Construction and Engineering Services for Underground Construction: PacWave South

RFP #2020-00182

ADDENDUM NO. 9

ISSUE DATE: March 6, 2020

CONTRACT ADMINISTRATOR:
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This Addendum is hereby issued to inform you of the following revisions and or clarifications to the above-referenced RFP and/or the Contract Documents for the Project, to the extent they have been modified herein. Any conflict or inconsistency between this Addendum and the Solicitation Document or any previous addenda will be resolved in favor of this Addendum. Proposals shall conform to this Addendum. Unless specifically changed by this Addendum, all other requirements, terms and conditions of the Solicitation Document and or Contract Documents, and any previous addenda, remain unchanged and can be modified only in writing by OSU. The following changes are hereby made:

MODIFICATIONS:

Item 1 – Remove and replace the first paragraph of the section 3.2 'Introduction' with the following: (Note: OSU anticipates release of the Attachment D 'Sample Design-Build Agreement' by addendum by 03/17/2020.)

OSU is seeking proposals from qualified, experienced firms to provide construction and engineering services for a set of terrestrial and marine Horizontal Directional Drill ("HDD") bores and associated underground construction south of Newport, Oregon. The selected Design Build ("D-B") Contractor will be responsible for the design, permitting, coordination, construction, start-up, testing and commissioning and overall management of the work.

The D-B Contractor and its team must be skilled in developing schedules, preparing design documents, preparing construction estimates, performing value engineering, understanding construction methods and techniques, performing constructability reviews, sequencing of work, executing that work while coordinating and working around existing plant operations, and coordinating and communicating the activities of the team through the Design and Construction phases to all members of the project team, including the owner and the construction team.

The initial contract will be awarded for the Design Phase Services only for the proposed fee with Construction Phase Services being added via a Pricing Amendment. Compensation will be based upon certain fees and reimbursable costs, as set forth in the Sample D-B Contract attached, including use of a Pricing Amendment and the form thereof included with the Sample D-B Contract.

Design Phase Services include, but are not necessarily limited to, preliminary design and conceptual studies, schematic design, design development, constructability reviews, value engineering, cost estimating, development of phasing programs and development of the Pricing Amendment(s).

Related contracting provisions, which will serve as the basis for the final agreement, are contained in Attachment D 'OSU Sample Design-Build Agreement.'

- During the initial stage of the Design Phase, the D-B Contractor's team will deliver the Preliminary Design Deliverable. D-B Contractor will complete schematic design and produce associated documents – all with periodic review and approval by OSU staff. Expected deliverables during this stage include, but are not limited to:
    - o Approximately 25-35% complete Drawings and Specifications o Product Cut Sheets
    - o Expected Performance Calculations
    - o Expected Construction Cost via updated Estimated Pricing Amendment Sum(s) o Updated Design Schedule(s)
    - o Expected Construction Schedule(s)

- During the intermediate stage of the Design Phase, D-B Contractor's team will deliver its Final Design Deliverable. D-B Contractor will complete design development and prepare associated documents – all with periodic review and approval by OSU staff. Expected deliverables during this stage include, but are not limited to:
    - o Approximately 50-60% complete Drawings and Specifications o Product Cut Sheets
    - o Design Calculations
    - o Performance Calculations
    - o Updated expected Construction Cost via updated Estimated Pricing Amendment Sum(s)
    - o Updated expected Construction Schedule

- The final stage of a Design Phase commences when OSU approves of a Final Design Deliverable. D-B Contractor will then prepare the applicable Pricing Amendment Documents and the applicable Pricing Amendment. Expected deliverables during this stage are:
    - o Pricing Amendment Documents (65% or greater completion)
    - o Pricing Amendment for the management, permitting, construction and commissioning of the Work including all required close-out and documents Including Construction Schedule, Pricing Agreement, Qualifications and Assumptions, etc.
    - o All applicable documents sealed by licensed professionals in the appropriate discipline as and when necessary for permitting, approvals, and commencement of construction

OSU will use the General Conditions of the Contract for Design and Construction, attached to the D-B Agreement as the general conditions for the final agreement. The General Conditions, and any Supplemental General Conditions contained in the D-B Agreement Exhibits, shall apply to the work of all subcontractors and to the work of the D-B Contractor to the extent that they do not conflict with the D-B Agreement.

If for any reason the parties are not able to reach agreement on a Pricing Amendment, OSU will be entitled to obtain services from any other source available to it under the relevant contracting laws and OSU Standards and Policies. If OSU chooses not to continue the D-B Agreement beyond the completion of Design Phase Services, the D-B Contractor's compensation will be limited to the costs of the Design Phase Services actually earned, not exceeding any maximum not-to-exceed amount stated in the D-B Agreement.

The prospective D-B Contractor should note that OSU will also require as a part of Design Phase Services a full description of items that will be contained in the proposed Pricing Amendment and the activities that make up the proposed Pricing Amendment.

OSU will monitor the competitive processes used to award subcontracts by the D-B Contractor in accordance with the Sample D-B Agreement. The following minimum requirements will be used:

a. The D-B Contractor will solicit sealed bids or quotes from subcontractors according to the terms of the D-B Agreement in a manner consistent with the open and competitive nature of public procurement, taking into account industry practice, and make award decisions based on cost or, if not cost, on another identified alternative competitive basis as set forth in the D- B Agreement or as approved in advance by OSU. When there are single fabricators of materials or special packaging requirements for subcontractor work other than low price, advance approval of the alternative selection criteria by OSU will be required.

b. The D-B Contractor will use its best efforts to obtain at least three bids or quotes for the particular work to be subcontracted. OSU may make exceptions to this practice in advance of the procurement.

Design Standards. The design of the Work must follow OSU's Design Standards, including OSU's requirements for sustainable development.

Design-Build Methodology. OSU intends for the initial contract to include design-phase services only with construction services being added via an Early Work Amendment or Pricing Amendment.

Item 2 – The last bullet in the list at the end of Section 4.0 'Scope of Work' and repeating at the end of Attachment A 'Scope of Work' subsection 2 'Scope of Work,' is replaced with:

- Site restoration and parking lot paving work. However, upon completion of the underground construction activities included in this RFP, the D-B Contractor shall return all work sites to original condition prior to start of work on-site, complete all back fill and compaction, and remove all equipment and rubbish.

Item 3 – Add the following to Attachment A 'Scope of Work' subsection 6 'Boring and Conduit Site Work Completion:'

In order to simplify lines of responsibility, design of parking lot including finish paving and curbing in accordance with AASHTO and ODOT standards is added to the scope of this RFP. The Driftwood parking lot is listed as a highway rest area for Highway 101. D-B Contractor shall be responsible for design of all underground structures, back fill, compaction, grading, paving, drainage, curb installation and painting. Contractor shall install underground drainage features and perform all back fill and compaction work in accordance with the approved design.

On completion of site work, the parking lot shall be finished temporarily with gravel to allow re-opening of the parking lot to the public. Finish paving and curb installation will be performed by other PacWave contractors one to two years after, in accordance with the previous paving design.

Item 4 – Remove Attachment C: 'Cost Proposal' in its entirety, and any references thereof.

Item 5 – Remove Section 5.5 'Schedule' and replace as follows:

By March of 2020, OSU anticipates a formal determination from DOE to proceed to Budget Period 2 'Construction Phase' ("BP-2") of the PacWave Project. Any Notice to Proceed for work under the RFP is contingent on OSU receiving the formal determination from DOE to proceed with BP-2. If DOE's determination is to not proceed to BP-2, OSU reserves the right to cancel this solicitation or, if awarded, terminate the resultant Contract with the awarded D-B Contractor.

The Scope of Work under this RFP consists of a 1.) Design Phase; and a 2.) Construction Phase. Each phase shall

begin upon issuance of a Notice to Proceed ("NTP") in writing by OSU or as otherwise stipulated by OSU in writing. OSU anticipates NTP for the Design Phase to occur by June 2020. NTP for Construction Phase is expected at a time that allows: completion of all on-site work occurring at the OSU-owned property east of Highway 101 no later than April 1, 2021, and final completion of all work under the contract to occur within 10 consecutive months of, the later of the NTP issuance for Construction Phase or the first day of on-site Work defined as the date that Driftwood closes for public access.

Item 6 – Section 7.1 'Evaluation' subsection c. 'Second Stage Evaluation' is removed and replaced as follows:
c. Second Stage Evaluation:

OSU may choose to conduct a second stage evaluation the top ranked Proposers in the Competitive Range. Second stage evaluation may consist of one or more of the following: interviews, presentations, written discussions, site visits, demonstrations, reference checks, or best and final offers. Information regarding the chosen evaluation methods will be provided to the Proposers in the Competitive Range for each type of system. Interviews, if chosen as an evaluation method, will be prepared based on RFP responses. Specific interview questions will be provided at the time of notification.

Final scoring of the interviews or other second stage evaluation methods **will be separate and not cumulative** from the first stage evaluation. The evaluation committee will discuss the strengths and weaknesses of the finalists based on the results of the second stage evaluation. The committee will then rank those firms. Final ranking will be based on how well each finalist can meet the Project and OSU's needs as demonstrated in the finalist's response to questions or other evaluative methods. The finalist that has the highest overall ranking will be deemed the highest ranked Proposer.

The committee may consider any of the following criteria in the Second Stage Evaluation and give the criteria all or a percentage of the total points during the Second Stage of Evaluation:

1. Ability to Execute
   OSU's determination of Proposer's capability and capacity to implement the proposed Design in what OSU determines is an assured and timely manner.

2. Alternative Design and Approach:
   OSU's determination of innovative Design and Construction phase solutions to accomplish the scope of work in this RFP in a manner most advantageous to OSU. Considerations for determination include innovative solutions that yield safety, compliance, efficiency, effectiveness, timeliness, flexibility, and quality during the Design and Construction phases and for the life of the product, (e.g. value engineering concepts demonstrated).

3. Cost of Design Phase and Construction Phase as documented by Proposer's revised response to Attachment C: Proposal Cost Form(s), as requested or a Best and Final Offer. Additional Cost Proposals for Total Cost of Ownership may be requested for Second Stage Evaluations.

OPTIONAL REFERENCE CHECKS
OSU reserves the right to check the references provided by the Proposer as required by this RFP at any stage of evaluation. If the evaluation committee determines the interviewed finalists are too close to score, OSU has no recent experience working with a finalist, or if the consolidated scoring indicates a tie, the evaluation committee will check the references provided by the Proposer as required by this RFP in Attachment C. Information obtained from references will be used in the evaluation committee's final scoring and will be based on the evaluation committee's understanding of how well each firm can meet the needs of OSU.

Written notice of intent to award the Contract to the highest ranked Proposer will be provided to all Responsive Proposers, or an award may be made directly without notice of intent in those instances of a single Responsive Proposer.

If a Second Stage Evaluation of all Proposers does not produce an award that is in OSU's best interest, OSU may return to the first stage evaluation to advance additional Proposers to an additional Second Stage Evaluation.

a. Additional Stages of Evaluation:

If after completion of the second stage of evaluation, an award is not made, OSU may add another stage of evaluation using any of the methods outlined in the first and second stages of evaluation. Final scoring of any additional stages of evaluations will be separate and not cumulative of earlier stages of evaluation.

Item 7 – Section 7.2 'Evaluation Criteria' is removed in its entirety and replaced as follows: (Note: OSU anticipates release of the Attachment D 'Sample Design-Build Agreement' by addendum by 03/17/2020.)

Points will be given in each criteria and a total score will be determined. The maximum points available for each criterion and a description of each criterion are identified below.

Stage 1 Evaluation Criteria	**Points**
Experience and Capabilities	30
Qualifications	15
Capacity and Current Projects	10
Method, Approach and Equipment	30
Schedule of Operations	20
Cost	20
Safety Record and Safety Plan	10
Workforce Diversity Plan	15

Stage 2 Evaluation Criteria	**Points**
Interviews, Presentations, Demonstrations	50
References (Optional)	10

Stage 1 Evaluation Criteria:

1. **Experience and Capabilities**

   Provide information about your firm's experience and capabilities in performing the specific type of work described in this RFP, and your experience working in similar geologic and coastal conditions as found at the work site. Identify any projects you have undertaken in the region (e.g. Oregon coast). Provide a brief summary of no less than three underground construction projects similar to that described in this RFP, that your company has completed or are currently contracted to complete, including methods of execution and the equipment being used. Include experience for similar services on federally funded projects. Include similar information for all sub-contractors. Describe the team's experience preparing and delivering multiple bid packages as the Design- Build Contractor of a Design-Build project.

2. **Qualifications**

   Provide a brief description of your firm and your firm's overall qualifications related to the Design and Construction phases sought in this RFP. Provide an organization chart with names, title, and job classification of personnel and identify key personnel, along with sub-contractor key personnel as applicable, that will be assigned to perform work if awarded under this RFP. Please provide percentage

of time allocated for each team member to be assigned. If different personnel are to be involved in specific phases of the survey work, those personnel shall be listed separately. Indicate current availability and proposed percentage of involvement for this Scope and whether the proposed team has worked together on previous projects.

Identify your Design Phase Services team including the designers, engineers and other firms on your team that will be substantially involved in completing the design of this project, including sub-contractor key personnel. Identify your Construction Phase Services team that will be substantially involved in designing and constructing this project, including sub-contractor key personnel.

For the Design phase:

- Include proposed key personnel's past project experience, with specific examples and identify their roles in those projects.

- Indicate current availability, proposed percentage of project involvement per phase and related stages of each phase

- Include proposed key personnel's CV or resumes including their project experience and identify their roles in similar projects. If different personnel are to be involved in specific phases of the survey work, those personnel shall be listed separately.

- List relevant licenses within the State of Oregon for key personnel that will have responsibility for stamping or performing work.

3. Capacity and Current Projects

List the projects your firm is currently contracted for and at what stage the projects are, in terms of completion. Provide similar information for any sub-contractors. Also, include your firm's total dollar volume for each of the last five years.

4. Method, Approach and Equipment

Provide methodology describing how each item in Attachment A 'Scope of Work' will be implemented. The methodology must highlight different approaches or standards, if any, that proposer recommends for different aspects of the Scope. Proposers are encouraged to offer innovative solutions to completion of the on-site Construction Phase work at Driftwood within the required time-frame of ten consecutive months. On-site work at Driftwood begins on the date it becomes closed to public access.

Provide details and specifications of the proposed drilling rig and other equipment to be used for the Scope. The equipment proposed shall be that which the contractor considers appropriate to the requirements as described in the Scope of Work section (Attachment A). Manufacturer brochures should be included as supporting information. If different equipment will be used at different locations, these shall be specified separately.

Describe your team's approach to the Design Phase and Construction Phase work. Provide an assessment of the achievability of meeting the Design Phase criteria in the Construction Phase. Identify whether the team has partnered before and describe what has worked well and what hasn't on past projects.

Describe how the project could be phased/staged through both Phases. Include the team's approach to subcontractors. Provide detail of which trades will be employed for each Phase.

Describe your team's methodology and experience with Design Phase services on a budget-conscious project of this nature. Identify successful experiences or unique services your team offers in these areas. Describe how your team will manage and communicate ongoing regular costs and budget status to OSU. Describe your processes to develop design and construction cost budgets, and the specific project controls you will employ to control costs during construction.

Describe the impacts to the PacWave Project anticipated during construction. What criteria does the team envision will need to be addressed in particular phases/stages of the work?

5. Schedule

Provide evidence of your firm's experience reaching key milestones on projects with a similar scope under similar conditions and constraints. Describe how the firm addressed any unexpected changes to the critical path during that project, in order to reach key milestones. Proposer shall provide a minimum of one Professional Reference for the project discussed for this criterion 'Schedule.'

Identify the three most significant challenges under the scope of this RFP to reach the key milestones. Describe the approaches your firm will employ to overcome those challenges and ensure key milestones in both the Design Phase and Construction Phase.

Provide a list of any subcontractors your firm intends to use for both Phases of work under this RFP and evidence of any past work with those firms. Please indicate if no past work performed with that subcontractor.

Proposed Schedule of Operations

Provide a proposed schedule of operation to successfully complete both the Design Phase and Construction Phase, during the specified time-period as shown in Section 5.1 'Timeline and Sequencing' and Section 5.5 'Schedule.' Proposer shall provide a schedule of operations to achieve Work based on the following key milestones and schedule constraints:

- Contract Execution – by June 2020.
- Notice to Proceed to Design Phase – by June 2020
- Complete on-Site Construction Work consisting of the complete installation of the casing and conduit at OSU-owned property east of Highway 101 – on or before April 1, 2021.
- Complete all on-site Construction Work under the contract – within 10 Consecutive Months of the later of the Notice to Proceed to Construction Phase or the date of the first day on-site Construction Phase work begins defined as the first day Driftwood closes to public access.
- Construction Phase Notice to Proceed – not before 60% Design completion.

The schedule shall include:

- Any Early Work Amendment items in advance of the NTP for Construction Phase work. See Attachment D 'OSU Sample Contract' for examples of allowable Early Work Amendment activities.
- Equipment and Crew Mobilization to Site
- Site Preparations at Driftwood
- Completion of Shore Landing Construction (including expected duration of each of the five seaward bores)
- Completion of Terrestrial Back Haul Construction
- Completion of Splice Vault Installation
- Site Clean Up
- Equipment and Crew Demobilization

Additionally, Proposer should identify assumptions used to develop the schedule, including, but not limited to:

- Number of drilling per bore
- Number of weather/standby days
- Number of drill rigs
- Number of days on/days off in a typical work week
- Number of hours per day

6. Cost

Cost proposals will be based on the costs as outlined in this section under the scope of this RFP. Cost control governs the success of this Project. OSU relies on its Design-Builder to achieve cost control, upholding the agreed upon budget at design completion, during bidding and at the execution of a Lump Sum price amendment through to the closeout of the Project.

Formula for scoring Cost Points will be scored as follows: Lowest Cost for each overall Design not to exceed cost, and the estimated Construction Phase lump sum cost, will receive full points with higher cost proposals receiving proportionally lower points according to this formula:(Low Cost / Cost) x Points Available.

The maximum points available for Design Phase Cost Proposals is 15 points. The maximum points available for Construction Phase Cost Proposals is 5 points for a total of 20 points.

This Cost Proposal will become the initial contract amount for the awardee with additional services being added via amendment, as applicable.

Design Phase Cost Proposal (15 Points)

The Fee Proposal for all Design Phase Services up through and including Construction Administration Services and Project Closeout (including all Contractor Pre-Construction Services) shall be on a time and materials cost reimbursement basis up to a maximum not-to-exceed amount. This should include a breakdown of the costs by design phase (Programming, Schematic Design, Design Development, Construction Documents and Construction Administration) including a listing of the types of personnel (and their rates) participating in the work and an estimate of the hours and fee by task as listed above.

A Reimbursable Expenses Allowance not to exceed amount shall also be identified in the proposals. Reimbursable expenses are those expenses eligible for reimbursement and the total is in addition to the Fee Proposal amount above.

Reimbursable expenses include, but are not limited to, the following: long-distance communications, reproductions; postage and handling of plans, drawings, specifications and other documents; mileage and travel expenses including airfare and lodging; per diem, as applicable; data processing and photographic production techniques and renderings and models, mock-ups; goods purchases by the Design-Builder and those reimbursable expenses as defined in the Sample Agreement.

Proposer's Overall Design Phase Fee Proposal Not to Exceed Amount: $_____

Construction Phase Cost Proposal (5 Points)

Provide an estimated lump sum cost for the Construction Phase. OSU anticipates the total construction cost of the underground construction between $6 - $10 million dollars. OSU understands that these estimated lump sum price may change, it is anticipated after award and

contract execution, OSU and the Design-Builder will collaborate on a process to achieve a methodology to review changes in the scope and assess reasonable and inclusive ways to address cost increases with additional services being added via amendment if/when applicable.

The estimated lump sum cost is to be based on the information provided in this RFP exclusive of any alternative approaches. Include with the estimated lump sum cost estimate, a list with the breakout of the top five cost categories identified by your firm. Top cost categories are those categories expected to incur the greatest percentage of the overall lump sum cost of this HDD Construction.

Cost control governs the success of this Project. OSU relies on its Design-Builder to achieve cost control, upholding the agreed upon budget at design completion, during bidding and at the execution of a Lump Sum price amendment through to the closeout of the Project.

Proposer's Overall Estimated Construction Phase Lump Sum Price: $_____

*Note: Construction Phase Lump Sum Price is inclusive of costs charged for any Early Work activities.

Proposer's Top Five cost categories:

1. Name of Category: _____
2. Name of Category: _____
3. Name of Category: _____
4. Name of Category: _____
5. Name of Category: _____

7. Safety Record and Safety Plan

Provide the following safety record information. Include a brief summary and amount of each fine. Your corporate safety philosophy and approach including a description of how this philosophy is implemented among trades at work.

- Experience Modification Rate ("EMR") for each of the last five years.
- Lost Time and Recordable Incident Rates for each of the last five years.
- OSHA fines for each of the last five years (including any fines initially)
- Approach to ensuring site safety including safety plans and precautions in connection with the work. Proposer should address measure to ensure public safety in the Driftwood area and the Highway 101 corridor during on-site work. Describe any additional measures for safety protocol and safe access to work areas on-site.

8. Workforce Diversity Plan

Provide a description and identification of Minority Business Enterprise ("MBE"), Women Business Enterprise ("WBE") or Emerging Small Business ("ESB") certifications for your firm and a description of your firm's nondiscrimination practices. Provide any historical information on MBE, WBE or ESB Joint Ventures, subcontracting or mentoring plan, and utilization history for projects completed within the past three years.

Provide a narrative description of your current workforce diversity program or plan, and the plan for obtaining subcontracting and consulting diversity for this project.

The contractor shall perform the work and the contract with respect to diversity according to the means and methods described in its workforce plan described in the response, unless changes are requested and approved in writing in advance by OSU or are required by applicable laws, ordinances, codes, regulations, rules or standards.

QUESTIONS:

Item 8 –

a. **Q: Do all of the cable conduits require the minimum horizontal separation at 20' OC as shown on the contract document sheet DWG-1032-10300. Or, is there an option to bundle the offshore port?**
A: For this proposal, please maintain the five cable conduits with 20-foot minimum horizontal separation as specified in the Request for Proposals.

Other options may be considered during the design phase once a contract has been awarded.

b. **Q: Please provide the following documents: a.) Bathymetry and b.) Permits to Date**

A:

a. Bathymetry

Bathymetric data are available at: https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz

Given the wave and sea conditions in the area, OSU was unable to perform a detailed bathymetric survey over the shore landing HDD route itself. NOTE: the seabed bathymetry at the proposed HDD breakout point, which is being provided is low resolution, and is based on public NOAA data sets.

b. Permits to Date

The Lincoln County Planning Commission approved a *Conditional Use Permit* for OSU to construct at the OSU-owned property on NW Wenger Lane (the UCMF site) on 06/12/2018. (https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz)

The Oregon Parks and Recreation Commission approved a *Conveyance of Easement* to OSU for use of Driftwood Beach State Recreation Site on 01/03/2020. The easement language is under development.

The U.S. Army Corps of Engineers issued a *Nationwide Permit #12* (NWP-2014-367-2) to OSU on 01/08/2020 (https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz).

The Oregon Department of State Lands (DSL) issued a *Removal/Fill Permit* (62236-RF) on 03/02/020. (https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz).

The Oregon Parks & Recreation Department (OPRD) issued an *Ocean Shore Alteration Permit* (2920-20) on 03/02/020. (https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz).

The following permits, licenses and authorizations are in process:

- DSL *Cable Easement* - expected April 2020.
- Bureau of Ocean Energy Management (BOEM) *Lease* - expected May 2020.
- Department of Environmental Quality (DEQ) *401 Water Quality Certification* - expected May 2020.
- DEQ *1200-C Water Quality Permit* - expected May 2020.
- Oregon Department of Transportation (ODOT) *Easement* - expected June 2020.
- Private Property *Easements* - expected June 2020.
- Federal Energy Regulatory Commission (FERC) *License* - expected June 2020.

c. **Q: Is there a standard detail / specification / i.e. Oldcastle Project Number for the required manholes / vault assemblies?**
A: OSU did not specify a vault as selection will require detailed engineering including:

- Roadway and loading requirements
- Cable anchoring loads.
- Casing and conduit anchoring details
- Detailed ground system design

Specifications for the vaults are expected to be developed and produced as part of the project engineering in accordance with Highway loading requirements (outlined in the RFP).

Details of the vault are expected to vary based on final casing choice and construction/installation details. Standard electrical vaults available in the Pacific Northwest may meet the needs for these cable products and installation loading requirements. In particular, standard vaults offered in the area are typically 8'x10'x8'tall vs. the 10'x10'x10' dimensions specified in the RFP. It is probable that 8'x10'x8' vault dimensions will be suitable for the project requirements.

Conceptual drawings of a Driftwood vault are available at:
https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz

The subsea power cable is expected to range up to 4-inch OD. Individual power cores will range up to 1.5-inch OD. Minimum bend diameter of cable cores is 40-inch on axis and will therefore require a 42-inch minimum opening for passage of cable back into the vault after splicing operations are complete.

d. Q: For the (5) offshore assemblies there is currently shown an 8" steel casing with no internal HDPE for cable protection. Is that the intention that a protective secondary HDPE casing be part of the cable installation package?
A: For this proposal, please assume that no internal HDPE is required for cable protection in the steel casings of the offshore assemblies.

Other options may be considered during the design phase once a contract has been awarded.

e. Q: Please confirm what portions of the installation require grouting along the pipeline alignment.
A: Subsea power cables will consist of 50 mm^2 power conductors (3 total), each operating at up to 30 KV and 5 MW maximum power transmission. At maximum design power, each subsea power cable will each generate up to 15 Watts per meter of heat at maximum operating current and power levels.
Shore landing conduits will require grouting from bore entry in the parking lot of Driftwood Beach State Recreation Site to below the water line and below overburden. Based on the results of coring at Driftwood, grouting to a minimum vertical depth of 50 feet shall satisfy both criteria.

A cementitious grout shall be used for this process in order to stabilize the bore hole and provide heat transfer to the surrounding geology. A grout mixture specification has not been developed at this time and OSU expects that such a specification will be developed as part of the detailed bore design process.

Terrestrial power circuits will generate up to 6 Watts per meter of heat per each 3-phase circuit, which is significantly lower than the subsea cable circuits (due to the larger power conductor utilized). Therefore, excessive heating of terrestrial cable circuits is not expected and grouting between conduits and casing for heat transfer will not be required.

Further, the annular volume between the terrestrial casing and bore hole shall be grouted with cementitious grout through areas of overburden and to below the water line to stabilize the casing. This should include the full length above 50 vertical feet below ground level at each end (i.e. both the Driftwood and UCMF properties).

f. Q: Please provide specification for required grouting.
A: See response to Question 'e.'

g. Q: The RFP does not state any construction permit environmental mitigation requirements for the offshore marine aspects associated with the work. These compliance efforts can potentially add considerable cost to the contractor's bid. Would you please specify all offshore marine environmental mitigation requirements that will be placed upon the contractor?
A: Copies of the permits that have been issued (USACOE *Nationwide Permit #12*, DSL *Removal/Fill Permit*, OPRD *Ocean Shore Alteration Permit*) are available at:
https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz

OSU does not expect significant additional environmental mitigation requirements beyond what is included in these permits. If additional mitigation requirements are forthcoming, OSU will assume responsibility for any additional mitigation that may be required, and this can be negotiated with the contractor at a later date, if the need arises.

NOTE: a critical mitigation requirement for this project is the development of an HDD Contingency Plan. Such a plan must be developed and submitted to FERC, DSL, OPRD and ODFW for review and approval prior to the start of HDD operations. This review process could take up to 60 days so development of the HDD Contingency Plan will be a priority once a contract is executed.

h. Q: It is important that the contractor understand the bathymetry at the offshore PacWave South HDD breakout locations. Would you please supply bathometric survey information for the offshore worksite.
A: See response to question b. a. 'Bathymetry.'

i. Q: In regard to As-Built deliverables, is the contractor responsible to supply Differential Global Positioning System (DGPS) coordinates on the exact confirmed locations for each of the offshore HDD breakout locations? We would also suggest that the end of each conduit be marked with a small subsea buoy fastened to the ends of each HDD breakout. This will assist with locating the ends during future efforts. It would also be helpful if the end of each conduit was labeled to assist with future identification.

A: Yes - as-built locations should be provided in sub-meter DGPS coordinates.
Project coordinate systems are as follows:

- From the HDD offshore exit point Inland - EPSG:2992: NAD83 / Oregon Lambert (ft)
- From the HDD offshore exist point Seaward - EPSG:32610: WGS 84 / UTM zone 10N

Yes - the seaward end of each conduit should be permanently labelled and marked with a surface float.

j. Q: Specifications, Section 2 – Scope of Work, Section 6.1.5 – Mechanical Termination of Subsea Cable in the Vaults: Please clarify the contractor's responsibility for this item. Is the contractor responsible for supplying the mechanical design of a mounting fixture and the installation of those fixtures into the vaults? The purpose of the fixture is for an attachment point for cable anchoring devices that will be supplied and installed by others later?
A: Yes - the cable and cable termination details have not been finalized, therefore a specific mechanical termination mounting flange has not been specified. Contractor will be responsible for design of the vault and vault installation to support the design loads specified in section 6.1.5. Contractor will be responsible for specification and/or design of mounting fixtures to support the cable anchoring device.

k. Q: Will PACWAVE supply entry and exit coordinates in NAD 83 for survey? Will PacWave be placing a buoy out at exit in the water?
A: A document and spreadsheet with coordinates for the HDD bores and vaults are available at:
https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz

The contractor will need to provide final, as built coordinates for all underground construction features, including endpoints.

See response to question 'i' regarding buoys.

l. Q: What are the required back fill specifications for the manholes and parking lot at Driftwood Park?
A: In order to simplify lines of responsibility, design of parking lot including finish paving and curbing in accordance with AASHTO and ODOT standards is added to the scope of this RFP. The Driftwood parking lot is listed as a highway rest area for Highway 101. Contractor shall be responsible for design of all underground structures, back fill, compaction, grading, paving, drainage, curb installation and painting. Contractor shall install underground drainage features and perform all back fill and compaction work in accordance with the approved design.

On completion of site work, the parking lot shall be finished temporarily with gravel to allow re-opening of the parking lot to the public. Finish paving and curb installation will be performed by other PacWave contractors at a later date, in accordance with the previous paving design.

m. Q: Can we work 24 hours a day during pipe installation?
A: For this proposal, bidders should assume that all construction activities, including pipe installation, will be limited to between 6:00 AM and 6:00 PM.

Extended operations may be possible with the installation of onsite sound control systems. However, this will not be known until after this contract has been awarded.

n. Q: Can the 25-year useful life of the shore approach drills be reduced to 5 years?
A: OSU requires that steel conduits for cable shore landing remain in near new condition and suitable for cable installation for a minimum of 5 years after installation. Project cables are to remain in service for 25 years after installation. Cable removal and replacement after the 5-year period is not a design requirement, but conduits shall not corrode to the point of damaging the project cables over the project life.

o. Q: Do the 6" HDPE pipes need to have spacers installed for grouting?
A: Spacers were specified in the original RFP documents under the assumption that spacers would be required to allow for pull in of internal conduits. If internal HDPE conduits can be installed without spacers, then spacers will not be required. The primary concern with twisting of conduits is that excessive twisting would significantly increase cable friction during pull in. Twisting of conduits should therefore be minimized during installation.

p. Q: Is there a specification for thermal grout to be used on this project?
A: See response to Question 'e.'

q. Q: Will instrumentation and monitoring (for settlement) be required for the Terrestrial bore? If so, will that be provided by the Contractor or OSU?
A: See response to Question 'e.'

r. Q: What are the permit requirements to which the contractor will be held?
A: See responses to Questions 'b.' and 'g.'

s. Q: Is thermal grouting required for the terrestrial bore?
A: See response to Question 'e.'

t. Q: Is the base mapping completed for the project and will that be provided to the teams to begin engineering drawings? Will it be available in AutoCad?

A: CAD files created during the survey of Driftwood and project GIS shapefiles are available at: https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz

u. Q: In the pre-proposal meeting, there was a comment made that FERC would be reviewing the contingency plans for inadvertent returns. How much time does FERC require for their review? Is the FERC review required for both the terrestrial bores and the shore approaches?
A: FERC review will cover both the terrestrial bores and the shore approaches. Due to the sensitive wetlands located to the south of the Driftwood parking lot, OSU expects the greatest focus to be on the terrestrial alignment.

The HDD Contingency Plan is a critical mitigation requirement for this project and must be developed and submitted to FERC, DSL, OPRD and ODFW for review and approval prior to the start of HDD operations. This review process could take up to 60 days, so development of the HDD Contingency Plan will be a priority once a contract is executed.

v. Q: Will stringing and staging of pipe be allowed in the wetland adjacent to the UCMF property staging area?
A: Impact to the wetlands must be minimized but suspending the pipe over the wetlands to the east of the future UCMF compound would be acceptable.

w. Q: Will monitoring and guidance equipment be allowed to be installed in wetlands? Will foot access be allowed in wetlands regularly?
A: Impact to the wetlands must be minimized but foot access and installation of portable monitoring and guidance will be allowable. Details and specifics will need to be reviewed by OPRD once a contractor has been selected.

x. Q: Will OSU be assisting with the procurement of the ODOT Permit to cross Hwy 101? Will OSU be the owner of the permit?
A: OSU is currently working with ODOT to secure a permit for the Highway 101 crossing. The permit will be in OSU's name but assistance from the contractor during the permitting process may be required. NOTE: It is likely that this will be a priority once a contract has been executed.

y. Q: What is the engineering schedule? Will there be reviews at different design levels (e.g. 60% Design Review, 90% Design Review)?
A: Contractor should develop and suggest an engineering schedule as part of their proposal. Specifics of such a proposal will be finalized during future discussions with OSU.

z. Q: Does the design require review and approval from any permitting agency?
A: OPRD and ODOT will likely need to review and approve the engineering designs for Driftwood and for the HDD bore and conduit under Highway 101.

Designs will also be reviewed as part of the FERC, DSL, and ODFW review of the HDD Contingency Plan (see responses #7 and 21). However, these agencies will be approving the Contingency Plan itself, not the engineering designs.

aa. Q: Once a design submittal is made to OSU, how long will OSU take to review the submittal and return comments back to the Engineer?
A: OSU and its consultants will expedite the review of submittals and the return of comments back to the engineer. A timeline for such a review will be developed during contracting and refined as necessary.

bb. Q: Will spacers be required on the terrestrial bore, and if so, what is the minimum spacing between the conduits?

A: See response to Question 'o.'

cc. Q: Will cathodic protection be required for the offshore casing?
A: A cathodic protection system may be needed to ensure conduit life. However, the preferred method for protecting the conduits has not been determined and will be developed collaboratively with the contractor during the design phase. Therefore, for this proposal, bidders should assume that no cathodic protection or preservation fluid will be required for this project. For now, the cost for protecting the conduits will be OSU's responsibility.

dd. Q: Will preservation fluid be required within the completed offshore casings, and if so, what type of liquid?
A: In response to Question 'n,' OSU requires that steel conduits for cable shore landing remain in near new condition and suitable for cable installation for a minimum of 5 years after installation. Project cables are to remain in service for 25 years after installation. However, the preferred method for achieving this has not been determined and will be developed collaboratively with the contractor during the design phase. Therefore, for this proposal, bidders should assume that no preservation fluid or cathodic protection will be required for this project. For now, the cost for protecting the conduits will be OSU's responsibility.

ee. Q: What are the permit requirements for the project?
A: See responses to Questions 'b.' and 'g.'

ff. Q: How is the contractor to be paid for unforeseen requirements of permits yet to be procured?
A: See response to Question 'g.'

gg. Q: Will the scope be further clarified or broken down?
A: Clarification has been provided in this Addendum.

hh. Q: Will de-beading be required on conduits and casings?
A: De-beading of terrestrial casing is at the discretion of the design and installation contractor. Contractor is responsible for successful installation of internal conduit system. Selection of final casing size and wall thickness is subject to detailed bore design. If contractor can install internal conduits without de-beading of the HDPE casing, then this is not a requirement.

De-beading of internal conduits is at the discretion of the installation contractor. On completion of installation, 6-inch HDPE conduits (7x total) shall have a minimum clear ID of 4.5-inches. Minimum clear ID shall be proven via pig runs prior to acceptance.

Further note that one conduit is to be filled with 7x total, 1-inch HDPE conduits. If these conduits can be installed without de-beading of the 6-inch conduit, then de-beading is not a requirement. The 1-inch HDPE conduits are expected to be installed as continuous lengths from reels without a requirement for fusion welding. Therefore, internal weld beads are not expected to be a concern.

ii. Q: Based on the volume of questions, is it worthwhile to have design build teams put forth effort for a June 2020 start date proposal? We feel that it would be best for the project to focus on the more realistic project start date.
A: OSU agrees. This has been addressed in the RFP update released in conjunction with this addendum and focuses on more realistic design and construction start dates.

jj. Q: When will the draft contract be provided to the proposers? Will the question period be extended until after draft contract is provided to the proposers to accommodate any resulting questions?
A: The draft contract will be provided prior to the Questions Deadline.

kk. Q: Attachment A, Scope of Work, section 4, page 16 of 34 states: *"The annular space around the 30-inch casing and annular space internal to the casing (between the casing ID and OD of the 6-inch HDPE conduits) will be grout filled to stabilize the bore."* Please clarify the requirements for, and what specifications (prescriptive or performance specifications) apply to this grout?
A: See response to Question 'e.'

ll. Is there a vault specification required (i.e. number, ...) as part of the splice vault system?
A: See response to Question 'c.'

mm. Q: Could a Contractor use a portion of the beach to lay down casing or conduits?
A: No equipment is allowed on the beach unless it is being used to respond to an emergency.
The project team has previously investigated locations for shore landing casing layout. The closest point where shore landing casings can be manufactured to full length (i.e. 5,000 feet) for tow out to the site is at the Port Astoria on the Columbia River to the north of the project site.

nn. Q: Will the project require a State lease agreement for the offshore alignment?
A: See response to Question 'b.'

oo. Q: Will OSU require the Contractor to provide a legal description for the as-constructed alignments?
A: Yes - the D-B Contractor will need to provide a *legal description* of the alignments. The contractor will also be expected to provide a Route Position List (RPL) for the "as- built" alignments and coordinates for other project components. As-built locations should be provided in sub-meter DGPS coordinates.
Project coordinate systems are as follows:

- From the HDD offshore exit point Inland - EPSG:2992: NAD83 / Oregon Lambert (ft)
- From the HDD offshore exist point Seaward - EPSG:32610: WGS 84 / UTM zone 10N

pp. Q: What coordinate system should the conduit termination points be presented in?
A: See response to Question 'i.'

qq. Q: Does OSU anticipate having the Contractor assist acquiring the ODOT utility access permit?
A: See response to Question 'x.'

rr. Q: Has ODOT indicated special requirements for the HDD under highway 101?
A: At this time, ODOT has not indicated any special requirements for the HDD under Highway 101. However, proposers should assume that they will require a minimum of 40-foot of cover under the highway and that a subsidence monitoring and management plan will need to be developed and implemented.

ss. Q: You require a 25-year life on the conduit, how will you evaluate the Contractor's approach?
A: In response to Question 'n,' OSU requires that steel conduits for cable shore landing remain in near new condition and suitable for cable installation for a minimum of 5 years after installation. Project cables are to remain in service for 25 years after installation. However, the preferred method for achieving this has not been determined and will be developed collaboratively with the D-B Contractor during the design phase. Therefore, for this proposal, bidders should assume that no preservation fluid or cathodic protection will be required for this project. For now, the cost for protecting the conduits will be OSU's responsibility.

tt. Q: When does OSU expect to have the USACOE permit for the HDD conduit?
A: USACOE issued a *Nationwide Permit No. 12* (NWP-2014-367-2) on 01/08/2020 authorizing the PacWave South Project, including the HDD conduit components. The NWP is currently contingent on OSU obtaining a *401 Water Quality Certification* (WQC) decision from the Oregon Department of Environmental Quality (DEQ) and a *Coastal Zone Management Act (CZMA) concurrence* from the Oregon Department of Land Conservation and Development (DLCD). Both the WQC and the CZMA Federal Consistency review are

currently underway.

A copy of NWP-2014-367-2 is available at:
https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz

uu. Q: Can the proposers review the ACOE permit conditions?
A: See response to Question 'tt.'

vv. Q: Is there a fill removal permit for the wetland along the terrestrial alignment?
A: The Oregon Department of State Lands (DSL) issued a *Removal/Fill Permit* (62236-RF) on 03/02/020. (https://oregonstate.box.com/s/mafxxhsj9o5x283v0as6654o6tsolasz). This is for the whole PacWave South Project but covers the terrestrial alignment under the wetlands.

ww. Q: Does OSU have a Bathymetric survey for the conduit termination area?
A: See response to Question 'b.'

xx. Q: Can OSU provide a final outside diameter for the conductors?
A: Subsea power cables will be installed in the shore landing steel conduits. The subsea power cables will be 4-inch OD or less. Cable mass is expected to range between 12 to 14 kg per meter. Submerged cable weight is very dependent on final construction with a potential range of 5 to 10 kg per meter.
As shown on drawing DWG-1050-10300, terrestrial power circuits will utilize larger conductors versus the subsea cables. Terrestrial circuits will utilize twisted bundles of 4/0 EPR insulated power cables. Each power conductor will be approximately 1.5-inch OD. Three of these conductors, plus an insulated 2 AWG ground conductor, will be bundled and twisted together for pull in installation.

yy. Q: What heat generation should be anticipated for the conductors?
A: Each of four (4) power circuits operate at up to 30 KV and 5 MW maximum power transmission. However, note that these are maximum values versus average. Wave energy converters produce variable power subject to wave action. Average power will be significantly less. A fifth circuit will operate at much lower voltage (4,160 V) and current (17 amps) such that heat output is negligible versus the power circuits. Subsea power cables will feature 50 mm^2 power conductors (3 total). At maximum design power, each subsea power cable will each generate up to 15 Watts per meter of heat at maximum operating power. Terrestrial power circuits will generate up to 6 Watts per meter of heat per each 3-phase circuit (4 total), which is significantly lower than the subsea cable circuits due to use of larger power conductors.

zz. Q: Could OSU grant a 2-week extension on the proposal due date?
A: See Addendum #8 dated 02/20/2020: https://bid.oregonstate.edu/opportunity/viewFile/46484/2020-002182%20Addendum%208.pdf?1582244054

aaa. Q: Will the special status species identified in the Park require mitigation measures or Owner monitoring?
A: The extremely rare *Seaside Hoary Elfin* butterfly is found at Driftwood and is closely associated with the kinnikinnick plant, also known as bearberry. Contractor shall avoid disturbing kinnikinnick within Driftwood and all construction activity must occur within the parking lot.

If kinnikinnick located within the construction footprint at the UCMF must be disturbed, species-specific surveys may be necessary to determine the extent of occupied habitat and associated mitigation. Any such monitoring or additional mitigation will be OSU's responsibility.

bbb. Q: Has the owner (PacWave) identified an internal expert to provide guidance for technical evaluation of the HDD proposal? Knowing the owner's evaluation team will help to balance the cost vs. risk, resulting in a more competitive and realistic bids.
A: At this time, OSU is not releasing the names of evaluation committee members. The makeup of the

evaluation committee consists of members with expertise and qualifications suited to the evaluation of proposals received in response to work outlined in the scope of this solicitation.

ccc. Q: Is there a possibility of breaking the proposal process into 2 sections as follows:
Stage 1 – Prequalify 3-5 "teams" based on qualifications and preliminary project approach. Limit responses to 20-30 pages of core information. Consider selection criteria such as construction experience, engineering, core team, proposed solution, diversity planning, etc. Do not include pricing at this stage. Award $30k-$50k per team for Stage 2 preparation. Will cover costs of engagement which will reduce final cost proposals and increase level of effort for plan development.
Stage 2 – Add price and specific plan to next stage for evaluation and interview selection.

A: OSU considered a range of procurement methodologies and determined the Request for Proposals two-step process most advantageous to meet OSU and the PacWave Project's needs. At this time, alternative methods of procurement are no longer under consideration. OSU will proceed as described in this RFP.

END OF ADDENDUM NO. 9