actions

28. Boulder placement.[7]

a. Boulder placement is limited to stream reaches with an intact, well-vegetated riparian area, including trees and shrubs where those species would naturally occur, or that are part of riparian area restoration action; and a stream bed that consists predominantly of coarse gravel or larger sediments.

b. Install boulders as follows:

i. The cross-sectional area of boulders may not exceed 25% of the cross-sectional area of the low flow channel, or be installed to shift the stream flow to a single flow pattern in the middle or to the side of the stream.

ii. Boulders will be machine-placed (no end dumping allowed).

iii. Permanent anchoring, including rebar and cables, may not be used.

[7] For additional information on design and methods for boulder placement, see "boulder clusters" in Cramer (2012).

29. Fish passage restoration: Step structures, fish ladder, and culvert replacement.

a. Step structures for engineered riffles (3-5% slope) and cascades (>5% slope):
   i. Construct log or rock structures in a 'V' or 'U' shape, oriented with the apex upstream, and lower in the center to direct flows to the middle of channel.
   ii. Key structures into the stream bed to minimize structure undermining due to scour, preferably at least 2.5x their exposure height. The structures should also be keyed into both banks—if feasible greater than 8 feet.
   iii. If several structures will be used in series, space them at the appropriate distances to promote fish passage of all life stages of native fish. Incorporate fish passage criteria (jump height, pool depth, *etc.*) in the design of log or rock step structures. Recommended spacing should be no closer than the net drop divided by the channel slope (for example, a one-foot high step in a stream with a two-percent gradient will have a minimum spacing of 50 feet).
   iv. All rock structures shall be comprised of a well graded mix between D50 and Dmax material, and contain no less than 15% fine material. For boulder weir designs, the placement of large weir stones only, tends to create porous flow through the weir, instead of surface flow over the weir sill. For this reason the use of bands is recommended over weirs. Both designs should ensure the rock mix is properly sealed by washing sufficient fines into the structure until pooled water is static for several minutes without visible seepage. This will reduce the risk of subsurface flow and ensure fish passage immediately following construction if natural flows are present. If a project involves the removal of multiple barriers on one stream or in one watershed over the course of a work season, remove the most upstream barrier first if possible. This way, work at the upstream sites can be completed without listed fish in the project area.
   v. This consultation does not include structures that use gabion baskets, sheet pile, concrete, articulated concrete block, cable anchors, or structures perpendicular to the channel, which disperse flows and can cause channel widening and thus structure "flanking" (erosion around the ends of the structure).

b. When a permanent stream crossing is replaced to provide fish passage, the new crossing must provide for a fully functional floodplain as follows:
   i. Maintain a clear unobstructed opening above the general scour prism; streambank and channel stabilization may be applied below the general scour elevation.
   ii. For a single span structure, including culverts, the necessary opening is presumed to be 1.5 times the active channel width[8], or wider.
   iii. Entrenched Streams: If a stream is entrenched (entrenchment ratio of less than 1.4), the culvert must be greater in width than the bankfull channel width, allow sufficient vertical clearance to allow ease of construction and maintenance activities, provide adequate room for the construction of natural channel banks, and be reviewed by NMFS for consistency with (NMFS 2011e).
   iv. For a multiple span structure, the necessary opening is presumed to be 2.2 times the active channel width, or wider, except for piers or interior bents.
   v. Install relief conduits, as necessary, within existing road fill at potential flood flow pathways based on analysis of flow patterns or floodplain topography.
   vi. Remove all other artificial constrictions within the functional floodplain that are not otherwise a component of the final design:
      1. Remove vacant bridge supports below total scour depth, unless the vacant support is part of the rehabilitated or replacement stream crossing.

[8] Active channel width means the stream width measured perpendicular to stream flow between the ordinary high water lines, or at the channel bankfull elevation if the ordinary high water lines are indeterminate. This width includes the cumulative active channel width of all individual side- and off-channel components of channels with braided and meandering forms, and measure outside the area influence of any existing stream crossing, *e.g.*, five to seven channel widths upstream and downstream.

2. Remove existing roadway fill, embankment fill, approach fill, or other fill.

c. Reshape exposed floodplains and streambanks to match upstream and downstream conditions.

d. The Corps will not issue a permit to install or improve a step structure or fish ladder, or to replace or improve a culvert, until the action has been reviewed and approved by NMFS for consistency with NMFS fish passage criteria (NMFS 2011e). Fish passage actions that would not require prior approval must still complete a post-action report.

30. Large wood placement.[9]

a. Place large wood in areas where it would naturally occur and in a manner that closely mimic natural accumulations for that particular stream type.

b. Stabilizing or key pieces of large wood that will be relied on to provide streambank stability or redirect flows must be intact, hard, and undecayed to partly decaying, and should have untrimmed root wads to provide functional refugia habitat for fish.

c. Use of decayed or fragmented wood found lying on the ground or partially sunken in the ground is not acceptable.

d. Anchoring alternatives may be used in preferential order: 1) use of adequate sized wood sufficient for stability; 2) orient and place wood in such a way that movement is limited; 3) ballast (gravel and/or rock) to increase the mass of the structure to resist movement; 4) use large boulders as anchor points for the large wood.

31. Off- or side-channel habitat restoration.[10]

a. Reconnection of historical off- and side-channels habitats that have been blocked includes the removal of plugs, which impede water movement through off- and side-channels, and excavation within historical channels that does not exceed the thalweg depth in the main channel. The purpose of the additional sediment removal is to provide unimpeded flow through the side-channel to minimize fish entrapment.

b. Excavated material removed from off- or side-channels shall be hauled to an upland site or spread across the adjacent floodplain in a manner that does not restrict floodplain capacity.

c. Data requirements and analysis that must be submitted to NMFS with a request for approval of off- and side-channel habitat restoration include evidence of historical channel location, such as land use surveys, historical photographs, topographic maps, and remote sensing information.

d. The Corps will not issue a permit for off- or side channel habitat restoration until the action has been reviewed and approved by NMFS.

32. Pile removal.

a. Use the following steps to minimize creosote release, sediment disturbance, and total suspended solids:

i. Install a floating surface boom to capture floating surface debris.

ii. 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.

iii. Dislodge the piling with a vibratory hammer, whenever feasible--never intentionally break a pile by twisting or bending.

iv. Slowly lift the pile from the sediment and through the water column.

v. 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

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[9] For additional information on selection of large wood for restoration actions, see stream slope and width dimensions and minimum large wood piece diameters described in Figure 1 in the most recent version of ODF and ODFW (1995), and for anchoring and placement, see Cramer *et al.* (2003).

[10] For additional information on methods and design considerations for off- and side-channel habitat restoration, see "side channel/off-channel habitat restoration" in Cramer (2012).

with sidewalls supported by hay bales or another support structure to contain all sediment, and return flow may be directed back to the waterway).

vi. Fill the holes left by each piling with clean, native sediments.

vii. Dispose of all removed piles, floating surface debris, any sediment spilled on work surfaces, and all containment supplies at a permitted upland disposal site.

b. If a pile breaks above the surface of uncontaminated sediment, or less than 2 feet below the surface, make every attempt short of excavation to remove it entirely. If the pile cannot be removed without excavation, saw the stump off at least 3 feet below the surface of the sediment.

c. If a pile breaks above contaminated sediment, saw the stump off at the sediment line; if a pile breaks within contaminated sediment, make no further effort to remove it and cover the hole with a cap of clean substrate appropriate for the site.

d. If dredging is likely in the area of piling removal, use a global positioning device (GPS) to note the location of all broken piles for future use in site debris characterization.

33. Set-back existing berm, dike, or levee.[11]

a. To the greatest degree possible, non-native fill material, originating from outside the floodplain of the action area will be removed from the floodplain to an upland site.

b. Where it is not possible to remove or set-back all portions of dikes and berms, or in areas where existing berms, dikes, and levees support abundant riparian vegetation, openings will be created with breaches.

i. Breaches shall be equal to or greater than the active channel width.

ii. In addition to other breaches, the berm, dike, or levee shall always be breached at the downstream end of the project and/or at the lowest elevation of the floodplain to ensure the flows will naturally recede back into the main channel, thus minimizing fish entrapment.

iii. When necessary, loosen compacted soils once overburden material is removed.

c. Overburden or fill comprised of native materials, which originated from the project area, may be used within the floodplain to create set-back dikes and fill anthropogenic holes provided that does not impede floodplain function.

d. The Corps will not issue a permit for set-back of existing berms, dikes or levees until the action has been reviewed and approved by NMFS.

34. Spawning gravel restoration.[12]

a. Gravel augmentation is limited to areas where the natural supply has been eliminated or significantly reduced through anthropogenic means.

b. Gravel to be placed in streams must be obtained from an upland source outside of the channel and riparian area (gravel from any instream source is prohibited), sized such that 50% of the gradation becomes mobile at the dominant discharge event, rounded and uncrushed (less than 25% fractured face), and washed before instream placement.

35. Streambank restoration.[13]

a. Without changing the location of the bank toe, restore damaged streambanks to a natural slope, pattern, and profile suitable for establishment of permanent woody vegetation.

b. Complete all soil reinforcement earthwork and excavation in the dry. Use soil layers or lifts that are strengthened with biodegradable fabrics and penetrable by plant roots.

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[11] For additional information on methods and design considerations for levee removal and modification, see "levee removal and modification" in Cramer (2012).

[12] For additional information on gravel restoration methods and design, see "salmonid spawning gravel cleaning and placement" in Cramer (2012).

[13] For additional information on methods and design for bank shaping; installation of coir logs and soil reinforcements; anchoring and placement of large wood; woody plantings; and herbaceous cover, see Cramer *et al.* (2003), and "riparian restoration and management" in Cramer (2012).

c. Include large wood in each streambank restoration action to the maximum extent feasible. Large wood must be intact, hard, and undecayed to partly decaying, and should have untrimmed root wads to provide functional refugia habitat for fish. Use of decayed or fragmented wood found lying on the ground or partially sunken in the ground is not acceptable. Wood that is already within the stream or suspended over the stream may be repositioned to allow for greater interaction with the stream.
d. Rock may not be used for streambank restoration, except as ballast to stabilize large wood.
e. Use a diverse assemblage of species native to the action area or region, including trees, shrubs, and herbaceous species. Do not use noxious or invasive species.
f. Do not apply surface fertilizer within 50 feet of any stream channel.
g. Install fencing as necessary to prevent access to revegetated sites by livestock or unauthorized persons.

36. Water control structure removal.

a. This includes removal of small dams that are less than 10 meters (16.4 feet) high, do not impound contaminated sediments, and are not likely to initiate head-cutting; channel-spanning structures; subsurface drainage features; tide gates; or instream flow redirection structures.
   i. Data requirements and analysis for structure removal include:
      1. A longitudinal profile of the stream channel thalweg for 20 channel widths upstream and downstream of the structure shall be used to determine the potential for channel degradation.
      2. A minimum of three cross-sections – one downstream of the structure, one through the reservoir area upstream of the structure, and one upstream of the reservoir area (outside of the influence of the structure) to characterize the channel morphology and quantify the stored sediment.
      3. Sediment characterization to determine the proportion of coarse sediment (>2mm) in the reservoir area.
   ii. A survey of any downstream spawning areas that may be affected by sediment released by removal of the water control structure. Reservoirs with a d35 greater than 2 mm (*i.e.*, 65% of the sediment by weight exceeds 2 mm in diameter) may be removed without excavation of stored material, if the sediment contains no contaminants; reservoirs with a d35 less than 2 mm (*i.e.*, 65% of the sediment by weight is less than 2 mm in diameter) will require partial removal of the fine sediment to create a pilot channel, in conjunction with stabilization of the newly exposed streambanks with native vegetation.

b. The Corps will not issue a permit for removal of any water control structure (including an earthen embankment, subsurface drainage feature, spillway system, tide gate, and an instream flow redirection structure, such as a drop structure, gabion, or groin) that is used to control, discharge, or maintain water levels, until the action has been reviewed and approved by NMFS.

37. Wetland restoration.

a. The Corps will include applicable general construction measures and PDC for specific types of actions as applicable (*e.g.*, general construction measures; off-and side-channel restoration; set-back of existing berms, dikes, and levees; and removal of water control structures) to ensure that all adverse effects to fish and their designated critical habitats are within the range of effects considered in this opinion.

ACTION COMPLETION REPORT

The applicant shall submit this form to the Corps within 60 days of completing all work below ordinary high water (OHW). The Corps shall submit this form to NMFS at *slopes.nwr@noaa.gov* upon receipt from the applicant. If it is a Corps project, the Corps shall submit this form within 60 days of completing all work below OHW.

Actual Start and End Dates for the Completion of In-water Work:	***Start*:**	***End*:**
Actual Linear-feet of Riparian and/or Channel Modification:		
Actual Acreage of Herbicide Treatment		
Turbidity Monitoring/Sampling Completed	☐ Yes (include details below)	☐ No

Please include the following:

1. Photos of habitat conditions before, during, and after action completion.
2. A summary of the results of pollution and erosion control inspections, including any erosion control failure, contaminant release, and correction effort.
3. Records of turbidity monitoring (visual or by turbidimeter) including dates, times and location of monitoring. Include any exceedances and steps taken to reduce turbidity observed.

FISH SALVAGE REPORT

If applicable: The applicant shall submit a completed Fish Salvage Report and Fish Salvage Data Table (see below) to the Corps within 10 days of completing a capture and release as part of an action completed under SLOPES V Restoration. The Corps must submit the report to NMFS at *slopes.nwr@noaa.gov* upon receipt from the applicant. If it is a Corps project, the Corps shall submit this form to NMFS within 10 days of completing a capture and release event.

Date(s) of Fish Salvage Operation(s): _____

Supervisory Fish Biologist: _____

Address _____

Telephone Number _____

Describe methods that were used to isolate the work area and remove fish

Fish Salvage Data

Water Temperature:

Air Temperature:

Time of Day:

ESA-Listed Species	Number Handled		Number Injured		Number Killed	
	Juvenile	Adult	Juvenile	Adult	Juvenile	Adult
Lower Columbia River Chinook						
Upper Willamette River Chinook						
Upper Columbia River spring-run Chinook						
Snake River spring/summer run Chinook						
Snake River fall-run Chinook						
Chinook, unspecified						
Columbia River chum						
Lower Columbia River coho						
Oregon Coast coho						
Southern Oregon/Northern California Coasts coho						
Snake River sockeye						
Lower Columbia River steelhead						
Upper Willamette River steelhead						
Middle Columbia River steelhead						
Upper Columbia River steelhead						
Snake River Basin steelhead						
Steelhead, unspecified						
Southern green sturgeon						
Eulachon						

COMPLIANCE CERTIFICATION

U.S. Army Corps of Engineers
CENWP-OD-GC
Post Office Box 2946
Portland, Oregon 97208-2946

1. Permittee Name: City of Sherwood

2. County: Washington County

3. Corps Permit No: NWP-2015-257

4. Corps Contact: Compliance Project Manager for Washington County

5. Type of Activity: NWP No. 27 (Culvert Replacement)

Please sign and return form to the address above:

I hereby certify that the work authorized the above referenced permit has been completed in accordance with the terms and conditions of said permit and that required mitigation is completed in accordance with the permit conditions, except as described below.

_____

Signature of Permittee **Date**

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there "*may be*" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

A. REPORT COMPLETION DATE: July 16, 2015

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:
City of Sherwood, Engineering
Attn: Craig Christensen
22560 SW Pine St
Sherwood, OR 97140

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
Portland District
City of Sherwood Fish Passage Mitigation
NWP-2015-00257

D. PROJECT LOCATION(S), BACKGROUND INFORMATION, AND WATERS:

State: OR
City: Sherwood
County: Washington
Name of nearest waterbody: Cedar Creek

Identify amount of waters in the review area: 0.005 Acres
Name of any water bodies on the site that have been identified as Section 10 waters: None
Tidal:
Non-Tidal:

Waters of the U.S. :

Waterbody	Latitude (dd.ddd °N)	Longitude (dd.ddd °W)	Cowardin Class	Area (Acres)	Length (Feet)	Width (Feet)
Tributary to Cedar Creek	45.36225	-122.859356	Riverine	0.005	~40	Varies
Wetland	45.362324	-122.859364	Palustrine	0.02	Varies	Varies

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 07/16/2015
☐ Field Determination. Date(s):

F. SUPPORTING DATA:

Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant;
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  ☒ Office concurs with data sheets/delineation report.
  ☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: 17090010
  ☐ USGS NHD data.
  ☒ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite quad name: OR-SHERWOOD
☐ USDA Natural Resources Conservation Service Soil Survey. Citation:
☐ National wetlands inventory map(s). Cite name:
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps:
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date):
  or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of 03 Sept. 2015
Regulatory Project Manager
(REQUIRED)

Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining the signature is impracticable)

G. EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.