PM PROJECT MANAGEMENT AND QUALITY CONTROL

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PM B Subconsultant Coordination
PM C Develop and Update the Schedule (Preliminary Engineering and Procurement)
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  J.2 Design-Builder Design and Quality Management Plan Costs
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PROC PROJECT PROCUREMENT
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PROC A Request for Qualifications
PROC B Request for Proposals - Instructions to Proposers
PROC C Request for Proposals - CHAPTER 1 General Provisions
PROC D Request for Proposals - Appendices
PROC E Request for Proposals - Forms

2 PRELIMINARY ENGINEERING & PROJECT PROCUREMENT
(Request for Proposals - CH 2)

2.1 General Information
  2.1.A NA
  2.1.B RFP - Technical Requirements
2.2 Mandatory Standards
  2.2.A NA
  2.2.B RFP - Technical Requirements
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* A portion of this SOW will be performed by WSDOT
**Project Description**

The SR432 / Longview Grade Crossing Project, also known as the Industrial Way/Oregon Way Intersection Project, (hereinafter referred to as the Project) is a Connecting Washington project funded by the Washington State Legislature. The purpose of the project is to develop an affordable long-term roadway solution to improve travel reliability for all vehicles, accommodate current and future freight truck and passenger vehicle movement, and maintain or improve emergency response at this critical intersection.

Located in the Longview Industrial Area, the Industrial Way/Oregon Way intersection is a critical connection of State Route (SR) 432 and SR 433, two Highways of Statewide Significance and part of the National Highway System, that support significant passenger and freight truck movement.

The intersection generally accommodates the existing number of vehicles using the roadway; however, the intersection experiences heavy congestion during the PM peak hours with backups that are longer than the available storage distance for most turn movements. Traffic volumes are expected to increase 40-50 percent by 2040. Traffic demand at all left turn and some right turn movements is expected to exceed the capacity of these lanes (LOS F), causing long backups that exceed their available storage distance, which in turn impacts through traffic movement. The overall intersection congestion will result in failing conditions (LOS F) where drivers experience significant backups, waiting two or more signal cycles to pass through the intersection, and an intersection that is unable to accommodate the number of vehicles traveling to and from the Lewis and Clark Bridge.

The Washington State Department of Transportation (WSDOT) has a project that will grade separate the major movements of the Industrial Way/Oregon Way intersection. The Project will be delivered using the Design-Build method.

A preferred alternative to improve the existing intersection is being evaluated. This alternative will be the basis of the Conceptual Plan that will be forwarded through the Preliminary Engineering and Procurement Phases:

- **Partial Grade Separated option** – this option would be constructed with some movements elevated and other movements retained on the surface. The new elevated intersection would accommodate all northbound and southbound turning and through movements, as well as all eastbound and westbound turning movements. All eastbound and westbound through movements on SR 432 would occur at the new surface intersection that would be constructed where the existing intersection is located. Under this option, the Reynold’s Lead will not be realigned.

Although there is a preferred alternative to improve the existing intersection that will be used as the basis for the Conceptual Plan, the Technical Requirements shall be developed to allow the Proposers the flexibility to be creative and innovative in their approach to improve the intersection.
WSDOT is seeking a CONSULTANT to perform Preliminary Engineering (up to 30% design) in order to prepare the Basic Configuration, Conceptual Plan, design documentation, estimate and schedule in support of WSDOT Design-Build procurement documents for the Project.

The CONSULTANT Scope of Work shall also include the development of the Design-Build procurement documents (the Request for Qualifications (RFQ) and the Request for Proposals (RFP) including the Instructions to Proposers (ITP), Chapter 1 - General Provisions, Chapter 2 – Technical Requirements, and the Appendices) for the Project.

RFP documents are to be completed to meet an “Issue RFP” date no later than March 31, 2020 for an anticipated Notice to Proceed to the Design-Builder to start design in July 2020.

Except as noted below, the CONSULTANT shall be responsible for all aspects of Preliminary Engineering and Procurement Document Development, which include, but are not limited to:

- Project Management and Quality Control
- Public Involvement Support
- Project Schedule (Preliminary Engineering, Procurement, & Design-Build Phases)
- Construction Staging and Constructability Reviews
- Construction Estimate
- Request for Qualifications
- Request for Proposals – Instructions to Proposers, General Provisions, Forms
- Request for Proposals – Preliminary Engineering (up to 30% Design and Conceptual Plans), Technical Requirements & Appendices
  - Survey*
  - Geotechnical *
  - Pavement *
  - Environmental *
  - Communications
  - Utility Conflicts
  - Roadway
  - Project Documentation
  - Bridge and Structures *
  - Hydraulics and Drainage
  - Roadside Restoration *
  - Illumination
  - Intelligent Transportation Systems (ITS)
  - Sign
  - Pavement Marking
  - Traffic Operations
  - Maintenance of Traffic
  - Right-of-Way *
  - Control of Materials
  - Quality Management Plan
  - Maintenance During Construction

and all other analyses and/or design activities necessary to complete the contract documents.

* a portion of this work will be performed by WSDOT staff. See appropriate chapter in Section
Assumptions

- The Project will be delivered with the Design-Build method.
- The Project will employ a Practical Design approach, as outlined in the WSDOT Design Manual, for this Project.
- WSDOT will perform a portion or all of the following services (See appropriate chapter in Section 2 of this Scope of Work for details):
  - Survey
  - Geotechnical Design
  - Pavement Design
  - Environmental Permitting
  - Bridge Design
  - Right-of-Way Plans

The WSDOT Kelso Area Engineering Office will be active members of the Project team assisting with Project decisions and direction, providing reviews, attending meetings, and acting as the conduit between the Project team and WSDOT support groups.

The WSDOT Design-Build Office will perform Procurement activities (such as SOQ and RFP evaluations and shortlisting/selection of Best Value Proposer, preparing for construction administration, etc.)

- Complete design to a level (up to 30%) and on a schedule that will allow environmental documents and permits to be complete, and right-of-way impacts and property acquisitions to be determined prior to issuing the RFP.
- For all deliverables associated with design reports, analysis, or documentation, the CONSULTANT shall provide draft deliverables (60% and 90%), respond to a single consolidated set of comments from WSDOT, and finalize the deliverable.
- WSDOT anticipates that the Project can be constructed entirely within right of way that WSDOT will acquire along SR 432, SR 433, East Port Way, West Port Way and Oregon Way.
- Access to the businesses along SR 432, SR 433, East Port Way, West Port way and Oregon Way shall be maintained, and railroad traffic will not be impeded during construction.
- The CONSULTANT will facilitate the Cost-Risk Assessment.
- The CONSULTANT will facilitate the access hearing.
- WSDOT will provide the CONSULTANT with the Environmental Impact Statement for this project.

Design Standards and References

The design shall be prepared in accordance with the standard practices of WSDOT. The design documentation, reports, and design file items shall be prepared in accordance with WSDOT standards and practices, which includes, but may not limited to, the following reference material for the Project:

- WSDOT Design Manual M22-01
- WSDOT Highway Surveying Manual M22-97
- WSDOT Bridge Design Manual LRFD M23-50
• WSDOT *Highway Runoff Manual M31-16*
• WSDOT *Hydraulics Manual M23-03*
• WSDOT *Plans Preparation Manual M22-31*
• WSDOT *Right of Way Manual M26-01*
• WSDOT *Utilities Manual M22-87*
• WSDOT *Roadside Manual M25-30*
• WSDOT *Traffic Manual M51-05*
• WSDOT *Standard Plans M21-01*
• WSDOT *Standard Specifications M41-10*
• WSDOT *Electronic Engineering Data Standards M3028*
• WSDOT *Environmental Manual M31-11*
• WSDOT DRAFT *Design-Build Manual*

These manuals are a baseline for estimating work efforts. If future revisions to these manuals necessitate changes to work already completed, WSDOT and the CONSULTANT shall evaluate changes in scope, and shall initiate a scope change, if appropriate.

**Work Elements**

**PM - PROJECT MANAGEMENT AND QUALITY CONTROL**

**PM A - Project Management**

The CONSULTANT Project Manager shall be responsible for internal project management and communications with WSDOT. The WSDOT Project Engineer will act as the WSDOT Project Manager for this Project.

The CONSULTANT project manager shall be co-located in the WSDOT Kelso Area Engineering Office (located at 2400 Talley Way, Kelso, WA) with the Project team one (1) day a week, at a minimum. Co-location frequency can be subject to revision with the concurrence of the WSDOT Project Manager depending on Project schedule.

After Notice to Proceed is given, the CONSULTANT shall prepare a Project Management Plan (PMP) for endorsement by WSDOT.

This Scope of Work describes coordination efforts required between WSDOT, the CONSULTANT, and the Subconsultants. The WSDOT Kelso Area Engineering Office will be the point of contact between the CONSULTANT and WSDOT support groups and be involved in all aspects of the Project. The CONSULTANT shall coordinate with personnel from various WSDOT offices, including Survey, Geotechnical Division, Materials, Environmental, Communications, Utilities, Engineering Services, Bridge and Structures Office, Hydraulics, Traffic, Maintenance, Headquarters Construction Office and Headquarters Design Office over the course of the Project. The CONSULTANT shall ensure that all WSDOT input and comments are addressed and incorporated into the deliverables.

WSDOT will provide a draft version of the Risk Matrix to the CONSULTANT as an optional starting point to develop the Risk Matrix for the Preliminary Engineering and Procurement Phases of the Project. Reporting of emergent issues, and if necessary, potential changes or revisions to the Project schedule or cost estimate shall be provided on a regular basis.
Deliverable(s):
- Project Management Plan.
- Risk Matrix for Preliminary Engineering and Procurement Phases.

PM B - Subconsultant Coordination
The CONSULTANT shall manage their Subconsultants to ensure adherence to the Project scope, schedule, and budget.

Scope: The CONSULTANT shall provide direction to their Subconsultants and review their work over the course of the Project. This work element includes attending meetings, communicating current Project developments, planning work items with the Subconsultants, and performing Quality Assurance reviews of their work.

Prior to the start of any work, the CONSULTANTS shall confer with their Subconsultants and the WSDOT Kelso Area Engineering office and support groups. At this time, these groups shall discuss and agree on expectations, the Subconsultants’ work plan, deliverables, and the QA/QC review process.

Schedule: The CONSULTANT shall monitor the status of individual work elements and review monthly Subconsultant progress reports.

Budget: The CONSULTANT shall monitor the Subconsultant’s budgets and costs/invoices on a monthly basis over the course of the Project.

Subconsultants shall submit changes in overhead schedules and rate tables on an annual basis through the CONSULTANT to WSDOT for approval.

Deliverable(s):
- Subconsultant monthly invoice and progress report.
- Annual changes to Subconsultant overhead schedules and rate tables.

PM C – Develop and Update the Schedule (Preliminary Engineering and Procurement Phases)
Within ten (10) working days after task order execution, the CONSULTANT shall prepare and submit to WSDOT a draft critical path method Project schedule (for the Preliminary Engineering and Procurement Phases) utilizing Primavera P6 with the following information:
1. All activities necessary to complete the Project.
2. Planned order of work activities in a logical sequence.
3. Durations of work activities in working days.
4. Activity durations that are reasonable for the intended work.
5. Sufficient detail to evaluate the progress of individual activities on a daily basis.
6. Physical completion of all work within the authorized task order timeframe.

Restraints may be utilized but may not serve to change the logic of the network or the critical path. The schedule shall display, at a minimum, the following information:
1. Contract and Agreement Number and Title.
2. Critical Path.
3. Activity Description.
4. Milestone Description.
5. Activity Duration.
6. Predecessor Activities.
7. Successor Activities.
8. Early Start and Early Finish for each activity.
9. Total Float and Free Float for each activity.
10. Start and Completion Dates for Preliminary Engineering and for Procurement
11. Procurement Milestones – RFQ Issue Date, SOQ Due Date, Notification of Short-listed Submitters, RFP Issue Date, ATC Submittal Deadline, Proposal Due Date, Announce Best Value Proposer, and Notice to Proceed
12. Data Date.

A rough preliminary design schedule has been developed by WSDOT and will be provided to the CONSULTANT to use as an optional starting point for the draft schedule. The CONSULTANT can choose to make modifications to the WSDOT-provided schedule or develop an independent schedule. WSDOT will review the CONSULTANT’s draft schedule and return comments within fifteen (15) working days after receipt. The CONSULTANT shall respond to WSDOT comments and finalize the schedule within ten (10) working days for endorsement by the WSDOT Project Manager. The endorsed schedule shall be made the baseline and be included in the PMP.

Typical procurement milestone timeline requirements are outlined in the Design-Build RFP and ITP template documents. A procurement schedule template (in Excel) is available on the WSDOT Design-Build Sharepoint site and can also be utilized to provide a quick outline of the procurement schedule.

The CONSULTANT shall submit an updated Project schedule on a monthly basis.

The CONSULTANT shall report on the status of the schedule, including items completed and items remaining, within the monthly progress reports.

Deliverable(s):
- Draft and Final Project Schedule in electronic PDF format.
- Updated Project Schedule on a monthly basis in electronic PDF format.

**PM D - Monthly Progress Reports and Invoices**
The CONSULTANT shall submit monthly invoicing and progress report for work performed that period.

The CONSULTANT shall develop cost projections on a bi-monthly timeframe and propose corrective actions as needed. Corrective actions could include formal requests for scope of work and/or budget modifications.

The CONSULTANT shall submit changes in overhead schedules and rate tables on an annual basis to WSDOT for approval.
Deliverable(s):
- Monthly invoice and progress report.
- Cost projections that include both CONSULTANT and Subconsultant costs by month for the Project duration shall be delivered every two months to coincide with WSDOT’s aging reporting cycle.
- Annual changes to overhead schedules and rate tables.

PM E - Coordination Meetings
E.1 Project Kick-off Meeting
Prior to beginning work, the CONSULTANT shall coordinate with the Project Office to set up a Project Kick-off Meeting which shall include the CONSULTANT, Subconsultants, and Project Office and WSDOT support groups. This meeting is an opportunity to discuss and confirm the Project requirements, scope, timelines, and issues. This meeting will be used to obtain team endorsement of the PMP and schedule.

Deliverable(s):
- Kick-off meeting agenda, invitee list, and meeting materials.
- Draft and Final Meeting Minutes.

E.2 Project Management Meetings
The CONSULTANT shall meet monthly with the WSDOT to ensure timely progress of the work. Subconsultants and WSDOT support groups shall be attendees as needed. Meetings will occur monthly and will be in person, or coordinated via conference call and Skype for Business or similar technology, as mutually agreed.

The CONSULTANT shall schedule, prepare the meeting agenda, facilitate the meeting, and maintain records for the meeting:
- The meeting agenda shall include the Project status regarding scope, schedule, and budget. Agenda items shall report on the status of current and upcoming (within the next three (3) to six (6) months) critical path activities and upcoming milestone deliverables.
- Meeting notes shall include action items with assignments and deadlines. The following meeting shall follow up on outstanding action items.
- This meeting will provide an opportunity for WSDOT and the CONSULTANT to identify and discuss any new issues and to manage risk. Issue logs and risk matrices shall be updated accordingly.

Deliverable(s):
- Monthly Project Management meetings.
- Meeting agendas, draft and final meeting minutes, issues log, updated Risk Matrix.

E.3 Cost Risk Assessment (CRA)
The objective of the CRA is to reduce risk and to verify or improve upon the conceptual design and subsequent construction scenarios by reviewing the Conceptual Plan and procurement documents. Additional elements of focus will be determined during the Prep-Meeting.
The CRA shall be included as an activity on the Schedule.

The CONSULTANT shall provide a CRA Risk Leader and a Cost Leader who are independent from the Project Consultant and WSDOT team. The Leaders shall communicate scope and schedule with the team members, prepare study materials for the CRA team, review project data prior to the study, lead/facilitate the CRA team in the Risk and Cost Analysis process (Job Plan). The analysis will consist of a computational Monte-Carlo algorithm, or comparable, with repeated random sampling of at least 5,000 realizations to produce a probability distribution.

The CONSULTANT shall organize and participate in a Prep-Meeting between WSDOT and the CONSULTANT. The purpose of the meeting is to establish the goals and objectives of the CRA Workshop, determine what information is available for the CRA team, and confirm technical experts required for the Workshop. Meeting will be in person, or coordinated via conference call and Skype for Business or similar technology, as mutually agreed.

The CONSULTANT shall organize, participate in and facilitate up to a 3-day CRA Workshop for the Project. On the last day of the workshop, the CONSULTANT shall conduct a CRA report-out presentation. WSDOT will identify and invite audience participants for the CRA report-out presentation.

The CONSULTANT shall write the Draft and Final CRA reports. These reports will be provided to WSDOT for review and comments.

Assumption(s):
• The CONSULTANT will arrange for and supply all CRA team members.

Deliverable(s):
• Schedule for CRA Workshop.
• Agenda and notes for CRA Prep-Meeting.
• Cost model, graphics, estimates, schedules, and other project data, including project constraints, for use during the workshop.
• Agenda and invitee list for CRA Study.
• Up to three (3) day CRA Workshop.
• Presentation of Study findings (PowerPoint).
• Draft and Final CRA Report

E.4 RFQ – Page Turns
The CONSULTANT shall coordinate with WSDOT to schedule “page-turn” meetings for technical reviews of the RFQ fifteen (15) working days after 60% and 90% turn-in. Meetings will be in person, or coordinated via conference call and Skype for Business or similar technology, as mutually agreed.
During the page-turn meeting, the CONSULTANT shall “track-changes” to incorporate revisions to the text that can be made quickly during the meeting. Otherwise, the CONSULTANT shall add comments into the document with a short description of the input/feedback and initials of the person who will follow up to address the input/feedback.

The CONSULTANT shall incorporate and follow up on all page-turn meeting feedback within two (2) weeks of the page-turn meeting.

**Deliverable(s):**
- 60% and 90% RFQ Page-Turn Meetings w/ modified document.
- Revisions in response to WSDOT review comments at 60% and 90% reviews.

**E.5  RFP – Page Turns**
The CONSULTANT shall coordinate with WSDOT to schedule “page-turn” meetings with Subconsultants and WSDOT support groups for technical reviews of the RFP three (3) weeks after 60% and 90% turn-in. Meetings will be in person, or coordinated via conference call and Skype for Business or similar technology, as mutually agreed. Different time slots shall be scheduled for page-turn meetings to review different sections of the RFP according to discipline.

The CONSULTANT shall incorporate and follow up on all page-turn meeting feedback within two (2) weeks of the page-turn meeting.

**Deliverable(s):**
- 60% and 90% RFP Page-Turn Meetings w/ modified document.
- Revisions in response to WSDOT review comments at 60% and 90% reviews.

**E.6 Constructability Reviews**
The CONSULTANT shall conduct two (2) meetings with WSDOT for constructability reviews. The constructability review meetings shall occur within six (6) weeks after the Project Kick-off Meeting and two (2) weeks after the 60% RFP-completion milestones to ensure that the Project Concept Plan and Basic Configuration are constructible and maintainable. Meetings will be in person, or coordinated via conference call and Skype for Business or similar technology, as mutually agreed.

The CONSULTANT shall facilitate the meeting and lead the discussion of complex constructability issues including, but not limited to, construction duration, construction staging strategies, worker and public safety including traffic control and access to the Highlands Neighborhood and adjacent businesses, maintenance of Project infrastructure, and potential construction cost-saving measures.

The CONSULTANT shall coordinate the scheduling of this meeting with WSDOT. WSDOT will identify the WSDOT attendees.

The CONSULTANT shall develop construction staging approach, concepts, and plans, as
necessary to aid in the discussion, and shall distribute materials at least one (1) week prior to the meetings to allow time for participants to prepare and review. The CONSULTANT shall document the meetings and review, resolve, and provide responses to the WSDOT’s review comments.

*Deliverable(s):*
- CONSULTANT shall develop Conceptual construction staging approach, concepts and plans, as necessary, for the Project.
- Technical information, graphics and plans for the constructability review, meeting notes, recommendations, and commitments.
- CONSULTANT shall facilitate Constructability reviews with WSDOT.
- Responses to the 60% and 90% RFP-completion review comments and meeting minutes for the 60% and 90% RFP-completion constructability review meetings.

**PM F – Project Setup**

**F.1 Basemap and InRoad files**

WSDOT will provide the CONSULTANT a basemap and InRoads files (Digital Terrain Model [DTM] and ALG files) that document existing conditions in the field for preliminary engineering.

WSDOT will provide Records of Survey in the area and existing centerlines of SR 432, SR433, Oregon Way, East Port Way and West Port Way. WSDOT will also provide the proposed right-of-way centerline in an InRoads ALG file. The CONSULTANT will provide the proposed roadway centerlines of SR 432, SR433, Oregon Way, East Port Way and West Port Way along with the right-of-way footprint.

The CONSULTANT shall utilize Bentley MicroStation Version 8i, Power InRoads Version 8i and the WSDOT InRoads Feature Code List (Updated 3/21/17). Deliverables shall be compatible with the WSDOT Plans Preparation Manual and the WSDOT Electronic Engineering Data Standards Manual. Underlying WSDOT CAE resource files can be found on the internet WSDOT CAE Support website.

See also Section 2.5 Survey in this Scope of Work.

*Deliverable(s):*
- Proposed roadway centerlines of SR 432, SR 433, Oregon Way, East Port Way and West Port Way along with the right-of-way footprint.

**F.2 Document Control and Management**

Throughout the life of the Project, ProjectWise will be utilized to allow WSDOT, the CONSULTANT and the SUBCONSULTANTS to manage, share, distribute, and review documents. The CONSULTANT shall set up the contract file structure for document control and manage the Project documents in ProjectWise. See also Section PROC of this Project Scope of Work.

*Deliverable(s):*
- Contract file structure in ProjectWise.
PM G - Quality Assurance / Quality Control (QA/QC) Reviews
The CONSULTANT shall provide QA/QC reviews for services performed under this Scope of Work in accordance with an approved CONSULTANT QA/QC plan.

The CONSULTANT shall designate (a) qualified staff member(s) to perform QA/QC reviews on all deliverables. The reviews shall cover documents, reports, plans, and pertinent information on an ongoing basis.

The CONSULTANT shall submit a CONSULTANT QA/QC plan for approval by WSDOT that outlines a review of the assumptions, concepts, production, and presentation of product format that assures the overall Project objectives are being fulfilled. The Quality Control process shall address how changes in Project scope, schedule, and budget will be addressed when they are identified.

WSDOT will provide additional reviews. The CONSULTANT Project Manager shall work with the WSDOT to coordinate these reviews with the appropriate WSDOT staff members. WSDOT support groups will be utilized to review and provide direction of pertinent work items, and will coordinate with the CONSULTANT’s Project Manager and pertinent staff members.

QA/QC reviews of specific work elements are included in respective sections of this Scope of Work.

Deliverable(s):
- CONSULTANT QA/QC Plan.

PM H – Public Involvement
The CONSULTANT shall prepare a Public Involvement Plan in coordination with the WSDOT that outlines a process for providing information to and obtaining input from the public about the Project. The plan will serve as a roadmap during the Preliminary Engineering and Procurement Phases of the Project for carrying out public involvement with a target audience consisting of business owners in the Project Area, residents of the Highlands Neighborhood, School District, and emergency services.

Access to the businesses and local neighborhood streets during construction will be a discussion item.

WSDOT will develop and update a Project website throughout the Project. The CONSULTANT shall provide necessary project information to WSDOT that could include, but is not limited to, displays or folio graphics so they can implement the plan.

The CONSULTANT shall consider public input and feedback received and, with WSDOT concurrence, incorporate it into the Preliminary Engineering and Procurement documents.

Deliverable(s):
- The Public Involvement Plan shall be no more than five pages.
- Project information in display or graphic format, as needed.
H.1 Open Houses
The CONSULTANT shall prepare for, facilitate, and attend one (1) Open House to present the refined preferred alternative. The CONSULTANT shall coordinate the logistics for the open house including scheduling, location arrangements, multi-media advertisements (mailers, social media, newspapers), sign-in sheets, comment cards, display boards, handout materials. The Open House shall be held in Longview, WA. The CONSULTANT shall design a newspaper advertisement, and provide text for advertisements in coordination with WSDOT. WSDOT shall approve the newspaper advertisements prior to publication.

The advertisement shall be printed in English and in Spanish. The CONSULTANT shall provide an English/ Spanish translator in the open houses.

WSDOT, in coordination with the City of Longview (CITY), will be responsible for producing the advertisements and sending it out to the WSDOT’s local media contacts. The advertisements will clearly state that these meetings are part of the WSDOT and CITY’s effort to meet Section 106 public involvement requirements. The CONSULTANT shall provide open house information to WSDOT so the Project website can be updated.

The CONSULTANT shall schedule a 1-hour open house “dry run” meeting including the WSDOT and CITY staff members who plan to attend. These meetings will occur approximately one week prior to the Open House. Drafts of all display and handout materials, along with information about roles, responsibilities and staffing needs, will be reviewed and discussed at these meetings.

Assumptions:
- All print materials shall be printed in English and Spanish.

Deliverables:
- Preparation, facilitation, logistics, print materials, exhibits, for two open house.
- Comment card compilation, summary, responses and distribution to the project team, WSDOT and CITY for each open house;
- Document public meeting comments and one hard copy and one electronic copy of documentation;
- Develop a newspaper advertisement for publication in The Daily News;
- Develop, coordinate, produce, and distribute press releases and direct mail notification for each open house and the access hearing;
- Email WSDOT with information on web site updates; and
- Preparation and facilitation for two 1-hour open house "dry run" meetings.

H.2 Limited Access Hearing
The CONSULTANT shall prepare for, facilitate, and attend a Limited Access Hearing.

The CONSULTANT shall prepare and develop the Limited Access Hearing plans scripts, exhibits, and reports. The CONSULTANT shall plan to submit up to fifteen (15) iterations of
the Access Hearing plans to WSDOT to review its accuracy and consistency. The CONSULTANT shall prepare an information packet that must be mailed to the abutters other entities in accordance with the WSDOT Design Manual.

The CONSULTANT shall provide the Hearing facilitator and a court reporter.

The CONSULTANT shall coordinate the logistics of the Limited Access Hearing, including scheduling, location arrangements, hearing room set-up (such as podium, microphones, chairs), multi-media advertisements (mailers, social media, newspapers), sign-in sheets, exhibits and handout materials. The Limited Access Hearing shall be held in Longview, WA. The CONSULTANT shall design a newspaper advertisement, and provide text for advertisement in coordination with WSDOT. WSDOT shall approve the newspaper advertisements prior to publication.

The advertisement shall be printed in English and in Spanish. The CONSULTANT shall provide the English/ Spanish translator during the hearing.

WSDOT, in coordination with the CITY, will be responsible for producing the advertisements and sending it out to the WSDOT’s local media contacts. The advertisements will clearly state that the Limited Access Hearing is part of the WSDOT and CITY’s effort to meet Section 106 public involvement requirements. The CONSULTANT shall provide Limited Access Hearing information to WSDOT so the Project website can be updated.

The CONSULTANT shall schedule a 1-hour open house “dry run” meeting including the WSDOT and CITY staff members who plan to attend. These meetings will occur approximately one week prior to the Limited Access Hearing. Drafts of all display and handout materials, along with information about roles, responsibilities and staffing needs, will be reviewed and discussed at these meetings.

**Assumptions:**

- All print materials shall be printed in English and Spanish.

**Deliverables:**

- Up to fifteen (15) iterations of Access Hearing plans and scripts for review of accuracy and consistency.
- Preparation, facilitation, logistics, print materials, exhibits, for the Hearing.
- Comment card compilation, summary, responses and distribution to the project team, WSDOT and CITY;
- Document public meeting comments and one hard copy and one electronic copy of documentation;
- Develop a newspaper advertisement for publication in The Daily News;
- Develop, coordinate, produce, and distribute press releases and direct mail notification for the Hearing;
- Email WSDOT with information on web site updates; and
• Preparation and facilitation for a 1-hour Access Hearing "dry run" meeting.

**PM I - Develop the Schedule (Design-Build Phase)**

The CONSULTANT shall prepare and submit to WSDOT a critical path method Project schedule (for the Design-Build Phase) utilizing Primavera P6 with the following information:

1. All activities necessary to complete the Project. Activities shall be grouped under Design or Construction, as applicable.
2. Planned order of work activities in a logical sequence.
3. Durations of work activities in working days.
4. Activity durations that are reasonable for the intended work.
5. Sufficient detail to evaluate the progress of individual activities on a daily basis.
6. Physical completion of all work within the authorized task order timeframe.

Restraints may be utilized but may not serve to change the logic of the network or the critical path. The schedule shall display, at a minimum, the following information:

1. Contract and Agreement Number and Title.
2. Critical Path.
3. Activity Description.
4. Milestone Description.
5. Activity Duration.
6. Predecessor Activities.
7. Successor Activities.
8. Early Start and Early Finish for each activity.
9. Total Float and Free Float for each activity.
10. Start and Completion Dates for the Design-Build Phase.
11. Design-Build Phase Milestones - Notice to Proceed, 2nd Notice to Proceed if needed for environmental or right-of-way phase, Substantial Completion Operational Completion, Physical Completion, and Project Completion.

The CONSULTANT shall determine activity durations utilizing the procedure outlined in the WSDOT Plans Preparation Manual based on quantities calculated, production rates, schedule, and critical path. The CONSULTANT shall provide backup calculations to support the durations determined for each activity. “Notes to the Engineer” shall be included in the same binder with the backup calculations to document background information and assumptions made.

*Deliverable(s):*

- Project schedule at 60%, 90%, and 100% RFP-completion.
- Binder with backup documents.

**PM J - Design-Build Estimate**

The CONSULTANT shall prepare an Engineer’s Estimate to reflect the expected Design-Build costs for the Project.

**J.1 Bid-Based Parametric Construction Cost Estimate**

The CONSULTANT shall base the construction estimate on the Conceptual Plan. For estimation purposes, the CONSULTANT shall break down the lump sum Project construction
costs by WSDOT standard bid items whenever possible. The CONSULTANT shall follow guidance provided in the WSDOT Plans Preparation Manual and base costs on bid item history from recent projects. If a WSDOT standard bid item is not used for the estimate, the CONSULTANT shall make a reasonable estimate of those costs based on experience, supplier/fabricator quotes, or cost manuals. For the discipline areas where preliminary engineering is not a part of this SOW (see the appropriate section in Chapter 2 Technical Specifications) and the Conceptual Plan is not defined enough to even develop rough quantities, the CONSULTANT shall make a reasonable scoping-level estimate for those items.

The CONSULTANT shall coordinate with the WSDOT to review the estimate at 60% and 90% of RFP completion. Reviews should evaluate whether estimates reflect current bidding climate and trends and adjustments made accordingly.

**J.2 Design-Builder Design and Quality Management Plan Costs**

The CONSULTANT shall provide a cost estimate for the Design-Builder to design the Project and deliver Ready for Construction (RFC) Drawings. The CONSULTANT shall also estimate the Design-Builder’s costs to develop and implement a Quality Management Plan during the Design-Build Phase of the Project.

**J.3 Other Costs**

The CONSULTANT shall include in the estimate all other miscellaneous costs that are not included in J.1 and J.2 including, but not limited to, Washington State Patrol, Environmental mitigation costs, Partnering, Disputes Review Board, and the Design-Build stipend.

The CONSULTANT shall prepare backup calculations and spreadsheets to illustrate quantities and prices for each item, as needed. “Notes to the Engineer” shall be included in the same binder with the backup calculations to document background information or assumptions made.

WSDOT will calculate costs to administer and perform Quality Verification audits of the Project during the Design-Build Phase. WSDOT will also enter the total Project cost into EBase.

*Deliverable(s):*
- Estimate at 60%, 90% and 100% RFP-completion.
- Binder with backup documents.

**PROC - PROJECT PROCUREMENT (Request for Qualifications & Request for Proposals – Instructions to Proposers, CHAPTER 1 General Provisions, Appendices, and Forms)**

The Project will use a two-stage procurement process. The CONSULTANT shall prepare and complete all Contract procurement documents needed for issuing the RFQ and RFP.

WSDOT will perform all other aspects of the Project Procurement including HQ Contract Ad and Award Office coordination, meeting with Submitters/Proposers, answering RFQ/RFP questions, reviewing Alternate Technical Concepts (ATCs), performing evaluations, shortlisting Proposers,
and assigning technical credits for use in the Best Value determination. The CONSULTANT may be requested to assist with technical reviews in support of these efforts.

To develop the RFQ and RFP documents, the CONSULTANT shall provide an individual with good writing skills who can also act as the primary “gate-keeper” in ProjectWise to ensure documents are filed correctly and that the latest version of a document is being worked on. The CONSULTANT shall also manage access into ProjectWise. In addition to document control, this person shall also merge/assemble the different sections into one final document and shall bookmark each section of the Table of Contents.

To develop the RFQ and RFP documents, the CONSULTANT shall utilize the most-current FHWA-approved Design-Build Microsoft Word RFQ, ITP, and RFP templates (available on the WSDOT Design-Build Program SharePoint site) as a starting point for the Project. The CONSULTANT shall add project information to the template fill-ins (indicated by asterisks **--**.) The CONSULTANT shall also make modifications to the templates to reflect, at a minimum, Project-specific requirements, project size, region practice, and region Design-Build lessons-learned.

The CONSULTANT shall follow the WSDOT Design-Build Style Guide and make all edits in Microsoft Word using “track-changes”. The CONSULTANT shall also add comments in the document that provide the background or justification for each change. The CONSULTANT shall not “Accept” any changes until the Final version and the Assistant State Construction Engineer has concurred with all the changes. As the last step prior to “Issue”, the CONSULTANT shall merge “Accepted” individual sections into one Final document, format the Table of Contents, and save the file as a pdf.

If new versions of the FHWA-approved documents are released before the Project RFQ/RFP documents are “Issued” for response by the Submitters/Proposers, the CONSULTANT shall update all Project documents to reflect the changes unless directed otherwise by WSDOT.

The CONSULTANT shall coordinate reviews of the RFQ and the RFP procurement documents with WSDOT at 60%, 90%, and Final-completion. See Section E.4 RFQ – Page Turns and E.5 RFP – Page Turns in this Scope of Work.

The 90% procurement documents shall be submitted for review a minimum of ten (10) weeks prior to the issue date. The CONSULTANT shall respond to, address, and/or revise the documents based on WSDOT comments for each review.

The Final documents shall be submitted four (4) weeks prior to the issue date.

The CONSULTANT shall assist WSDOT with preparing addenda to the RFQ/RFP documents as requested.

**PROC A - Request for Qualifications**

The CONSULTANT shall work with WSDOT to determine the Project Goals and develop the RFQ documents. The CONSULTANT shall also edit the RFQ forms to reflect the project information and format the electronic documents to be “fillable” by the Submitters.
PROC B - Request for Proposals – Instructions to Proposers
The CONSULTANT shall work with WSDOT to determine the requirements for the Proposal content, including but not limited to page limits, goals and evaluation criteria, and technical credits. The CONSULTANT shall develop the ITP document.

The CONSULTANT shall work with WSDOT to define the Basic Configuration and develop RFP – CHAPTER 1 General Provisions section.

WSDOT will establish contract goals for DBE Participation and amounts to assess as Liquidated Damages for traffic impacts.

PROC D - Request for Proposals – Appendices
Starting with the RFP Appendices for the most recent Design-Build project in the region, the CONSULTANT shall consult with WSDOT to obtain, assemble, and edit, as needed, all current and relevant Contract, Basic Configuration, and Reference documents consistent with specifications and standards across the state or in the Southwest Region. The CONSULTANT shall review each document with the Project Office and designate them as either Contract, Basic Configuration, or Reference documents. The CONSULTANT shall incorporate these documents into the RFP Appendices.

WSDOT will develop several documents that may constitute a portion of the documents the Consultant shall include in the Appendices for the following disciplines (See appropriate chapter in Section 2 of this Scope of Work for additional details):

- Survey.
- Geotechnical Design.
- Pavement Design.
- Environmental Permitting.
- Bridge Design.

Deliverable(s):
- 60%, 90% and Final RFP Appendices – Contract, Basic Configuration, and Reference documents, as applicable.

PROC E - Request for Proposals – Forms
The CONSULTANT shall coordinate with WSDOT to determine the required RFP forms (Contract Form and the forms included in Appendix A of the ITP). The CONSULTANT shall edit the RFP forms to reflect the project information and format the electronic documents to be “fillable” by the Proposers.

The CONSULTANT shall submit all 60%, 90%, and Final documents electronically in Microsoft Word format (with tracked changes and comments except for the Final) into a designated folder on the Project document control web site. In addition, the CONSULTANT shall also submit all Final documents, except for “fillable” forms, electronically in pdf format for posting to the WSDOT Project Page.
Deliverable(s):
- 60%, 90%, and Final RFQ documents.
- 60%, 90%, and Final RFP documents.
- Final Excel, Word, and pdf electronic files.

2 – PRELIMINARY ENGINEERING & PROJECT PROCUREMENT (Request for Proposals – CHAPTER 2 Technical Requirements)

The CONSULTANT shall perform preliminary engineering and prepare the Technical Requirements (including developing the Basic Configuration, Conceptual Plans (unless noted otherwise in this Scope of Work), and design documentation) and all Contract procurement documents needed for issuing the RFP. The CONSULTANT shall be responsible for all aspects of project development and delivery consistent with a Design-Build contract which include, but are not limited to, project administration, surveying, basemap development, roadway design, channelization, geotechnical investigation and analysis, bridge and structure design, hydraulics analysis and associated design, drainage design, signing design, temporary and permanent illumination design, traffic control, construction staging, temporary erosion sediment control and countermeasures, landscaping design, identification of temporary and permanent right of way needs, identification and resolution of utilities conflicts, support for environmental permitting, environmental mitigation design, design documentation, cost estimates, specifications and all other analyses and/or design activities necessary to complete the contract documents for RFP development.

The CONSULTANT shall coordinate reviews of the RFP procurement documents with WSDOT at 60%, 90%, and Final-completion. See Section E.5 RFP – Page Turns in this Scope of Work.

The 90% procurement documents shall be submitted for review a minimum of twelve (12) weeks prior to the issue date. The CONSULTANT shall respond to, address, and/or revise the documents based on WSDOT comments for each review.

The final documents shall be submitted four (4) weeks prior to the issue date.

The CONSULTANT shall use Bentley MicroStation Version 8i to produce the Computer Aided Drafting and Design (CADD) files for any plan sheets created in support of the procurement documents.

The CONSULTANT shall submit all 60%, 90%, and Final documents electronically in Microsoft Word format (with tracked changes and comments except for the Final) into a designated folder on the Project document control web site. In addition, the CONSULTANT shall also submit all Final documents, except for “fillable” forms, electronically in pdf format for posting to the WSDOT Project Page.

2.1 - General Information
2.1.A Preliminary Engineering and Conceptual Plans - Not Applicable

2.1.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.1 – General Information to reflect the Project technical requirements.
Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.1 – General Information.

2.2 - Mandatory Standards

2.2.A Preliminary Engineering and Conceptual Plans - Not Applicable

2.2.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.2 – Mandatory Standards to reflect the Project technical requirements.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.2 – Mandatory Standards.

2.3 - Vacant

2.4 - Vacant

2.5 - Survey

2.5.A Preliminary Engineering and Conceptual Plans
WSDOT will perform surveys of the Project site to advance the preliminary engineering and procurement for delivery of the Project such as:
- Topographic survey of SR 432, SR 433, and Oregon Way between the SR432/433 intersection up to Oregon Way/Alabama St. intersection, East Port way and West Port Way.
- Wetlands and Ordinary High Water Mark (OHWM) as delineated by WSDOT crews (See Section 2.8A Environmental).
- Geotechnical boring and instrumentation locations (up to thirty [30] locations)
- WSDOT monumentation in the roadway and on the right of way, property corners, fence lines, any physical improvements at the site, utilities above and below ground and any other features to encompass the Project site to be used in the preliminary design.
- Outer limits of right-of-way acquisition needs (See Section 2.24 Right-of-Way) as identified by the CONSULTANT that may include, but is not limited to:
  ➢ Fee title acquisition areas
  ➢ Permanent Easements
  ➢ Temporary Construction Easements
  ➢ Location, extent and type of limited access
  ➢ Turnback lines
  ➢ Relinquishment areas
- Key features to be included on the Right-of-Way Plans (See Section 2.24 Right-of-Way) that may include, but is not limited to:
  ➢ Mitigation Areas
  ➢ Stormwater Treatment Areas
  ➢ City limits
  ➢ Wells, septic tanks, buildings, railroad tracks, diking district features, major utility corridors (such as BPA or Gas) all within 100’ of the proposed R/W line.

All survey data collected by the CONSULTANT for this Project shall be in Washington State Plane South Zone coordinate system.
Deliverable(s):
- None

2.5.B     RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.5 – Survey to reflect the Project technical requirements.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.5 Survey.

2.6 - Geotechnical
2.6.A   Preliminary Engineering and Conceptual Plans
WSDOT will perform geotechnical drilling, field and lab testing, engineering, and seismic design.

At the start of the work, WSDOT will update the CONSULTANT with an initial overview of the Project geotechnical conditions based on readily available geotechnical and geologic data for the Project area. WSDOT will identify geotechnical factors that may have an impact on the Project.

The CONSULTANT shall coordinate with WSDOT and provide any necessary design information for WSDOT to plan and conduct the field investigation for the Project including project site data for wall alignments.

The CONSULTANT shall work with WSDOT to establish due dates for deliverables produced by both parties for the others use.

WSDOT will write the Geotechnical Baseline Report, Geotechnical Data Report, and Reference Report. The CONSULTANT shall incorporate these reports into the RFP Appendices.

Deliverable(s):
- Project site data.
- Deliverable schedule.

The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.6 – Geotechnical for the Project.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.6 - Geotechnical.

2.7 - Pavement
2.7.A    Preliminary Engineering and Conceptual Plans
WSDOT will core the asphalt within the Project limits to determine existing pavement depths and condition. WSDOT will also design the permanent roadway pavement section for the Project; temporary paving sections for staging will be designed by the Design-Builder.
The CONSULTANT shall coordinate with the WSDOT and provide any necessary design information for them to plan and conduct the field investigation for the Project.

The CONSULTANT shall work with the WSDOT to establish due dates for deliverables produced by both parties for the other’s use.

WSDOT will prepare the Project Resurfacing Report for the permanent roadway pavement section. The CONSULTANT shall incorporate this report into the RFP Appendices.

**Deliverable(s):**
- Project site data.
- Deliverable schedule.

### 2.7.B RFP – Technical Requirements

The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.7 – Pavement to reflect the Project technical requirements.

**Deliverable(s):**
- 60%, 90% and Final RFP Chapter 2.7 - Pavement.

### 2.8 - Environmental

#### 2.8.A Preliminary Engineering and Conceptual Plans

WSDOT will be responsible for preparing environmental documentation and obtaining all environmental permits. The CONSULTANT shall assist WSDOT as needed and provide any design information necessary to complete the environmental tasks.

WSDOT will be responsible for preparing environmental documentation in conformance with the National Environmental Policy Act and State Environmental Policy Act. WSDOT will obtain the environmental permits needed for the Project including, but not limited to, the following:

- Section 404 of Clean Water Act - US Army Corps of Engineers.
- Hydraulic Project Approval - Washington Department of Fish and Wildlife
- Cowlitz County Critical Area Ordinance
- National Pollutant Discharge Elimination System (NPDES) – Washington Department of Ecology

WSDOT will determine the wetland delineation, and other Critical Resource Areas.

The CONSULTANT shall provide assistance to WSDOT by providing data and information needed for environmental documentation and permits including, but not limited to:

- Written detailed project description narrative,
- Area of Potential Effect (APE),
- Preliminary plans,
- Cut and fill area and earthwork quantities,
- Clearing and grubbing limits, including any potential stormwater facilities, staging,
stockpile, or access areas
- Area and quantities of cut and fill within wetlands and wetland buffers,
- Temporary and permanent vegetation impacts (upland and riparian disturbance areas),
- Existing and proposed quantities of impervious surface,
- Details regarding the proposed structure and construction methods,
- Estimated number of working days,
- Construction equipment list,
- Potential staging locations,
- Potential construction access,
- Stormwater treatment details (if required).

The CONSULTANT shall respond to WSDOT’s questions and additional data requests.

The CONSULTANT shall coordinate with WSDOT representatives, as necessary, to identify probable mitigation needs and include associated Project goals and/or mitigation performance specifications in the Project Procurement documents, as deemed necessary.

The CONSULTANT shall incorporate the WSDOT-prepared permit documents indicated above into the RFP Appendices

*Deliverable(s):*
- Area of Potential Effect (APE).
- Project description with construction methodology for environmental permits.
- Assistance, as needed, with drawings/figures showing proposed impact areas, including wetland, OHWM and wetland buffer impacts, and other drawings and technical data needed for environmental documentation and permits.
- Drawings showing probable impacts to Critical Area Resources.

2.8.B RFP – Technical Requirements
WSDOT will write RFP Chapter 2.8 – Environmental for the Project. The CONSULTANT shall incorporate this version of Chapter 2.8 into the RFP.

2.9 - Communications
2.9.A Preliminary Engineering and Conceptual Plans - Not Applicable

2.9.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.9 – Communications to reflect the Project technical requirements.

*Deliverable(s):*
- 60%, 90% and Final RFP Chapter 2.9 Communications.

2.10 - Utilities and Relocation Agreements
2.10.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall identify utilities that will be impacted by the Project. Known utilities in the Project area include:
• Municipal Water
  o City of Longview
• Sanitary Sewer Service
  o City of Longview
• Storm Drainage
  o City of Longview
  o Consolidated Diking Improvement District No. 1
  o WSDOT
• Telephone, Fiber Optics and Cable Television
  o Century Link
  o Comcast
  o NoaNet
  o Sprint
  o Wave Broadband/ Cascade Network
• Electrical Services
  o Bonneville Power Association
  o Cowlitz County PUD

The CONSULTANT shall perform a subsurface utility engineering (SUE) study in the project area to collect reliable subsurface utility information using methods and techniques outlined in CI/ASCE 38-02 “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data” to produce a two-dimensional (2D) map and a three-dimensional (3D) models. The CONSULTANT shall perform the SUE study in compliance with applicable Washington’s 2011 Underground Utilities Damage Prevention Act, any permits, and specifications, and shall coordinate with Utility Owner and other inspectors, as required.

The CONSULTANT shall collect utility features to an accuracy of 0.10’ horizontally and 0.10’ vertically (+/- 0.03), providing quality level A (QLA) data, as identified in the ASCE 38-02 standards. Buried utilities are to be collected at the top of the conduit, while elements such as hand holes, junction boxes, clean out, etc. are collected at the top center. Overhead items such as power poles are to be collected at the center of the pole. Pole owner, style and badge ID are noted at each object. The CONSULTANT shall assemble all data collected through survey efforts into an ASCII formatted file that will include Point Number, Northing, Easting, Elevation, Code, Attribute, and Collection Method to produce a 3D model of the SUE project area, allowing content to be directly used by WSDOT.

The CONSULTANT shall develop a Traffic Control Plan describing how to provide safe and efficient movement of vehicular, bicycle and pedestrian traffic through and around a work zone. The Traffic Control Plan must be submitted to WSDOT a minimum of ten (10) working days prior to the start of work that will impact traffic flow patterns to allow for review and approval. The Traffic Control Plan must include, but not limited to, the following:

• Proposed order, duration, and type(s) of the traffic control measure(s) to be used during on-site activities.

WSDOT will perform all coordination with the utility companies with the CONSULTANT providing assistance as necessary. The CONSULTANT shall provide WSDOT with Conceptual Plans to assist with any utility coordination efforts.
Deliverable(s):
• Drawings and data needed to support utility coordination.
• ASCII formatted file that includes data Point Number, Northing, Easting, Elevation, Code, Attribute, and Collection Method
• Three-dimensional (3D) models of subsurface utilities.
• Traffic Control Plan

2.10.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.10 – Utilities to reflect the Project technical requirements.

Deliverable(s):
• 60%, 90% and Final RFP Chapter 2.10 - Utilities.

2.11 - Roadway
2.11.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall develop the preliminary roadway design based on the Project Conceptual Plans. The Project roadway geometry, including the vertical and horizontal alignments, for SR 432, SR 433, East Port Way, West Port Way, Oregon Way and any temporary roadway alignments for use during construction shall be designed in accordance with the WSDOT Design Manual and other applicable design standards/manuals.

The CONSULTANT shall identify bicycle and/ or pedestrian paths that will connect the Highlands Neighborhood to the businesses along SR432, East Port Way, West Port Way and the Lewis and Clark Bridge.

The CONSULTANT shall document, and submit to WSDOT for approval, all design decisions.

Deliverable(s):
• Submit preliminary design for all roadway elements and any associated documentation of design decisions for WSDOT concurrence.
• Conceptual plans consisting of, at a minimum, vertical and horizontal profiles and cross-sections.

2.11.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.11 – Roadway to reflect the Project technical requirements.

Deliverable(s):
• 60%, 90% and Final RFP Chapter 2.11 Roadway.

2.12 - Project Documentation
2.12.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall develop and assemble the Design Approval package in accordance with the WSDOT Design Manual and other applicable design standards and in consultation with WSDOT and FHWA.
WSDOT will provide engineering documentation previously completed by WSDOT such as the Project Definition and the Project Delivery Method Selection Guide worksheet.

The CONSULTANT shall submit the Preliminary and Intermediate Design Approval package at the 60% and 90% completion level of the RFP documents and the Final Design Approval package ten (10) weeks before the RFP issue date. The Final Design Approval package will need to be approved and signed off by WSDOT Southwest Region, WSDOT HQ, and FHWA.

The CONSULTANT shall assume up to ten (10) meetings with WSDOT to review the Design Approval package.

**Deliverable(s):**
- Up to ten (10) meetings.
- Preliminary and Intermediate Design Approval package for review.
- Final Stamped Design Approval package for signatures.
- Writeable, electronic copy of the Final Design Approval package.
- Any associated design calculations and backup.


The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.12 – Project Documentation to reflect the Project technical requirements.

**Deliverable(s):**
- 60%, 90% and Final RFP Chapter 2.12 - Project Documentation.

### 2.13 - Bridges and Structures

#### 2.13.A  Preliminary Engineering and Conceptual Plans

The CONSULTANT shall prepare Bridge Site Data for the Project that includes all applicable items on the Structure Site Data Checklist (Exhibit 710-1) in the WSDOT Design Manual. Bridge Site Data shall be submitted to the WSDOT by the delivery date mutually agreed on and shown on the endorsed Project schedule.

WSDOT will complete the Conceptual Bridge Plans. The CONSULTANT shall coordinate with WSDOT and provide them with any necessary design information.

The CONSULTANT shall prepare Conceptual Wall Plans that tie into the Conceptual Bridge Plan wingwalls.

The CONSULTANT shall also develop bridge and wall costs that reflect the Conceptual Plans to be included in PM J - Design-Build Estimate of this Scope of Work.

**Deliverable(s):**
- Bridge Site Data and all applicable CAD files, tables, forms, cross-sections, and other items identified on the Structure Site Data Checklist (Exhibit 710-1) in the WSDOT Design Manual.
- Conceptual Wall Plans.
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.13 – Bridges and Structures to reflect the Project technical requirements.

*Deliverable(s):*
- 60%, 90% and Final RFP Chapter 2.13 – Bridges and Structures.

2.14 - Hydraulics

2.14.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall perform technical analysis, preliminary design and documentation activities which may include: development of anticipated hydrology, topographic map review, structure sizing and associated design, and roadway drainage design.

The CONSULTANT will prepare the Preliminary Hydraulic Design that establishes the site hydrology following the template provided by WSDOT. The CONSULTANT shall include the Preliminary Hydraulic Design in the RFP Appendices as a Reference Document and could be utilized by the Design-Builder as the basis for the Final Hydraulic Design.

The CONSULTANT shall develop a Conceptual Hydraulic Report and associated roadway drainage design for the Project in accordance with the WSDOT Hydraulics Manual and Highway Runoff Manual. The Conceptual Hydraulic Report shall be included in the RFP Appendices as a Reference Document and could be utilized by the Design-Builder as the basis for the Final Hydraulic Report.

*Deliverable(s):*
- Conceptual Hydraulics Report for all roadway elements and any associated documentation of design decisions for WSDOT concurrence. Engineer preparing the Conceptual Hydraulics Report shall have current (2014 or newer) HRM certification through WSDOT.
- Conceptual drainage plans and details.
- Preliminary Hydraulic Design (PHD) with hydraulic design files used.

The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.14 – Hydraulics to reflect the Project technical requirements.

*Deliverable(s):*
- 60%, 90% and Final RFP Chapter 2.14 - Hydraulics.

2.15 - Roadside Restoration

2.15.A Preliminary Engineering and Conceptual Plans
WSDOT will develop a Conceptual Roadside Restoration Plan to restore anticipated disturbed areas and roadside function in accordance with the WSDOT Roadside Policy Manual. Based on the Conceptual Plan, the CONSULTANT shall provide information and Project environmental impacts such as the Project footprint and anticipated disturbed areas to WSDOT.
(See Section 2.8 Environmental).

WSDOT will locate and design off-site mitigation areas, if applicable. (See Section 2.24 Right-of-Way)

2.15.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.15 – Roadside Restoration to reflect the Project technical requirements in consultation with WSDOT.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.12 – Roadside Restoration.

2.16 - Illumination
2.16.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall develop illumination design concepts in order to prepare preliminary construction cost estimates only. The CONSULTANT shall coordinate with the WSDOT to review design concepts.

Deliverable(s):
- Illumination systems cost estimate

2.16.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.16 – Illumination to reflect the Project technical requirements in consultation with the WSDOT.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.16 – Illumination.

2.17 - Signal Design
2.17.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall develop basic signal design (signal needs and feasibility of installation) in order to develop preliminary construction cost estimates only. The CONSULTANT shall coordinate with the WSDOT to review design concepts.

Deliverable(s):
- Signal equipment cost estimates

2.17.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.18 – Signal Design to reflect the Project technical requirements in consultation with the WSDOT.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.17 – Signal design.
2.18 - Intelligent Transportation Systems (ITS)
  2.18.A Preliminary Engineering and Conceptual Plans – Not Applicable

  2.18.B RFP – Technical Requirements
  The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.18 – Intelligent Transportation Systems (ITS) to reflect the Project technical requirements in consultation with the WSDOT.

  Deliverable(s):
  • 60%, 90% and Final RFP Chapter 2.18 – Intelligent Transportation Systems (ITS).

2.19 - Signing
  2.19.A Preliminary Engineering and Conceptual Plans
  The CONSULTANT shall develop signing design concepts in order to prepare preliminary construction cost estimates only. The CONSULTANT shall coordinate with the WSDOT to review design concepts.

  Deliverable(s):
  • Signing cost estimate

  The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.19 – Signing to reflect the Project technical requirements in consultation with the WSDOT.

  Deliverable(s):
  • 60%, 90% and Final RFP Chapter 2.19 – Signing.

2.20 - Pavement Marking
  2.20.A Preliminary Engineering and Conceptual Plans
  The CONSULTANT shall develop conceptual pavement marking plan in order to prepare preliminary construction cost estimates only. The CONSULTANT shall coordinate with the WSDOT to review design concepts.

  Deliverable(s):
  • Pavement marking cost estimate

  2.20.B RFP – Technical Requirements
  The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.20 – Pavement Marking to reflect the Project technical requirements.

  Deliverable(s):
  • 60%, 90% and Final RFP Chapter 2.20 – Pavement Marking.
2.21 - Traffic Operations


The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.21 – Traffic Operations to reflect the Project technical requirements.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.21 – Traffic Operations.

2.22 - Maintenance of Traffic (MOT)

2.22.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall coordinate with WSDOT to develop any conceptual construction staging drawings, construction access, and Traffic Control Plans deemed necessary by the Project Team to include in the procurement documents.

Deliverable(s):
- Conceptual Staging Drawings, construction access, and Traffic Control Plans, if needed.

2.22.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.22 – Maintenance of Traffic (MOT) to reflect the Project technical requirements in consultation with the WSDOT.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.22 – Maintenance of Traffic (MOT).

2.23 - Railroads

2.23.A Preliminary Engineering and Conceptual Plans
The CONSULTANT shall obtain necessary permits prior to entering the railroad right-of-way.

The CONSULTANT shall facilitate up to five (5) meetings with the railroad owners and WSDOT to discuss possible impacts to their operations and facilities. These meetings will be held in WSDOT Kelso Area Engineering Office.

Deliverable(s):
- Up to five (5) meetings with the railroad owners in WSDOT Kelso Area Engineering Office.

2.23.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.23 – Railroads to reflect the Project technical requirements.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.23 Railroads.
2.24 - Right-of-Way

2.24.A Preliminary Engineering and Conceptual Plans

The CONSULTANT, in consultation with WSDOT, shall determine temporary and permanent right-of-way necessary for the Project. This includes, but is not limited to, parcels within the Project limits that will be impacted by any temporary detour access road, construction activities, construction staging areas, and/or environmental mitigation. Permanent right-of-way is anticipated for this Project.

The CONSULTANT shall obtain deeds and title reports for impacted parcels and provide WSDOT with information, technical data, and assistance needed to obtain any identified TCEs, permits, and acquisitions. WSDOT will be responsible for working with the affected landowners to obtain TCEs, permits, and other property rights. WSDOT will develop a Sundry Site Plan, if needed (See Section 2.15 Roadside Restoration).

WSDOT will complete the red and green markups to existing Right-of-Way Plans (See Section 2.5 Survey) and coordinate with WSDOT HQ for approval.

Deliverable(s):
- Deeds and title reports for impacted parcels.
- Drawings, information, and technical data needed to obtain temporary easements and permanent right-of-way acquisitions (See Section 2.5 Survey).


The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.24 – Right-of-Way to reflect the Project technical requirements.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.24 Right-of-Way.

2.25 - Control of Materials

2.25.A Preliminary Engineering and Conceptual Plans - Not Applicable

2.25.B RFP – Technical Requirements

The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.25 – Control of Materials to reflect the Project technical requirements.

Deliverable(s):
- 60%, 90% and Final RFP Chapter 2.25 Control of Materials.

2.26 - Vacant

2.27 - Vacant
2.28 - Quality Management Plan (QMP)

2.28.A Preliminary Engineering and Conceptual Plans - Not Applicable

2.28.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.28 – Quality Management Plan to reflect the Project technical requirements.

Deliverable(s):
• 60%, 90% and Final RFP Chapter 2.28 Quality Management Plan.

2.29 - Maintenance During Construction

2.29.A Preliminary Engineering and Conceptual Plans - Not Applicable

2.29.B RFP – Technical Requirements
The CONSULTANT shall modify the current FHWA-approved Design-Build template for RFP Chapter 2.29 – Maintenance During Construction to reflect the Project technical requirements.

Deliverable(s):
• 60%, 90% and Final RFP Chapter 2.29 Maintenance During Construction.