

**AGREEMENT FOR ENGINEERING SERVICES  
(Yamhill County and WHPacific, Inc.)**

THIS AGREEMENT ("Agreement") is made effective the last date set forth adjacent to the signatures of the parties below between **Yamhill County**, a political subdivision of the State of Oregon, acting through its county engineer and Board of Commissioners (referred to as "County" in this Agreement) and **WH Pacific, Inc.** ("Contractor"), ~~an Alaska corporation~~, for the engineering services described herein (referred to in this Agreement as the "Project").

**STATEMENT OF PURPOSE AND IDENTIFICATION OF AGREEMENT DOCUMENTS**

- A. County has budgeted funds to perform the Project. County conducted a competitive selection process in 2011 to select the best qualified Respondent to perform consulting engineering and preliminary design engineering for the Project. This Agreement is made to allow Contractor to provide project management, final design and engineering services, permitting and related tasks and to specify the mutual obligations of County and Contractor for completion of the Project.
- B. This Agreement includes by reference the Scope of Work and Fee Schedule attached hereto as Exhibit A.

**AGREEMENT:** In consideration of the mutual covenants contained below, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, County and Contractor hereby agree as follows:

1. **Scope of work.** The Contractor will commence and complete the Project in strict accordance with this Agreement and with the Scope of Work and Fee Schedule attached hereto as Exhibit A, which is incorporated herein by reference. The Contractor acknowledges receipt of all relevant documents in existence at the date it executed this Agreement. Contractor's assigned person-in-charge of the Project must be a licensed engineer, as required by Oregon Revised Statutes. Contractor represents to County that Contractor has made a reasonable inspection of the Project site and is reasonably familiar with the Project site conditions that might affect Contractor's performance of the Project pursuant to this Agreement.
2. **Agreement performed at Contractor's expense as Independent Contractor.** The Contractor will furnish all of the materials, supplies, tools, equipment, labor, and other services necessary for the completion of the Project as described in the Agreement documents. The Contractor is an Independent Contractor under this Agreement.
3. **Commencement and completion date.** The Contractor will commence the work required by the Agreement documents within 7 calendar days after the County's approval of this Agreement and will complete the same no later than February 15, 2019 unless the completion date is extended or otherwise modified by written notice or executed Change Order signed by both parties.

4. **Termination.** County may terminate this Agreement if the Contractor fails to comply with a material term of this Agreement, or for any reason considered to be in the public interest. If this Agreement is terminated, the County will pay for all work accepted by the Supervisor prior to termination.

5. **RESERVED**

6. **Compensation; Retainage.** The Contractor agrees to perform all of the work and services described herein and comply with the terms as set forth herein, provided, however, that the maximum amount due Contractor for completion of the Project Scope of Work is \$95,394.00, unless modified by written Change Order signed by both parties. Payment shall be made in monthly progress payments for work and services accepted by the Supervisor, subject to a 5% retainage. Upon satisfactory completion of all Project tasks as described in Exhibit A the Contractor shall notify the Supervisor in writing that Contractor has completed performance under this Agreement and shall request payment of applicable retained amounts. Upon receipt of written notice, Supervisor will review the Project work and services completed to date and, if acceptable, the Supervisor shall authorize payment of applicable retained amounts.

7. **Incorporation of statutory provisions required for public contracts.** The Contractor certifies it shall comply with all applicable Public Contract Laws to including, but not limited to, ORS 279B.200 through 279B.240 and ORS 279C.500 through 29C.545 and 279C.580(3) and (4). ORS 279B.200 through 279B.240 and ORS 279C.500 through 279C.545 and ORS 279C.580(3) and (4) are incorporated into this Agreement by reference.

8. **Workers' compensation.** The Contractor, its subcontractors, if any, and all employers working under this Agreement are subject employers under the Oregon Workers' Compensation Law and shall comply with ORS 656.017, which requires them to provide workers' compensation coverage for all their subject workers.

9. **Certification of compliance with laws.** The Contractor certifies, under penalty of perjury, that the Contractor is not in violation of any federal, state or local tax laws, codes or regulations applicable to the Project and that Contractor shall remain in compliance with all such laws, codes and regulations during the entire term of this Agreement. In addition, Contractor agrees that it has complied with the tax laws of the state of Oregon or a political subdivision of the state of Oregon, including ORS 305.620 and ORS Chapters 316, 317 and 318.

10. **Certification of reading and understanding of documents.** The Contractor certifies it has read and fully understands all Agreement documents and terms and conditions. The Contractor understands and acknowledges that in signing this Agreement the Contractor waives all rights to plead any misunderstandings regarding the same.

11. **Status of the Project Supervisor.** William A. Gille, Yamhill County Engineer, is the Project Supervisor (the "Supervisor"). The Supervisor or his designee shall perform technical inspections of work and shall have authority to stop the work whenever such stoppage shall be

necessary to insure proper execution of the Agreement. The Supervisor or his designee may reject all work and materials that do not conform to the Agreement and shall decide questions that arise in the execution of the work. The Supervisor has authority to reject or accept the work.

12. **Warranty Period.** Contractor represents that all work and services and workmanship provided to County pursuant to this Agreement shall be provided at the current industry standard for similar projects in Contractor's industry and that Contractor shall promptly remedy any failure in such work and services or workmanship.

13. **Prohibition of Discrimination.** In hiring employees for performance of work and services under this Agreement, no contractor, including but not limited to Contractor, no subcontractor or any person acting on their behalf shall by reason of race, religion, age, color, creed, physical handicap, sex or sexual orientation discriminate against a person who is qualified and available to perform work to which employment relates.

14. **Risk of Loss.** The risk of loss or damage to the subject matter of this Agreement arising from any cause whatsoever, including acts of God, shall be upon the Contractor until such time as the County has accepted the work as provided in this Agreement.

15. **Indemnification.** The Contractor shall indemnify, defend, save and hold harmless County and its officers, employees and agents from and against any suits, actions, legal or administrative proceedings, demands, claims, liabilities, fines, penalties, losses, injuries, damages, expenses or costs, including interest and attorney fees, in any way connected with any injury to any person or damage to any property arising out of or related in any way to Contractor or Contractor's subcontractors prosecution of work or services under this Agreement.

16. **Insurance.** Contractor, at its expense, shall obtain the following insurance coverage and keep them in effect during the entire term of this Agreement:

1. Workers Compensation Insurance in compliance with statutory requirements;
2. Comprehensive General Liability Insurance (including contractual liability and completed operations coverage) on an occurrence basis, with not less than \$2,000,000 per occurrence for bodily injury and property damage liability, with an annual aggregate limit of \$3,000,000;
3. Professional Liability Insurance, including Errors and Omissions coverage, with a per occurrence and aggregate limit of not less than \$1,000,000, to protect against all loss suffered by County or third parties, including financial and consequential loss, caused by error, omission, or negligent acts related to the Project work or services provided under the Agreement.
4. Commercial Automobile Liability Insurance, with a combined single limit, or the equivalent of not less than \$1,000,000 per occurrence, for bodily injury and property damage with respect to Contractor's vehicles, whether owned, hired, or non-owned,

assigned to, or used by Contractor in connection with the services provided under the Agreement;

The required insurance coverages shall be (i) with insurance companies admitted to do business in the state of Oregon and rated A or better by Best's Insurance Rating, and (ii) acceptable to County. Evidence of such insurance will be furnished to County before commencing Project work or services. The certificates of insurance shall indicate (a) the types of insurance coverage, (b) the identity of all persons or entities covered, (c) the amounts of insurance coverage, and (d) the period of insurance coverage. Any required insurance coverage shall provide that it may not be canceled except after at least 30 days written notice to County.

The Commercial General Liability and Commercial Automobile Liability shall (i) name County, its directors, officers, and employees as additional insured, (ii) name the State and its directors, officers and employees as additional insureds, (iii) provide that it is primary insurance with respect to the interests of County and that any insurance maintained by County is excess and not contributory, and (iv) include a cross-liability and severability of interest clause and a waiver of subrogation clause.

17. **Nonwaiver.** No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law. The failure of County to enforce at any time any of the terms of this Agreement, or to exercise any option which is provided, or to require at any time performance by Contractor of any of the provisions, shall in no way be construed to be a waiver of such provisions, nor in any way to affect the validity of any part of this Agreement, or the right of County to thereafter enforce each and every provision.

18. **Contractor's Representation.** Contractor, by entering into this Agreement, represents that its bid for this project is made without connection with any person, firm or corporation making or refraining from making a bid for the same or similar project and was in all respects fair and without collusion or fraud.

19. **Severability.** Should any clause or section of this Agreement be declared by court to be void or voidable, the remainder of this Agreement shall remain in full force and effect.

20. **Dispute resolution through mediation and arbitration.** Any dispute between the parties to this Agreement shall be resolved according to the following process:

(a) The parties first shall submit to mediation of the dispute to be conducted by a mutually acceptable mediator. If the parties cannot agree on a mediator, they shall request a mediator to be appointed by the U.S. Mediation and Arbitration service in Portland, Oregon, or its successor. The mediator's charges and expenses shall be borne equally by the parties. All other expenses, including attorney fees and costs, shall be borne exclusively by the party requiring the service or for which payment is to be made.

(b) If the dispute is not resolved in mediation, the parties shall then submit the dispute to binding arbitration. Arbitration shall be conducted in accordance with the rules set forth in the Oregon International Commercial Arbitration and Conciliation Act, ORS 36.450 to 36.558, 2007 replacement part. The decision of the arbitrator shall be final and binding on the parties. The party that does not prevail, as determined by the arbitrator, shall pay the arbitrator's fees and expenses in arbitration. All other expenses, including attorney fees and costs, shall be borne exclusively by the party requiring the service or for which payment is to be made.

21. **Attorney fees and costs.** In the event that either party to this Agreement shall take any action, judicial or otherwise, to enforce or interpret any of the terms of this Agreement, each party shall be wholly responsible for its own expenses which it may incur in taking such action, including costs and attorney fees, whether incurred in a suit or action or appeal from a judgment or decree therein or in connection with any nonjudicial action.

22. **Applicable laws.** This Agreement is executed in the State of Oregon and is subject to Oregon law and jurisdiction in Yamhill County.

23. **Subcontractors.** The Contractor may not engage any subcontractor(s) to perform work under this Agreement without the express written consent of the County. If the County does grant consent, the Contractor covenants and agrees to bind any and all Subcontractor(s) for performance of work under this Agreement. Any reference to Contractor shall include any and all Subcontractor(s) ad infinitum.

24. **Written changes required.** The rights and duties under this Agreement shall not be modified, delegated, transferred, or assigned, except upon written signed consent of both parties.

25. **Successors bound.** This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

26. **Incorporation.** The introductory paragraph and recitals appearing at the beginning of this Agreement are hereby incorporated into and made a part of this Agreement as if fully set forth herein.

27. **Counterparts.** This Agreement may be executed by facsimile or electronically and in counterparts which together form one legal instrument.

THIS AGREEMENT CONSTITUTES THE ENTIRE AGREEMENT BETWEEN THE PARTIES. NO WAIVER, CONSENT, MODIFICATION OR CHANGE IN TERMS OF THIS AGREEMENT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY BOTH PARTIES. SUCH WAIVER, CONSENT, MODIFICATION OR CHANGE, IF MADE, SHALL BE EFFECTIVE ONLY FOR THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. THE CONTRACTOR, BY SIGNATURE OF ITS AUTHORIZED REPRESENTATIVE, HEREBY ACKNOWLEDGES THAT HE/SHE HAS READ THIS

AGREEMENT, UNDERSTANDS IT, AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed on the date indicated by their duly authorized officials, this Agreement in duplicate, each of which shall be deemed an original on the date executed by all parties.

WHPacific, Inc.

YAMHILL COUNTY, OREGON

By: [Signature]  
(signature)  
Date: 1/11/19

[Signature]  
RICK OLSON, Chair  
Date: 1-11-19

DANIEL BOWLINGHOUSE  
(printed name)

[Signature]  
JOHN PHELAN  
Yamhill County Road Director  
Date: 1-11-19

Title: OPERATIONS MANAGER

Fed. Tax I.D. No: 20-3966470

APPROVED AS TO FORM

Contractor  
Registration No: \_\_\_\_\_

By: [Signature]  
CHRISTIAN BOENISCH,  
Yamhill County Legal Counsel

Exhibit A  
Scope of Work/Fee Schedule  
(see attached)

### Contract Amendment 1.1

Yamhill County

Project Manager: Bill Gille  
2060 Lafayette Ave  
McMinnville, Oregon 97128  
503-434-7515  
503-472-4068 fax  
[gilleb@co.yamhill.or.us](mailto:gilleb@co.yamhill.or.us)

WHPacific, Inc.

Project Manager: Andy Bowen, PE  
9755 SW Barnes Road, Suite 300  
Portland, Oregon 97225  
503-372-3560  
503-526-0775 fax  
[abowen@whpacific.com](mailto:abowen@whpacific.com)

Background

This scope of work is for final design including permitting for the Laughlin Road over Stag Hollow Creek Bridge replacement. It is understood that Yamhill County has assumed project management responsibility for this project with WHPacific providing assistance with project management, design and engineering services, permitting, and other tasks.

The work scope has been defined for the entire project through design completion and bid. This is in addition to and follows completion of work in contract Board Order No. 11-131, which primarily focused on the 2011 contract design and permitting activities. Tasks to be completed by WHPacific are set forth in this work scope, and they will be further defined during the initial stage of the project. They may be modified as work progresses.

The improvements for this section of Laughlin Road is targeting construction commencement in early 2019.

Project Understanding

Yamhill County is moving forward with the final design and permitting for all required public roadway improvements to construct a replacement bridge on Laughlin Road over Stag Hollow Creek. This phase of the project will update the existing design and plans developed in 2011 by WHPacific, Inc.

This project is the continuation of a design initiated by WHPacific, Inc in 2011. This phase of the project will complete the final design of the project while updating the existing design to the current AASHTO and Oregon DOT design standards.

Existing Conditions

**Stag Hollow Creek (Laughlin Road) Bridge** is structurally deficient and functionally obsolete. The existing bridge is a precast concrete slab supported by a number of steel and timber piles, pile caps, head walls and cross members. The existing bridge is approximately 20 feet long by 24 feet wide. There have been a variety of methods used to aid in the support of the bridge after the original timber members decayed.

Laughlin Road is a rural two lane county road that serves mostly agriculture and residential traffic. The bridge is in a horizontal curve with a right-of-way (ROW) width of 62 feet and the bridge and roadway are not centered.

**Proposed Improvements**

WHPacific will design the following roadway and bridge improvements:

The 2011 design intended to reuse existing 21 inch precast prestressed slabs that were initially designed in 1999 for the ODOT Spencer Creek Bridge detour structure in Lincoln County (US 101, MP 133.86). The slabs were designed per AAHSTO Standard Specification for Highway Bridge, 16<sup>th</sup> Ed, 1996 and all interim specification. The design live load was HS-25 with a 2 inch ACWS.

WHPacific, Inc. was initial under contract in 2011 to perform design on the project. The project was stopped near the design completion in 2011 due Yamhill County's loss of construction funding.

This amendment to the original contract will result in revising and finalizing bid documents based on the 2011 documents. This will also include reviewing environmental permit requirements and obtaining a new permit. The design will be completed per the AASHTO LRFD Bridge Design Specification, 8<sup>th</sup> Ed, 2017.

The new bridge will utilize 8 of the ODOT Spencer Creek Bridge detour structure 21in precast prestressed slabs. The new bridge will be 32 feet out-to-out width.

One objective will be to minimize the environmental impacts to Stag Hollow Creek. WHPacific will keep the same footprint of the previous design and confirm the final design meets the current design code and parameters.

The project will utilize ODOT standard plans and Special provisions. Yamhill County will complete the construction bid and award process.

***Project Assumptions***

1. All construction will occur within the existing ROW. No additional ROW is required.
2. This scope of services includes project management and team meetings, surveying, civil engineering, bridge design, permitting, and administration services through the bid period. We have assumed for budgeting purposes that the project design and bid phase duration will be completed in January 2019, assuming an NTP of December 20 2018. Expected bid date is early February 2019.
3. It is understood that WHPacific will contract directly with subconsultants for the Geotechnical/Pavement Engineering as required for this project.
4. A revised wetland delineation is included. Wetland permitting for impacts created by the bridge replacement is not included or anticipated to be needed.
5. No Hydraulic Studies are included or anticipated to be needed. It is expected that the existing Hydraulic Report dated Aug 23, 2011 by WHPacific, Inc will meet the "No-Rise" requirements.
6. No wetland quality treatment facility will be required as the expected impervious area is expected to be less than 1000SF
7. Geotechnical reports and recommendations will include earthwork, retaining walls, and the bridge replacement on Laughlin Road.

8. The scope of services does not include construction engineering, inspection, management and support. Construction engineering services will be considered in a future contract amendment.

**WORK BREAKDOWN STRUCTURE (WBS)**

Provide engineering design, storm drainage/detention and water quality design, geotechnical engineering, environmental studies and reports. This includes completion of work through the final design and bid phase. All work performed under this scope of work will be done so in accordance with all applicable federal, state, and local design standards. The deliverables are listed for each task.

The design services work scope outlined is as needed to complete final stamped and signed construction bid documents including plans, specifications, and estimate for all public roadway improvements described herein. The following tasks are amended and revised from the original agreement.

Task 1.0	Project Management and Quality Assurance
Task 2.0	Survey
Task 3.0	Hydraulic Studies (No Work)
Task 4.0	Environmental
Task 5.0	Design
Task 6.0	Bid Services
Task 7.0	Contingencies

**CONSULTANT RESPONSIBILITIES**

**TASK 1.0 Project Management and Quality Assurance – Update Required**

**1.1 Project Management and Coordination**

The duration of the project design through the bid period is assumed to be approximately from December 20, 2018 through February 2019. Construction is assumed to start in Spring 2019.

- Provide management, coordination and direction to the project team for completing the project on time and on budget. This includes coordination with the County’s representatives. Coordinate internal team activities, as well as coordinating project activities with other consultants.
- Track project costs and budgets on a project basis.
- Coordinate with government agencies as needed for design and permitting.

**Project Team Meetings**

Hold two project meetings with key team members and representatives from the County and other government agencies and/or others as needed to address and resolve project issues as they are encountered. Meetings below assume one hour each for the number of design staff defined below.

- County/Team Meeting – Organize and attend kickoff project meetings to coordinate the overall design of the project and to address project design issues. Assume 3 people to attend one meeting.

- Internal Design Team Meeting – Conduct additional project design team kickoff meeting to convey project details design requirements.

#### **Quality Control Management and Review**

Establish a Quality Control program that will document quality control reviews with identified review periods and reviewers established. Conduct quality control reviews of final submittal prior to review by the County. Established deliverable reviewers will review all deliverables using the Quality Control program review and sign-off process before submission to the County.

#### **1.2 Project Invoices and Progress Reports**

Due to the short project timeline, WHPacific, Inc. shall not prepare a status report or update the schedule.

WHPacific, Inc. shall prepare monthly invoices in a format approved by Yamhill County.

#### Task 1 Deliverables:

*Summary Reports to be submitted with Final invoices, broken down to subtask level*

*Agency Kickoff Meeting Records*

*Final invoice*

#### **TASK 2.0 Survey – Update Required**

Consultant shall update the previous survey of the Project area as described herein of this SOW unless otherwise noted in specific tasks. Consultant shall adhere to the standards stipulated by the Oregon Revised Statute (“ORS”) 672.047, subsections (1) through (7). Consultant's Professional Land Surveyor, registered in the State of Oregon, shall review and stamp as “Approved” all survey related deliverables and shall be responsible for all land surveying Services including conformance to all state statutes pertaining to survey and land boundary laws under this SOW. These include, but are not limited to, the following state statutes: ORS Chapters 92, 93, 209 and 672.

#### **Limits of Consultant Survey**

Consultant shall provide surveying services for a portion of Stag Hollow Creek on Laughlin Road, approximately 1,100 feet northeast of the intersection of Yamhill Newberg Highway (OR 240) and Laughlin Road. Survey will include verification of topographic data (dtm, points, notes, etc.) previously obtained by WHPacific and based on survey control also set by WHPacific. Survey will also consist of preparing a Record of Survey, showing the new centerline alignment, control, and right-of-way monumentation.

#### **2.1 Survey Control**

The purpose of this Task is to provide the means by which a project can be located relative to horizontal and vertical datum, map projection, and coordinate systems.

#### **Horizontal Control**

Consultant shall verify and set horizontal control according to County standards, published datum held shall be Oregon State Plane – North Zone, EPOCH 2010.00

#### **Vertical Control**

Consultant shall verify and set Project vertical control based on current County standards or other datum as approved by County.

## 2.2 Recovery and Retracement

The purpose of this task is to identify the location of the existing Centerline(s), R/W lines, Property line(s) (Resolve), to perpetuate the location of the monuments found and to document the control used for this Project area. These tasks must address the requirements of ORS 209.150 and 209.155 and other survey related statutes.

### Research

WHPacific shall perform data research as necessary to prepare for and support all Project activities, and to produce Project maps and reports as called for in subsequent tasks.

### Existing R/W & Boundary Resolution

WHPacific shall resolve the R/W centerlines alignments and R/W lines along Laughlin Road up and down station from the bridge center as needed.

## 2.3 Verify Topographic Data and Basemap

The purpose of this Task is to verify the existing topographic features and basemap used to design this Project. This portion of the survey shall be limited to predetermined critical verification shots near the location of the proposed abutments and the thread of stream and ordinary high-water mark.

## 2.4 Verify Digital Terrain Model ("DTM")

WHPacific shall verify a three-dimensional digital terrain surface using verification topographical data collected within Task 2.3 of this SOW. WHPacific shall verify the DTM that meets County criteria for surface triangulation.

### Task 2 Deliverables:

*Survey Control Plan to be used by County and Contractor*

*Topographic Survey of area (signed hard copy and digitally in AutoCAD 2016 or newer)*

*Digital Terrain Model to be produced in AutoCAD 2016 or newer*

*Right-of-way dedication descriptions and exhibits*

## **TASK 3.0      Hydraulic Studies (No Work)**

No additional hydraulic analysis or study is anticipated for the completion of the finalization of design and bid phase. The existing hydraulic study and no-rise certificate will be utilized.

### Task 3 Deliverables:

*None*

## **TASK 4.0      Environmental – Update Required**

### **4.1 Wetland Delineation**

Assess current wetland conditions along Stag Hollow Creek then document and delineate any changes to the wetlands and "other waters" on the property. Delineation will use the standard 1987 Corps of Engineers methodology and the Western Mountains, Valleys and Coast Regional Supplement. Collect submeter GPS data of all wetland boundaries and Ordinary High Water Lines (OHWL).

**4.2 Endangered Species Documentation**

Prepare an updated Wetland Delineation Report and map to Oregon Department of State Lands (DSL) standards, and DSL cover sheet. Submit for DSL concurrence. Cost estimate includes a \$437 cost for DSL report review.

We assume that no site review will be required for delineation concurrence from DSL. If a site review is requested, a separate cost estimate will be provided.

**4.3 Permitting**

WHPacific will coordinate with Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE) staff to determine if a Section 404 permit or Fill/Removal permit will be necessary based on the updated delineation information. WHPacific will prepare and submit a memorandum to DSL and USACE describing substantiating that there will be no "regulated activities" within the wetlands and waters (USACE), or that the work is otherwise exempt from regulation under DSL rules (<50 cubic yards of fill or removal). The lack of impact with the 2011 Joint Permit Application and agency correspondence will be attached. This memorandum will request concurrence with the 2011 finding of "no permit needed". The memorandum will include updated project maps and description.

Task 4 Deliverables:

*Wetland Delineation Report*

*GPS Boundaries and OHWLs*

*Memorandum of no impact, or Joint Permit Application (USACE and DSL)*

**TASK 5.0      Design - Update**

**5.1 Preliminary Bridge and Roadway Design**

No update required

**5.2 Cost Estimate**

No update required

**5.3 Finalize Design**

WHPacific, Inc. will finalized the construction plans from the 2011 contract and update the design to the current design standards noted earlier in this SOW.

WHPacific, Inc. will provide 100% unstamped set of plans and construction cost estimate for review by the County before the final stamped set of documents to be used for construction and bidding.

Anticipated Work Task:

- Site Visit to inspect the Spenser Creek Girders
- Confirm Spencer Creek Girders design meets HL-93 Design Loading
- Update the foundation from a micropile design to a pipe pile design per the geotechnical engineers recommendation
- Update the bridge barrier design and detailing to meet current design standards.
- Update the roadway design as needed with any traffic and bridge barrier updates.
- Update the sheet pile retaining wall design.

Task 5 Deliverables:

*100% unstamped construction plan set, 11x17 size (1 paper copy, 1 electronic copy)*

*100% unstamped construction specification and special provisions (1 paper copy, 1 electronic copy)*

*100% unstamped engineer's estimate, letter sized (1 paper copy, 1 electronic copy)*

*Final stamped construction plan set, 11x17 size (1 paper copy, 1 electronic copy)*

*Final stamped construction specification and special provisions (1 paper copy, 1 electronic copy)*

*Final engineer's estimate, letter sized (1 paper copy, 1 electronic copy)*

**TASK 6.0      Geotechnical Investigation - New**

**6.1 Subsurface Investigation**

The boring from Foundation Engineering, Inc's previous investigation was located along the east side of the proposed bridge in the southern one-third of the span. Foundation Engineering proposes to drill one exploratory boring near the planned north abutment to supplement the original boring. The boring will be advanced with a truck-mounted drill rig using mud-rotary drilling techniques. The anticipated boring depth is  $\pm 50$  feet, however, the actual depth may be adjusted in the field depending on the subsurface conditions encountered.

Sampling is planned at 2½-foot intervals to a depth of  $\pm 20$  feet and at 5-foot intervals thereafter. Disturbed soil samples will be taken with a split-spoon sampler as part of the Standard Penetration Test (SPT). Relatively undisturbed samples of the fine-grained soil may also be obtained by pushing thin-walled Shelby tubes. The samples will be retained for possible laboratory testing. Upon drilling completion, the borehole will be backfilled in accordance with Oregon Water Resources Department guidelines.

Drilling will be completed in the southbound travel lane to avoid conflicts with overhead utilities. A temporary lane closure will be required. Traffic control will be provided by a flagging subcontractor in accordance with the ODOT Temporary Traffic Control Handbook (2011). The traffic control will include two flaggers, signs, and cones. Foundation Engineering has assumed a County permit will not be required for drilling.

**6.2 Laboratory and Field Testing**

Laboratory testing may include moisture content, percent fines, and/or Atterberg limits tests on selected samples to classify the foundation soils and estimate their engineering properties. Field vane measurements will be completed on Shelby tube samples (if retrieved) to estimate the undrained shear strengths of fine-grained soils. Resistivity and pH testing will be completed to help evaluate the corrosiveness of the foundation soils.

**6.3 Analysis and Engineering Report**

Foundation Engineering will complete analysis to provide seismic design parameters, evaluate the liquefaction hazard, and design pile foundations. Lateral earth pressure recommendations for abutment walls and sheet pile walls will also be provided. The County plans to use a standard pavement section for the approaches. Therefore, pavement design is not required.

The findings of the investigation will be summarized in a Foundation Report. The report will be completed in general accordance with the current ODOT Foundation Design and Report Writing Guidelines, but it is assumed no ODOT review is planned. The report will include the logs for the exploratory borings and a summary of the field and laboratory test results. Recommendations for foundation design and construction will be provided.

The report will address the following:

- Site Conditions
  - Surface and subsurface conditions
  - Ground water conditions
- Seismic Evaluation
  - AASHTO/ODOT response spectra
  - Summary of local faults
  - Liquefaction hazard evaluation
- Pile Foundation Recommendations
  - Recommended pile section and tip protection
  - LRFD factored and nominal axial resistances
  - Nominal uplift resistance
  - Minimum and estimated tip elevations and estimated lengths
  - Recommended pile hammer field energy range
- Bridge Abutment Walls
  - Lateral earth pressures
  - Backfill recommendations
- Sheet Pile Walls
  - Lateral earth pressures
  - Backfill recommendations

#### **6.4 Foundation Data Sheet**

Foundation Engineering will prepare a Foundation Data Sheet (FDS) summarizing the boring information. WHPacific will provide a base map for the FDS in AutoCAD LT2018 format.

#### Task 6 Deliverables:

*Foundation Report*

*Foundation Data Sheet*

#### **Task 7.0 Bid Support - New**

##### **7.1 Pre-Bid and Pre-construction Support**

- Provide engineering and design support during the bid phase.
- If there is a pre-bid meeting, attend and provide technical support throughout the bidding process.
- Provide interpretation of construction plans and specifications
- Provide addendum support, as required.
- Attend the Pre-Construction meeting and provide support throughout the preconstruction process

#### Task 7 Deliverables:

*Addendum documents*

#### **Task 8.0 Additional Services - Contingency**

Perform additional services which are not covered under the above tasks as directed in writing by the County's Project Manager. Contingency tasks for this project may include, but are not limited to:

### 8.1 Survey

- **Topographic Data and Basemap (CONTINGENCY TASK)**

The purpose of this task is to collect the existing topographic features and create a basemap of an area(s) outside the previously collected topographic area by WHPacific. This area(s) shall be defined and approved by design engineer and Yamhill County prior to commencement of this task.

- **Digital Terrain Model (“DTM”) (CONTINGENCY TASK)**

WHPacific shall create a three-dimensional digital terrain surface using the previously collected topographic features and collected topographic features as outlined in Task 2.3. The model shall be created to meet County criteria for surface triangulation.

- **R/W Descriptions and sketch Maps**

WHPacific shall use the R/W resolution completed in Task 2.2 and the Engineers design centerline to develop the descriptions and sketch maps for 2-4 parcel(s), according to ORS Chapter as stated above. This task shall include the review of a previously created dedication area and the preparation of additional dedications due to Yamhill County Engineering design standards for roadway widths.

### 8.2 Environmental Permitting (JPA)

WHPacific will prepare a Wetland Permit Application. Application will include a project description, wetland description and functional assessment, purpose and need statement, volumes of fill/removal within wetlands, site plans and cross sections. Application will also include an alternatives analysis looking on-site alternative designs that would minimize wetland impacts, to support the proposed development alternative.

WHPacific will prepare a Wetland Permit Application, if an impact is identified, for submittal to DSL and USACE. Application will include a project description, wetland description and functional assessment, purpose and need statement, volumes of fill/removal within wetlands, site plans and cross sections. Application will also include an alternatives analysis looking at other potential sites for the project in the market area, and on-site alternative designs that would minimize wetland impacts, to support the proposed development alternative.

Compensatory wetland mitigation will be through purchase of mitigation credits from a local mitigation bank, if possible. If mitigation credits are not available, on-site wetland mitigation development services can be provided under a separate cost estimate.

Task 8.2 Deliverables:

*Joint Permit Application (USACE and DSL)*

**Design Scope of Work  
Stag Hollow Creek (Laughlin Road) Bridge  
Yamhill County Board Order Project No. 11-131**

**Final bid document preparation**

The final design package will be prepared for the entire project limits. The work scope has been prepared assuming only one bid package will be prepared.

Return correspondence to:

Andy Bowen  
Project Manager  
WHPacific  
9755 SW Barnes Road, Suite 300  
Portland, OR 97225  
(503) 372-3560 (phone)  
(503) 526-0775 (fax)

Project Steg Hollow Creek (Laughlin Road) Bridge - Yamhill Co: Board Order Proj. No. 11-31 - ADDENDUM  
 Date: January 9, 2019

Task No.	Task Title	Project Manager	Sr. Project Engineer/ QA/QC	Roadway Engineer	Sr. Structural Engineer	Structural Designer	CADD / Designer	Environmental Scientist	Sr. Surveyor (Office)	Project Surveyor (Office)	Survey Crew Chief (Field)	Project Admin.	Total Labor Hours	Total Direct Labor Cost	Expenses	Total WHPacific Cost	Total Subconsultant Cost	Total Budget
1.0	Project Management and Quality Assurance	A. Bowen																
	1.1 Project Management and Coordination		4	4	2	2		4	4				32	\$ 5,080		\$ 5,080	\$ -	\$ 5,080
	1.2 Project Invoices and Progress Reports		4									6	10	\$ 1,252		\$ 1,252	\$ -	\$ 1,252
	Task 1 Subtotal =		16	4	2	2	0	4	4	0	0	6	42	\$ 6,342		\$ 6,342	\$ -	\$ 6,342
2.0	Survey																	
	2.1 Survey Control												18	\$ 1,854	\$ 500	\$ 2,454	\$ -	\$ 2,454
	2.2 Recovery & Retreatment											48	\$ 5,400		\$ 5,400	\$ -	\$ 5,400	
	2.3 Verify Topo Data & Basemap											26	\$ 3,000		\$ 3,000	\$ -	\$ 3,000	
	2.4 Verify Digital Terrain Model											18	\$ 2,304		\$ 2,304	\$ -	\$ 2,304	
	Task 2 Subtotal =												108	\$ 12,558	\$ 500	\$ 13,158	\$ -	\$ 13,158
3.0	Hydraulic Studies (No Work)																	
4.0	Environmental																	
	4.1 Wetland Delineation							14					14	\$ 1,876	\$ 200	\$ 2,076	\$ -	\$ 2,076
	4.2 Wetland Documentation							27				2	29	\$ 3,782		\$ 3,782	\$ -	\$ 3,782
	4.3 Permitting							28				2	30	\$ 3,916		\$ 3,916	\$ -	\$ 3,916
	Task 4 Subtotal =							69				4	73	\$ 9,574	\$ 200	\$ 9,774	\$ -	\$ 9,774
5.0	Design																	
	5.1 Preliminary Bridge and Roadway Design												230	\$ 27,226		\$ 27,226	\$ -	\$ 27,226
	5.2 Cost Estimate												230	\$ 27,226		\$ 27,226	\$ -	\$ 27,226
	5.3 Finalize Design												230	\$ 27,226		\$ 27,226	\$ -	\$ 27,226
	Task 5 Subtotal =												690	\$ 81,678		\$ 81,678	\$ -	\$ 81,678
6.0	Geotechnical Investigation																	
	6.1 Subsurface Investigation												7	\$ 923		\$ 923	\$ -	\$ 923
	6.2 Laboratory and Field Testing												7	\$ 923		\$ 923	\$ -	\$ 923
	6.3 Analysis and Engineering Report												7	\$ 923		\$ 923	\$ -	\$ 923
	Task 6 Subtotal =												21	\$ 2,769		\$ 2,769	\$ -	\$ 2,769
7.0	Bid Support																	
	7.1 Pre-Bid and Pre-construction Support												18	\$ 2,914		\$ 2,914	\$ -	\$ 2,914
	Task 7 Subtotal =												18	\$ 2,914		\$ 2,914	\$ -	\$ 2,914
	Total Labor Hours		34	30	51	82	68	73	18	58	42	10	478	\$ 59,639	\$ 700	\$ 60,339	\$ 17,091	\$ 77,430
	Total Costs	\$ 6,460	\$ 2,280	\$ 3,060	\$ 8,313	\$ 8,364	\$ 8,460	\$ 9,782	\$ 2,592	\$ 7,308	\$ 4,200	\$	\$ 84	\$ 77,603	\$ 700	\$ 78,303	\$ 17,091	\$ 95,394.00
8.0	Additional Services - Contingency Items																	
	8.1 Survey												36	\$ 3,792		\$ 3,792	\$ -	\$ 3,792
	Topographic Data & Basemap												36	\$ 4,468		\$ 4,468	\$ -	\$ 4,468
	Met Data												18	\$ 2,304		\$ 2,304	\$ -	\$ 2,304
	RW Descriptions & Sketch Maps											2	55	\$ 7,400		\$ 7,400	\$ -	\$ 7,400
	8.2 Environmental - Permitting (UPA)																	
	Task 8 Subtotal =												146	\$ 17,964		\$ 17,964	\$ -	\$ 17,964
	Total Labor Hours		34	30	51	82	68	127	24	108	78	12	624	\$ 77,603	\$ 700	\$ 78,303	\$ 17,091	\$ 95,394.00
	Total Costs	\$ 6,460	\$ 2,280	\$ 3,060	\$ 8,313	\$ 8,364	\$ 8,460	\$ 17,018	\$ 3,456	\$ 13,008	\$ 7,800	\$ 84	\$ 84	\$ 77,603	\$ 700	\$ 78,303	\$ 17,091	\$ 95,394.00

