### CITY OF MARYSVILLE AGENDA BILL

### **EXECUTIVE SUMMARY FOR ACTION**

### CITY COUNCIL MEETING DATE: February 24, 2014

AGENDA ITEM:					
Professional Services Agreement with HDR Engineering for preliminary engineering and					
environmental documentation in support of the Interstate 5/SR 529 Interchange Expansion Project					
PREPARED BY:	DIRECTOR APPROVAL:				
Patrick Gruenhagen, Project Manager					
DEPARTMENT:					
Public Works / Engineering					
ATTACHMENTS:					
Professional Services Agreement					
BUDGET CODE:	AMOUNT:				
30500030.563000 R1402	\$1,393,837.00				

#### **SUMMARY:**

On August 26, 2013, the City issued a Request for Proposals to three firms from its 2013 consultant roster, asking that they submit proposals stating their qualifications to deliver preliminary design and environmental documentation for the City's Interstate 5 / SR 529 Interchange Expansion Project. The three firms included BergerABAM, CTS Engineers, and HDR Engineering.

Subsequent to the City's review of proposals, each of the three firms was invited to assemble teams to participate in interviews, which were conducted on October 23. As with the proposals, the purpose of the interviews was to provide the City an opportunity to assess the relative qualifications of each of the three firms, and to make a determination as to which of the three was the best "fit" for the project and the work at hand. After considerable deliberation, the City's selection committee ultimately developed an appreciation that all of the firms were extremely high caliber and well-poised to undertake the type of work anticipated on this project, but concluded that HDR was in fact the best equipped of the three.

The attached Professional Services Agreement would establish the framework for pursuit of the following elements of work: a) advancement of preliminary design (plans, specifications and estimate, through 30% completion) for expansion of the existing I-5 / SR 529 interchange; b) preparation of environmental documentation in accordance with SEPA and NEPA; c) coordination with resource agencies for the purposes of applying for and, ultimately, obtaining necessary environmental permits; and d) support for Right of Way acquisition.

HDR impressed the City for having a strong background on projects very similar to the current project, and its team members appear genuinely enthusiastic about the prospect of working with the City to ensure that the project becomes a success. Moreover, it is staff's opinion that the negotiated fee of \$1,393,837.00 is fair and reasonable. In light of these facts, staff is confident that the City would be well-served by this contract.

### **RECOMMENDED ACTION:**

Staff recommends that Council authorize the Mayor to sign the enclosed professional services agreement with HDR, Inc. in the amount of \$1,393,837.00.

Local Agency Standard Consulta Agreement	nt		Consultant/Address/Telephone HDR Engineering, Inc. 500 108th Avenue NE Suit Bellevue, WA 98004-5549	
Architectural/Engineering Agreem  Personal Services Agreement Agreement Number	nent		TEL:425-450-6200	
R-1402			Project Title And Work Descriptio	n
Federal Aid Number  Agreement Type (Choose one)			Interstate 5 / SR 529 Inter Prepare "Interchange Justifica coordinate with City, WSDOT purpose of facilitating agreem	tion Report" and F, FHWA, and others, for
Lump Sum Lump Sum Amount \$			Need, and obtaining approval interchange improvements. Prengineering / design package;	repare 30% preliminary
⊠ Cost Plus Fixed Fee		٥,	in accordance with SEPA and permit applications in support	
Overhead Progress Payment Rate Overhead Cost Method	-	%	DBE Participation  Yes No	%
Actual Cost			Federal ID Number or Social Sec	urity Number
☐ Actual Cost Not To Exceed		%	47-0680	-
☑ Fixed Overhead Rate	158.06	%	Do you require a 1099 for IRS?	Completion Date
Fixed Fee \$ 112,741.00			☐ Yes ☒ No	June 30, 2015
☐ Specific Rates Of Pay			Total Amount Authorized	\$ 1,393,837.00
☐ Negotiated Hourly Rate			Management Peserve Fund	*
☐ Provisional Hourly Rate			Management Reserve Fund	
☐ Cost Per Unit of Work			Maximum Amount Payable	\$ 1,393,837.00
Index of Exhibits (Check all that app	ly):			
<ul> <li>☑ Exhibit A-1 Scope of Work</li> <li>☐ Exhibit A-2 Task Order Agreement</li> <li>☐ Exhibit B-1 DBE Utilization Certification</li> <li>☑ Exhibit C Electronic Exchange of Data</li> <li>☐ Exhibit D-1 Payment - Lump Sum</li> <li>☑ Exhibit D-2 Payment - Cost Plus</li> <li>☐ Exhibit D-3 Payment - Hourly Rate</li> <li>☐ Exhibit D-4 Payment - Provisional</li> <li>☑ Exhibit E-1 Fee - Lump/Fixed/Unit</li> <li>☐ Exhibit E-2 Fee - Specific Rates</li> <li>☑ Exhibit F Overhead Cost</li> <li>☑ Exhibit G Subcontracted Work</li> <li>☑ Exhibit G-1 Subconsultant Fee</li> </ul>			<ul> <li>□ Exhibit G-2 Fee-Sub Specific I</li> <li>□ Exhibit G-3 Sub Overhead Cos</li> <li>□ Exhibit H Title VI Assurances</li> <li>□ Exhibit I Payment Upon Termi</li> <li>□ Exhibit J Alleged Consultant D</li> <li>□ Exhibit K Consultant Claim Pr</li> <li>□ Exhibit L Liability Insurance In</li> <li>□ Exhibit M-1a Consultant Certif</li> <li>□ Exhibit M-1b Agency Official</li> <li>□ Exhibit M-2 Certification - Prin</li> <li>□ Exhibit M-3 Lobbying Certification</li> <li>□ Exhibit M-4 Pricing Data Certification</li> <li>□ App. 31.910 Supplemental Signature</li> </ul>	nation of Agreement Design Error Procedures occedures ncrease fication Certification mary ation fication
THIS AGREEMENT, made and entered into the			day of February	
-	f Marysvil	_		r called the "AGENCY",
and the above organization hereinafter called the	CONSU	LI.	ANI.	

DOT Form 140-089 EF Revised 3/2008

#### WITNESSETH THAT:

WHEREAS, the AGENCY desires to accomplish the above referenced project, and

WHEREAS, the AGENCY does not have sufficient staff to meet the required commitment and therefore deems it advisable and desirable to engage the assistance of a CONSULTANT to provide the necessary services for the PROJECT; and

WHEREAS, the CONSULTANT represents that he/she is in compliance with the Washington State Statutes relating to professional registration, if applicable, and has signified a willingness to furnish Consulting services to the AGENCY,

**NOW THEREFORE**, in consideration of the terms, conditions, covenants and performance contained herein, or attached and incorporated and made a part hereof, the parties hereto agree as follows:

### I General Description of Work

The work under this AGREEMENT shall consist of the above described work and services as herein defined and necessary to accomplish the completed work for this PROJECT. The CONSULTANT shall furnish all services, labor, and related equipment necessary to conduct and complete the work as designated elsewhere in this AGREEMENT.

### **II Scope of Work**

The Scope of Work and projected level of effort required for this PROJECT is detailed in Exhibit "A" attached hereto and by this reference made a part of this AGREEMENT.

### **III General Requirements**

All aspects of coordination of the work of this AGREEMENT with outside agencies, groups, or individuals shall receive advance approval by the AGENCY. Necessary contacts and meetings with agencies, groups, and/or individuals shall be coordinated through the AGENCY. The CONSULTANT shall attend coordination, progress and presentation meetings with the AGENCY and/or such Federal, State, Community, City or County officials, groups or individuals as may be requested by the AGENCY. The AGENCY will provide the CONSULTANT sufficient notice prior to meetings requiring CONSULTANT participation. The minimum required hours or days notice shall be agreed to between the AGENCY and the CONSULTANT and shown in Exhibit "A."

The CONSULTANT shall prepare a monthly progress report, in a form approved by the AGENCY, which will outline in written and graphical form the various phases and the order of performance of the work in sufficient detail so that the progress of the work can easily be evaluated.

The CONSULTANT, and each SUBCONSULTANT, shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The CONSULTANT, and each SUBCONSULTANT, shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the CONSULTANT to carry out these requirements is a material breach of this AGREEMENT that may result in the termination of this AGREEMENT.

Participation for Disadvantaged Business Enterprises (DBE), if required, per 49 CFR Part 26, or participation of Minority Business Enterprises (MBE), and Women Business Enterprises (WBE), shall be shown on the heading of this AGREEMENT. If D/M/WBE firms are utilized, the amounts authorized to each firm and their certification number will be shown on Exhibit "B" attached hereto and by this reference made a part of this AGREEMENT. If the Prime CONSULTANT is a DBE firm they must comply with the Commercial Useful Function (CUF) regulation outlined in the AGENCY'S "DBE Program Participation Plan". The mandatory DBE participation goals of the AGREEMENT are those established by the WSDOT'S Highway and Local Programs Project Development Engineer in consultation with the AGENCY.

All Reports, PS&E materials, and other data furnished to the CONSULTANT by the AGENCY shall be returned. All electronic files, prepared by the CONSULTANT, must meet the requirements as outlined in Exhibit "C."

All designs, drawings, specifications, documents, and other work products, including all electronic files, prepared by the CONSULTANT prior to completion or termination of this AGREEMENT are instruments of service for this PROJECT, and are the property of the AGENCY. Reuse by the AGENCY or by others, acting through or on behalf of the AGENCY of any such instruments of service, not occurring as a part of this PROJECT, shall be without liability or legal exposure to the CONSULTANT.

### IV Time for Beginning and Completion

The CONSULTANT shall not begin any work under the terms of this AGREEMENT until authorized in writing by the AGENCY.

All work under this AGREEMENT shall be completed by the date shown in the heading of this AGREEMENT under completion date.

The established completion time shall not be extended because of any delays attributable to the CONSULTANT, but may be extended by the AGENCY in the event of a delay attributable to the AGENCY, or because of unavoidable delays caused by an act of GOD or governmental actions or other conditions beyond the control of the CONSULTANT. A prior supplemental agreement issued by the AGENCY is required to extend the established completion time.

### **V Payment Provisions**

The CONSULTANT shall be paid by the AGENCY for completed work and services rendered under this AGREEMENT as provided in Exhibit "D" attached hereto, and by reference made part of this AGREEMENT. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work. The CONSULTANT shall conform to all applicable portions of 48 CFR Part 31.

A post audit may be performed on this AGREEMENT. The need for a post audit will be determined by the State Auditor, WSDOT External Audit Office and/or at the request of the AGENCY'S PROJECT Manager.

### **VI Sub-Contracting**

The AGENCY permits sub-contracts for those items of work as shown in Exhibit "G" attached hereto and by this reference made part of this AGREEMENT.

Compensation for this sub-consultant work shall be based on the cost factors shown on Exhibit "G."

The work of the sub-consultant shall not exceed its maximum amount payable unless a prior written approval has been issued by the AGENCY.

All reimbursable direct labor, overhead, direct non-salary costs and fixed fee costs for the sub-consultant shall be substantiated in the same manner as outlined in Section V. All sub-contracts shall contain all applicable provisions of this AGREEMENT.

With respect to sub-consultant payment, the CONSULTANT shall comply with all applicable sections of the Prompt Payment laws as set forth in RCW 39.04.250 and RCW 39.76.011.

The CONSULTANT shall not sub-contract for the performance of any work under this AGREEMENT without prior written permission of the AGENCY. No permission for sub-contracting shall create, between the AGENCY and sub-contractor, any contract or any other relationship. A DBE certified sub-consultant is required to perform a minimum amount of their sub-contracted agreement that is established by the WSDOT Highways and Local Programs Project Development Engineer in consultation with the AGENCY.

### **VII Employment**

The CONSULTANT warrants that they have not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award or making of this contract. For breach or violation of this warrant, the AGENCY shall have the right to annul this AGREEMENT without liability or, in its discretion, to deduct from the AGREEMENT price or consideration or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

Any and all employees of the CONSULTANT or other persons while engaged in the performance of any work or services required of the CONSULTANT under this AGREEMENT, shall be considered employees of the CONSULTANT only and not of the AGENCY, and any and all claims that may arise under any Workmen's Compensation Act on behalf of said employees or other persons while so engaged, and any and all claims made by a

third party as a consequence of any act or omission on the part of the CONSULTANT'S employees or other persons while so engaged on any of the work or services provided to be rendered herein, shall be the sole obligation and responsibility of the CONSULTANT.

The CONSULTANT shall not engage, on a full- or part-time basis, or other basis, during the period of the contract, any professional or technical personnel who are, or have been, at any time during the period of the contract, in the employ of the United States Department of Transportation, or the STATE, or the AGENCY, except regularly retired employees, without written consent of the public employer of such person.

### **VIII Nondiscrimination**

During the performance of this contract, the CONSULTANT, for itself, its assignees, and successors in interest agrees to comply with the following laws and regulations:

Title VI of the Civil Rights Act of 1964 (42 USC Chapter 21 Subchapter V Section 2000d through 2000d-4a)

Federal-aid Highway Act of 1973 (23 USC Chapter 3 Section 324)

Rehabilitation Act of 1973 (29 USC Chapter 16 Subchapter V Section 794)

Age Discrimination Act of 1975 (42 USC Chapter 76 Section 6101 et seq.)

Civil Rights Restoration Act of 1987 (Public Law 100-259)

American with Disabilities Act of 1990 (42 USC Chapter 126 Section 12101 et. seq.)

49 CFR Part 21

23 CFR Part 200

RCW 49.60.180

In relation to Title VI of the Civil Rights Act of 1964, the CONSULTANT is bound by the provisions of Exhibit "H" attached hereto and by this reference made part of this AGREEMENT, and shall include the attached Exhibit "H" in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

### IX Termination of Agreement

The right is reserved by the AGENCY to terminate this AGREEMENT at any time upon ten (10) days written notice to the CONSULTANT.

In the event this AGREEMENT is terminated by the AGENCY other than for default on the part of the CONSULTANT, a final payment shall be made to the CONSULTANT as shown in Exhibit "I" for the type of AGREEMENT used.

No payment shall be made for any work completed after ten (10) days following receipt by the CONSULTANT of the Notice to Terminate. If the accumulated payment made to the CONSULTANT prior to Notice of Termination exceeds the total amount that would be due when computed as set forth herein above, then no final payment shall be due and the CONSULTANT shall immediately reimburse the AGENCY for any excess paid.

If the services of the CONSULTANT are terminated by the AGENCY for default on the part of the CONSULTANT, the above formula for payment shall not apply.

In such an event, the amount to be paid shall be determined by the AGENCY with consideration given to the actual costs incurred by the CONSULTANT in performing the work to the date of termination, the amount of work originally required which was satisfactorily completed to date of termination, whether that work is in a form or a type which is usable to the AGENCY at the time of termination, the cost to the AGENCY of employing another firm to complete the work required and the time which may be required to do so, and other factors which affect the value to the AGENCY of the work performed at the time of termination.

Under no circumstances shall payment made under this subsection exceed the amount, which would have been made using the formula set forth above.

If it is determined for any reason that the CONSULTANT was not in default or that the CONSULTANT'S failure to perform is without the CONSULTANT'S or it's employee's default or negligence, the termination shall be deemed to be a termination for the convenience of the AGENCY. In such an event, the CONSULTANT would be reimbursed for actual costs in accordance with the termination for other than default clauses listed previously.

In the event of the death of any member, partner or officer of the CONSULTANT or any of its supervisory personnel assigned to the PROJECT, or dissolution of the partnership, termination of the corporation, or disaffiliation of the principally involved employee, the surviving members of the CONSULTANT hereby agree to complete the work under the terms of this AGREEMENT, if requested to do so by the AGENCY. This subsection shall not be a bar to renegotiation of the AGREEMENT between the surviving members of the CONSULTANT and the AGENCY, if the AGENCY so chooses.

In the event of the death of any of the parties listed in the previous paragraph, should the surviving members of the CONSULTANT, with the AGENCY'S concurrence, desire to terminate this AGREEMENT, payment shall be made as set forth in the second paragraph of this section.

Payment for any part of the work by the AGENCY shall not constitute a waiver by the AGENCY of any remedies of any type it may have against the CONSULTANT for any breach of this AGREEMENT by the CONSULTANT, or for failure of the CONSULTANT to perform work required of it by the AGENCY. Forbearance of any rights under the AGREEMENT will not constitute waiver of entitlement to exercise those rights with respect to any future act or omission by the CONSULTANT.

### X Changes of Work

The CONSULTANT shall make such changes and revisions in the complete work of this AGREEMENT as necessary to correct errors appearing therein, when required to do so by the AGENCY, without additional compensation thereof. Should the AGENCY find it desirable for its own purposes to have previously satisfactorily completed work or parts thereof changed or revised, the CONSULTANT shall make such revisions as directed by the AGENCY. This work shall be considered as Extra Work and will be paid for as herein provided under Section XIV.

### **XI Disputes**

Any dispute concerning questions of fact in connection with the work not disposed of by AGREEMENT between the CONSULTANT and the AGENCY shall be referred for determination to the Director of Public Works or AGENCY Engineer, whose decision in the matter shall be final and binding on the parties of this AGREEMENT; provided, however, that if an action is brought challenging the Director of Public Works or AGENCY Engineer's decision, that decision shall be subject to de novo judicial review. If the parties to this AGREEMENT mutually agree, disputes concerning alleged design errors will be conducted under the procedures found in Exhibit "J", and disputes concerning claims will be conducted under the procedures found in Exhibit "K".

### XII Venue, Applicable Law, and Personal Jurisdiction

In the event that either party deems it necessary to institute legal action or proceedings to enforce any right or obligation under this AGREEMENT, the parties hereto agree that any such action shall be initiated in the Superior court of the State of Washington, situated in the county in which the AGENCY is located. The parties hereto agree that all questions shall be resolved by application of Washington law and that the parties to such action shall have the right of appeal from such decisions of the Superior court in accordance with the laws of the State of Washington. The CONSULTANT hereby consents to the personal jurisdiction of the Superior court of the State of Washington, situated in the county in which the AGENCY is located.

### XIII Legal Relations

The CONSULTANT shall comply with all Federal, State, and local laws and ordinances applicable to the work to be done under this AGREEMENT. This contract shall be interpreted and construed in accordance with the laws of the State of Washington.

The CONSULTANT shall indemnify and hold the AGENCY and the STATE and its officers and employees harmless from and shall process and defend at its own expense all claims, demands, or suits at law or equity arising in whole or in part from the CONSULTANT'S negligence or breach of any of its obligations under this AGREEMENT; provided that nothing herein shall require a CONSULTANT to indemnify the AGENCY or the STATE against and hold harmless the AGENCY or the STATE from claims, demands or suits based solely upon the conduct of the AGENCY or the STATE, their agents, officers and employees; and provided further that if the claims or suits are caused by or result from the concurrent negligence of (a) the CONSULTANT'S agents or employees, and (b) the AGENCY or the STATE, their agents, officers and employees, this indemnity provision with respect to (1) claims or suits based upon such negligence (2) the costs to the AGENCY or the STATE of defending such claims and suits shall be valid and enforceable only to the extent of the CONSULTANT'S negligence or the negligence of the CONSULTANT'S agents or employees.

The CONSULTANT'S relation to the AGENCY shall be at all times as an independent contractor.

The CONSULTANT shall comply with all applicable sections of the applicable Ethics laws, including RCW 42.23, which is the Code of Ethics for regulating contract interest by municipal officers. The CONSULTANT specifically assumes potential liability for actions brought by the CONSULTANT'S own employees against the AGENCY and, solely for the purpose of this indemnification and defense, the CONSULTANT specifically waives any immunity under the state industrial insurance law, Title 51 RCW.

Unless otherwise specified in the AGREEMENT, the AGENCY shall be responsible for administration of construction contracts, if any, on the PROJECT. Subject to the processing of a new sole source, or an acceptable supplemental agreement, the CONSULTANT shall provide On-Call assistance to the AGENCY during contract administration. By providing such assistance, the CONSULTANT shall assume no responsibility for: proper construction techniques, job site safety, or any construction contractor's failure to perform its work in accordance with the contract documents.

The CONSULTANT shall obtain and keep in force during the terms of the AGREEMENT, or as otherwise required, the following insurance with companies or through sources approved by the State Insurance Commissioner pursuant to Title 48 RCW.

#### Insurance Coverage

- A. Worker's compensation and employer's liability insurance as required by the STATE.
- B. Commercial general liability and property damage insurance in an aggregate amount not less than two million dollars (\$2,000,000) for bodily injury, including death and property damage. The per occurrence amount shall not exceed one million dollars (\$1,000,000).
- C. Vehicle liability insurance for any automobile used in an amount not less than a one million dollar (\$1,000,000) combined single limit.

Excepting the Worker's Compensation Insurance and any Professional Liability Insurance secured by the CONSULTANT, the AGENCY will be named on all policies as an additional insured. The CONSULTANT shall furnish the AGENCY with verification of insurance and endorsements required by the AGREEMENT. The AGENCY reserves the right to require complete, certified copies of all required insurance policies at any time.

All insurance shall be obtained from an insurance company authorized to do business in the State of Washington. The CONSULTANT shall submit a verification of insurance as outlined above within fourteen (14) days of the execution of this AGREEMENT to the AGENCY.

No cancellation of the foregoing policies shall be effective without thirty (30) days prior notice to the AGENCY.

The CONSULTANT'S professional liability to the AGENCY shall be limited to the amount payable under this AGREEMENT or one million (\$1,000,000) dollars, whichever is the greater, unless modified by Exhibit "L". In no case shall the CONSULTANT'S professional liability to third parties be limited in any way.

The AGENCY will pay no progress payments under Section V until the CONSULTANT has fully complied with this section. This remedy is not exclusive; and the AGENCY and the STATE may take such other action as is available to it under other provisions of this AGREEMENT, or otherwise in law.

### **XIV Extra Work**

- A. The AGENCY may at any time, by written order, make changes within the general scope of the AGREEMENT in the services to be performed.
- B. If any such change causes an increase or decrease in the estimated cost of, or the time required for, performance of any part of the work under this AGREEMENT, whether or not changed by the order, or otherwise affects any other terms and conditions of the AGREEMENT, the AGENCY shall make an equitable adjustment in the (1) maximum amount payable; (2) delivery or completion schedule, or both; and (3) other affected terms and shall modify the AGREEMENT accordingly.
- C. The CONSULTANT must submit any "request for equitable adjustment", hereafter referred to as "CLAIM", under this clause within thirty (30) days from the date of receipt of the written order. However, if the AGENCY decides that the facts justify it, the AGENCY may receive and act upon a CLAIM submitted before final payment of the AGREEMENT.
- D. Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the CONSULTANT from proceeding with the AGREEMENT as changed.
- E. Notwithstanding the terms and conditions of paragraphs (A) and (B) above, the maximum amount payable for this AGREEMENT, shall not be increased or considered to be increased except by specific written supplement to this AGREEMENT.

### XV Endorsement of Plans

If applicable, the CONSULTANT shall place their endorsement on all plans, estimates, or any other engineering data furnished by them.

### XVI Federal and State Review

The Federal Highway Administration and the Washington State Department of Transportation shall have the right to participate in the review or examination of the work in progress.

### XVII Certification of the Consultant and the Agency

Attached hereto as Exhibit "M-1(a and b)" are the Certifications of the CONSULTANT and the AGENCY, Exhibit "M-2" Certification Regarding Debarment, Suspension and Other Responsibility Matters - Primary Covered Transactions, Exhibit "M-3" Certification Regarding the Restrictions of the Use of Federal Funds for Lobbying and Exhibit "M-4" Certificate of Current Cost or Pricing Data. Exhibit "M-3" is required only in AGREEMENTS over \$100,000 and Exhibit "M-4" is required only in AGREEMENTS over \$500,000.

### **XVIII Complete Agreement**

This document and referenced attachments contain all covenants, stipulations, and provisions agreed upon by the parties. No agent, or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein. No changes, amendments, or modifications of the terms hereof shall be valid unless reduced to writing and signed by the parties as an amendment to this AGREEMENT.

### XIX Execution and Acceptance

This AGREEMENT may be simultaneously executed in several counterparts, each of which shall be deemed to be an original having identical legal effect. The CONSULTANT does hereby ratify and adopt all statements, representations, warranties, covenants, and agreements contained in the proposal, and the supporting material submitted by the CONSULTANT, and does hereby accept the AGREEMENT and agrees to all of the terms and conditions thereof.

Ву	MMM_	Ву	
	ž.		

Agency City of Marysville

In witness whereof, the parties hereto have executed this AGREEMENT as of the day and year shown in the

"Execution Date" box on page one (1) of this AC/REEMENT.

Consultant Ronald G. Ohlsen

# Exhibit A-1 Scope of Services

City of Marysville
I-5/SR 529 Interchange Expansion Project — Phase 1
Environmental Documentation, Interchange Justification Report, and Preliminary Engineering

Submitted to: City of Marysville Marysville, Washington

February 2014

**Submitted by:** 

HDR Engineering, Inc. 500 108th Avenue NE, Suite 1200 Bellevue, Washington 98004

Job No. \_\_\_\_\_

# Exhibit A Scope of Services I-5/SR 529 Interchange Expansion Project

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### **ABBREVIATIONS**

The following abbreviations are referred to throughout this scope of work.

APE Area of Potential Effects

BA Biological Assessment

CO Carbon Monoxide

DCE Documented Categorical Exclusion

DNR Washington State Department of Natural Resources

DOE Washington State Department of Ecology

EA Environmental Assessment

ECS Environmental Classification Summary

EIS Environmental Impact Statement

EPA Environmental Protection Agency

ESA Environmental Site Assessment

EnSA Endangered Species Act

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration

GIS Geographic Information System

GSP General Special Provisions

HOV High-Occupancy Vehicle

IJR Intersection Justification Report

I-5 Interstate 5

LAG Local Agency Guidelines

LEP Limited English Proficiency

LOS Level of Service

MDNS Mitigated Determination of Non-Significance

NEPA National Environmental Policy Act

NHPA National Historic Preservation Act

NMFS National Marine Fisheries Service

PIP Public Interaction Plan

PSRC Puget Sound Regional Council

PS&E Plans, Specifications, and Estimates

QA/QC Quality Assurance/Quality Control

ROW Right-of-Way

SEPA State Environmental Policy Act

SOW Scope of Work

SR State Route

TAC Technical Advisory Committee

TDM Transportation Demand Management

TEEM TDM Effectiveness Estimation Methodology

TESC Temporary Erosion and Sedimentation Control

TNM Traffic Noise Model

TSM Transportation System Management

UCO Urban Corridors Office

USACE U.S. Army Corps of Engineers

USDOT U.S. Department of Transportation

USFWS U.S. Department of Fish and Wildlife Services

WDFW Washington State Department of Fish and Wildlife

WSDOT Washington State Department of Transportation

# SCOPE OF SERVICES I-5/SR 529 Interchange Expansion Project

## **Introduction**

The City of Marysville (CITY) has identified an interchange expansion alternative for the I-5/SR 529 Interchange Expansion Project (PROJECT) in Snohomish County, Washington. Under this scope of work (SOW), the CONSULTANT shall study this build alternative and refine its design to approximately a 30% level in order to meet Environmental requirements required for project approval of a proposed configuration for the PROJECT. Environmental effects of the proposed configuration will be evaluated in the preparation of a Documented Categorical Exclusion (DCE). In addition, the CONSULTANT shall conduct activities leading to the development of an interchange justification report (IJR). Work on the IJR shall be done in parallel and be part of the criteria for selection of the proposed action.

The environmental document shall be a combined National Environmental Policy Act (NEPA)/DCE and a State Environmental Policy Act (SEPA) Mitigated Determination of Non-Significance (MDNS) with an assumed year of opening of 2017 and a design year of 2040. It shall meet the requirements of the NEPA with respect to possible actions by the Federal Highway Administration (FHWA). The supporting NEPA documentation will be used to meet requirements of the SEPA.

The CITY reserves the right to add any or all of the following work to this agreement: additional environmental documentation, final plans and permitting, specifications, estimates, construction services, and additional services of an undetermined nature. At its option, the CITY may elect to do any or all of the additional work noted under separate agreements.

# **Project Description**

This project proposes to add two additional ramps connections between I-5 and SR 529. The first ramp will provide a direct freeway to freeway connection from northbound (NB) I-5 mainline to northbound (NB) SR 529 via a new system interchange ramp. The second ramp will provide a direct freeway to freeway connection from southbound (SB) SR 529 to SB I-5 via a new system interchange ramp. Both ramps will include physical and safety improvements necessary on both I-5 and SR 529 required to meet current WSDOT design requirements and standards (unless otherwise deviated). These additional improvements include lighting, ITS, signing, and required bridge and roadway widening associated with WSDOT channelization plan requirements. In addition, this project proposes to include an added northbound SR 529 deceleration/left turn lane upstream of the existing SR 520 Ebey Slough Bridge in order to

provide for a NB 529 to SB I-5 connection. See Figure 1 below for a graphical sketch representation of proposed interchange revision.



Figure 1

# **Scope of Services**

This SOW details work elements needed to support the CITY in the selection of a preferred final interchange solution, as well as NEPA, IJR documentation, and preliminary engineering of the PROJECT. The SOW shall consist of the following major work elements.

Work Element 1 – Project Management

- Work Element 2 IJR Support Team Meetings & Report
- Work Element 3 Forecasting & Modeling Update
- Work Element 4 Environmental Review and Documentation
- Work Element 5 Survey
- Work Element 6 Geotechnical Investigation & Reports
- Work Element 7 Preliminary Engineering
- Work Element 8 Right of Way
- Work Element 9 Public Involvement, Legislative Support, & Council Briefings

## **General Assumptions**

- This contract provides services for Environmental Documentation, IJR, and Preliminary Engineering for a system interchange revision of the I-5/SR 529 Interchange as defined in "Project Description" above.
- The Local Agency Environmental Classification Summary form (ECS) is the assumed NEPA document for a Documented Categorical Exclusion (DCE).
- Phase 2 Work consisting of Final Design, ROW Certification, and Construction Permitting will be scoped in follow-up task order. To maintain current proposed schedule, Phase 2 NTP is anticipated to be required in August 2014.
- All communications with resource agencies and the CITY will be coordinated through CITY's public works director and/or his designee, unless otherwise authorized.
- Required coordination by the CONSULTANT with outside agencies, groups, or individuals shall receive advance approval by the CITY's Public Works Department. The DCE and IJR shall conform to the Washington State Department of Transportation (WSDOT) standards and shall be developed in accordance with the latest editions, amendments, and revisions of the publications listed in this document, including updates.
- Changes in the detail of work beyond what is described in this SOW shall be made as requested by the CITY and authorized by amendment as extra work.
- Work detailed in this SOW shall be completed in accordance with the schedule below and per the project schedule developed under Task 1.6.

# Phase 1 — Environmental Documentation, NEPA/ SEPA, IJR and Preliminary Engineering

Consultant Notice to Proceed

February 2014

Preliminary Environmental Documentation August 2014

Draft IJR Complete August 2014

IJR Approval December 2014

NEPA DCE Complete December 2014

SEPA MDNS December 2014

Preliminary Engineering (30%) Complete November 2014

- The CONSULTANT shall operate similar to and shall fully support the CITY's Public Works
  Department. When alternatives are being considered or decisions are being made, the
  CITY, along with WSDOT and/or FHWA, will make final decisions.
- For any field investigations, acquiring the permission of private landowners whose property
  would be visited will be the responsibility of the CITY. Permission must be obtained prior to
  fieldwork on privately owned land. Right-of-entry permits may take up to 60 days to
  acquire.
- The CONSULTANT shall use the following computer software in the performance of the engineering and design work for this contract:
  - Engineering software: InRoads (version 08.08.00.46, or latest)
  - CAD software: Bentley MicroStation (version 8.05.02.70, or latest) and AutoCAD (version currently used by CITY)
  - o Drainage software: Stormshed and MGS Flood w/Continuous Rainfall Model
  - Scheduling software: Microsoft Project or Primavera P6
  - Microsoft Office, Word, Excel (latest version)
  - English units for plans, engineering, and environmental documents
- It may be necessary for the CITY to acquire ROW for this project.
- PS&E will be prepared per WSDOT Plans Prep manual requirements
- System Interchange ramps will be designed to "mid-range" design speeds per WSDOT Design Manual Exhibit 1360-4.

### **Work Performed by the CITY**

Throughout the duration of the project, the CITY will perform services, furnish information, and answer questions on CITY standard procedures for plan preparation.

The following services will be performed by the CITY:

- CITY will provide meeting location/conference room for all IJR/Stakeholder meetings throughout the life of this contract. Meetings will occur at Public Works building in Marysville, WA.
- Designated CITY staff will participate in all IJR/Stakeholder meetings throughout life of contract.
- Review and comment on all deliverables outlined in contract.

# **Work Element 1: Project Management**

## **Work Element 1.1 Implement Quality Control Program**

The CONSULTANT shall conduct quality control on PROJECT deliverables as outlined in HDR's internal Quality Assurance/Quality Control Plan

### **Work Element 1.2** Monthly Progress Reports and Billing

The CONSULTANT shall prepare monthly progress reports, in a form approved by the CITY, that outlines in written and graphical forms the various phases of the work, and the order of performance, in sufficient detail so that the progress of the work can be easily evaluated. These reports shall

- Highlight project milestones
- Target potential problem areas needing special attention or coordination prior to delays occurring and provide a proposal for addressing problem areas
- Outline activities planned for the next period
- Compare actual work progress with contractual obligations
- Show the current and cumulative financial status of the DCE project
- Show work complete (%) versus budget expended (%) for major tasks

Progress reports shall include current scheduling reports, indicating all progress to date and resources expended. Progress shall be monitored and reported in diagram and quantitative forms to present a clear, concise, and understandable picture of the project status. This update shall also include any changes in schedule, sequence, or resource loading. If any schedule delays have occurred, a plan for bringing the work back on schedule, and back on budget, shall be included.

Invoices shall be prepared by the CONSULTANT in a form and detail as approved by the CITY, and submitted on a monthly basis. These shall be supported by detailed record keeping closely tracking the project budget and expenditures.

### **Deliverables:**

 Monthly progress reports, incorporating project schedule revisions as appropriate (electronic copy)

Monthly earned value report?

Monthly invoices

## **Work Element 1.3 Monthly Client Progress Meetings**

The CONSULTANT and a representative from the CITY's Public Works Department shall meet on a twice monthly basis to review the progress of the project. Meetings shall be conducted on an informal basis and held at the CITY'S Marysville office, or a location chosen by the CITY. It is assumed that there shall be 10 monthly progress meetings. Progress meetings shall include in attendance two staff (on average) from the CONSULTANT at each meeting, in addition to representatives from subconsultant team members when appropriate.

### **Deliverables:**

- Ten meeting agendas
- Ten meeting notes

## **Work Element 1.4 Project Schedule**

The CONSULTANT shall create and maintain the project Critical Path Method (CPM) schedule covering the project through Contract Advertisement. The schedule shall include required CITY milestones. The draft schedule shall be submitted to the CITY within fifteen (15) working days of the NTP. The CONSULTANT shall monitor, modify, and update the project schedule on a monthly basis and/or as needed to determine potential impacts of proposed changes. The CONSULTANT shall adjust the duration, predecessor and successor relationships, constraints, linkages, deliverable descriptions and dates, reviews, percent completes, milestones, critical path, and task completion dates to reflect the current status of the project and any revisions made to the scope of work. The CONSULTANT shall provide the CITY with an electronic copy of the updated project progress schedule on a monthly basis. The CONSULTANT shall work with CITY to resolve any conflicts or discrepancies, if any, found in the submitted schedule.

### **Assumptions:**

- The project CPM schedule shall be developed using Primavera P3 e/c.
- The schedule shall cover the project through Contract Ad.
- The project CPM schedule will go through two reviews by the CITY.
- The project CPM schedule shall be "base-lined" after final CITY approval.

### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- First Draft project CPM schedule
- Second Draft project CPM schedule
- Baseline Project Schedule
- Monthly updates to the project schedule

## **Work Element 1.5 Weekly Project Coordination Meetings**

The CONSULTANT shall conduct weekly internal project coordination meetings with key staff/discipline leads and sub consultants to coordinate environmental, IJR, and preliminary design activities. It is assumed that there will be 30 meetings over a 10 month period (approximately 3 per month on average) lasting 2 hours each. Meetings shall include in attendance five staff (on average) from the CONSULTANT at each meeting, in addition to representatives from subconsultant team members when appropriate. Meetings will occur at CONSULTANTS Bellevue office location.

#### **Deliverables:**

None – internal project coordination

# Work Element 2: IJR Support Team Meetings & Report

# **Work Element 2.1 IJR Support Team Meetings**

Per section 550.04 (IJR Procedures) of the WSDOT Design Manual a support team will be established at the beginning of this study. Exact team members will be determined through early coordination with CITY staff. Support teams normally consist of CITY staff, WSDOT, FHWA, and neighboring jurisdictions. A support team kickoff meeting will be used to layout framework and guidelines for a "Methods and Assumptions Memo" and develop a "Purpose and Need Statement." The CONSULTANT shall prepare a draft meeting agenda and collaborate with the

CITY on the final agenda. The CONSULTANT shall provide an IJR facilitator (Project PM) and IJR recorder for all meetings. For budgeting purposes, additional CONSULTANT support staff – typically the senior traffic, civil design, or environmental engineer will attend IJR support team meetings. The CONSULTANT will be responsible for sending out meeting invitations, agendas, advance copies of meeting materials, and recording meeting minutes.

### **Assumptions:**

- Support Team meetings will be held at the CITY'S Office in Marysville. Meeting duration is assumed to typically be two (2) hours.
- Preparation of presentation material typically PowerPoint presentations is included in this task.
- The CITY will approve proposed meetings times and provide locations for meetings including conference rooms and all IT support needed to accommodate conference callin and Go-To Meetings.
- Previously delivered "I-5 to City Center Access Study Access Study" fulfills IJR Feasibility Study requirements for required IJR.
- A total of five (5) IJR Support Team meetings are assumed for budgeting purposes. Up to five (5) CONSULTANT staff will attend each support team meeting.

### **Deliverables:**

- Meeting minutes (electronic) for all support team meetings, produced no more than three (3) business days after date of meeting.
- IJR presentation material (typically PowerPoint presentation electronic) for all support team meetings.

# **Work Element 2.2 Methods and Assumptions Memo**

CONSULTANT shall develop a final IJR Methods and Assumptions Memo document per WSDOT requirements outlined in WSDOT Design Manual Chapter 550.

### **Assumptions:**

- Draft M&A memo prepared under previous study will be the basis of this update.
- Updates are required to reflect the City's selection of a "Preferred" option from Phase 1.

#### **Deliverables:**

Draft and Final IJR Methods and Assumptions Memo.

# **Work Element 2.3 Purpose and Need Statement**

### Objective

To develop a purpose and need statement to document the selection of the preferred alternative, be used for the Environmental process, and guide the design refinement of the Project.

### Approach

The CONSULTANT shall prepare a draft purpose and need statement for review and comment by the CITY. The purpose and need statement shall be brief and in accordance with FHWA's guidance on "Purpose and Need." Following CITY reviews and comments, the CONSULTANT shall revise the draft statement and prepare the final purpose and need statement for approval by the CITY, STATE, FHWA, and other involved stakeholders.

### **Assumptions:**

- Up to two draft purpose and need statements will be submitted for review and comment.
- One final purpose and need statement will be submitted for approval.
- Purpose and Need will be presented to IJR Support team for their "Concurrence" and endorsement of the I-5/SR 529 Interchange Improvement as the selected preferred alternative from the previous feasibility study.
- Purpose and Need Statement will also be used for Environmental process.

### **Deliverables:**

Final Purpose and Need Statement

## **Work Element 2.4 IJR Report**

CONSULTANT shall prepare IJR document. WSDOT Design Manual Chapter 550 will be the basis for this effort. Policy Points 1 through 8 will be addressed per exhibit 550-1. Individual draft chapters will be presented to the IJR Support Team as they are completed throughout the duration of the IJR process.

### **Assumptions:**

• Support Team members will have 15 working days to review individual draft IJR policy points throughout the duration of this effort.

- Support Team members will have 15 working days to review consolidated draft IJR and provide comments for final version.
- Draft Policy points will have been previously reviewed by support team throughout the
  duration of the IJR process and discussed at IJR support team meetings and therefore it is
  assumed that comments on final report will be minor in nature and primarily consist of
  formatting and editing.

### **Deliverables:**

Draft and Final IJR Document.

# **Work Element 3: Forecasting and Modeling Update**

### **Work Element 3.1** Travel Forecasting

CONSULTANT shall develop opening year and design year travel forecasts for the proposed interchange including both a build and no-build scenario.

### **Assumptions**

- There will be no additional traffic counts/ data collection required for this IJR study.
- There will be no full-scale traffic demand forecast work required for this IJR study.
- All forecasting work completed in the previous phase, "I-5 to City Center Access Study" shall be the basis for this IJR with minor updates, if required by IJR Support team/WSDOT/FHWA.
- Forecasts updates from previously forecasted 2035 to 2040 will be accomplished through a simple linear annual compound growth rate that needs to be agreed by IJR support team.
- A simple linear interpolation from existing traffic counts and previous 2035 traffic forecasts will be used develop the opening year (2017) forecasts.

### Deliverable:

• Forecasting results be presented in as part of Policy Point 3 in the IJR document.

# **Work Element 3.2 Operational Analysis Update**

Consultant will prepare an Operational Analysis per requirements of IJR Policy point 3.

- CONSULTANT shall conduct and complete the traffic operational analysis per the methods and assumptions outlined and agreed upon in the Methods and Assumptions Memo completed in Work Element 2.
- Freeway analysis including mainline segments, weaves, merges and diverges will be analyzed using HCM 2010.
- Consultant shall analyze freeway and ramps in the study area in order to develop reasonable comparisons for the following scenarios:
  - Existing AM Peak Hour
  - Existing PM Peak Hour
  - One 2017 AM Peak Hour No Build
  - o One 2017 PM Peak Hour No Build
  - One 2017 AM Peak Hour Build
  - o One 2017 PM Peak Hour Build
  - One 2040 AM Peak Hour No Build
  - One 2040 PM Peak Hour No Build
  - o One 2040 AM Peak hour Build
  - One 2040 PM Peak hour Build

### Assumptions:

- Operational analysis for both opening year and design year will be performed for freeway segments, weaves, merges and diverges.
- There will be no operational analysis for local streets or arterial intersections.

### **Deliverables:**

Traffic operational results will be presented in Policy Point 3 of IJR report.

# **Work Element 3.3 Safety Analysis**

Consultant shall prepare a Collision Analysis per requirements of IJR Policy point 3. Collision analysis will be conducted for both the existing and proposed (no build and build) conditions.

### **Assumptions:**

WSDOT TDO office will provide accident history for areas within WSDOT limited access. Areas outside of WSDOT limited access (arterial street system) will not be analyzed.

### **Deliverables:**

• Safety analysis results will be presented in Policy Point 3 of IJR report.

# **Work Element 4: Environmental Review and Documentation**

### Work Element 4.1 Environmental Kickoff Meeting

At this initial meeting, discuss the scope, schedule, and expectations for the environmental components of the project. It is an opportunity to identify key issues that could affect schedule or permitting. A walk through of the project limits and general reconnaissance by technical team members will be led by the project team leads after the kick-off meeting.

### Work Element 4.2 Environmental Baseline Fieldwork

Wetland Delineation - The CONSULTANT shall also review pertinent background information including: Soils Survey of Snohomish County Area, Soil Conservation Service, National Wetland Inventory Maps developed by the U.S. Fish and Wildlife Service, City of Marysville maps and pertinent code sections, and database information from Washington Department of Fish and Wildlife and the Washington Department of Natural Resources. The Consultant will delineate jurisdictional wetlands within the study area using the three parameter methods described in the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987), as updated by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (U.S. Army Corps of Engineers2010). This work study area covers the wetland delineation needed for all of the proposed interchange ramps. A separate field work effort will be required for the mitigation site selection process and will be covered in the mitigation task. Identified wetlands will be documented with appropriate data sheets and boundaries will be marked with visible plastic flagging for pickup by the survey team. Identified wetlands will be rated according to City and Ecology methods. Level of effort is anticipated to be 4 days of field work by 4 wetland biologists.

The CONSULTANT shall coordinate a field visit with a US Army Corps of Engineers (USACE) regulatory biologist for a formal wetland and waterbody jurisdictional determination. Assuming the Corps determines that the wetlands waterbodies fall under their authority, impacts such as fill or modification will require a Corps permit (JARPA) and compliance with the Endangered Species Act (Biological Assessment). A site visit with the Washington Department of Ecology wetlands biologist will also be held to confirm the documentation requirements for the 401 Water Quality Certification permit.

Fish, Wildlife, Vegetation Habitat Assessment – To support the NEPA documentation and the endangered species act evaluation, baseline assessment of fish and wildlife use of the corridor, and quality of the existing vegetation and habitat will be assessed by HDR scientists. The work will be conducted pursuant to the WSDOT EMP guidelines. Work will be done over 2 days by 2 qualified biologists.

### **Assumptions:**

- Right-of-Entry (ROE) will be handled by the City. No field work shall commence without ROE in hand.
- A City representative will attend the USACE site visit for the jurisdictional determination.

#### **Deliverables:**

Wetland Delineation and Rating Data Sheets, photos

# **Work Element 4.3 Agency Coordination**

This Work Element will be on-going through out the life of the project. During preliminary planning and design, coordination with the various stakeholders and permitting agencies will be crucial to determining early the exact permitting needs for the project. Based on our understanding of the project, the Consultant will:

Work with the City and the design team to develop a detailed project description to use in the initial discussion with the agencies.

Coordinate independent project kick-off and site visit meetings with WSDOT, staff from the USACE (including biologists from the Services), Washington Department of Fish and Wildlife, Washington Department of Ecology, City of Marysville staff, and Tribal representatives.

Organize follow up coordination meetings with each agency during the design development to communicate progress, changes, and schedule. Up to 3 follow coordination meetings with each agency are envisioned prior to submittal of the permit applications.

Prepare a comprehensive permit strategy and timeline based on the agency feedback.

### **Assumptions:**

- A City representative will attend all agency meetings.
- Meetings will occur at City Hall, on-site and up to 4 meetings may occur at the agency office.

#### **Deliverables:**

- Meeting Agendas
- Meeting Notes
- Permit Strategy Document

### Work Element 4.4 Wetland Delineation Report

To document the existing conditions of the project area including the wetlands, ditches, and floodplain of the proposed project ramps, a Wetland and Stream Delineation Report will be prepared. This document will include an assessment and location of the existing on-site wetlands and description of habitat structures and any surface water features. A wetland classification for the identified wetlands will be documented and the data sheets included. This report will be part of the JARPA packet to the USACE for the jurisdictional determination and the overall Corps USACE permit application.

### **Assumptions:**

- The wetland delineation report is for the USACE as part of the jurisdictional determination review and the JARPA permit application.
- One City, one WSDOT, and one USACE review and comment response cycle is anticipated.

### **Deliverables:**

Draft and Final Wetland Delineation Report (Electronic)

# **Work Element 4.5 Critical Area Report**

A critical areas study will be prepared to comply with the City of Marysville critical areas ordinance. The Wetland Delineation Report, Geotech Report, Water Quality Memo, and Biological Assessment will be used and built upon to prepare the critical area study. The critical area study will be developed to address the city standards and best available science (BAS) requirements. The report will summarize relevant background studies and mapping and will identify the general extent and location of project critical areas as defined by the City of

Marysville including floodplain, wetlands, streams, liquefaction zones, habitat areas and their buffers in the study area.

### **Assumptions:**

- The wetland delineation report and Biological Assessment will be used as the foundation of the critical area report.
- A general description of the mitigation site and the mitigation concept will be included.
- One City review and comment response cycle is anticipated

### **Deliverables:**

Draft and Final Wetland Delineation Report (Electronic)

# Work Element 4.6 Water Quality / Groundwater / Floodplains Technical Report

The CONSULTANT shall prepare a Drainage / Water Quality / Groundwater / Floodplains Technical Report. The CONSULTANT shall characterize water resources within the proposed project area in accordance with methodology outlined in the Local Agency Guidelines Manual. The Technical Report will include existing conditions, potential impacts of the alternatives and discuss mitigation measures for the following:

- FEMA 100-year floodplain encroachment/potential rise
- Surface water features and drainage basins.
- Groundwater protection zones.
- Surface water quality.

The potential impacts analysis will focus on the potential pollutants generated for the proposed project. Analysis for both short term (construction) and long-term will be completed.

### Assumptions:

- Groundwater, surface water and hydraulic modeling will be performed under a separate
   Work Element.
- One City and one WSDOT review and comment response cycle is anticipated

### **Deliverables:**

• Draft and Final Water Quality/Groundwater/Floodplain Technical Report (electronic)

# Work Element 4.7 Hazardous Materials Environmental Site Assessment (ESA)

A Hazardous Materials Environmental Site Assessment (ESA) will be completed for all project phases. The ESA will be performed in compliance with ASTM E1527-05 guidance for conducting Phase I studies, and in general conformance with requirements identified in the WSDOT Environmental Procedures Manual. The ESA report will be a technical memorandum and recommendations for further investigation or construction monitoring will be provided as part of the report.

### **Assumptions:**

- An Environmental Data Request (EDR) will be ordered and paid for by the City
- A site visit will be conducted but property owner interviews are not anticipated at this time.
- Access to affected properties will be arranged by the City.
- One City and one WSDOT review and comment response cycle is anticipated.

#### **Deliverables:**

Draft and Final Hazardous Materials Environmental Site Assessment (electronic)

# **Work Element 4.8 Cultural and Historic Resources Study**

APE Identification: CONSULTANT shall identify a project area that can be used as the Area of Potential Effects (APE) for consultation under Section 106 of the National Historic Preservation Act of 1966, as amended. This requires that SWCA conduct a check of records at the Department of Archaeology and Historic Preservation's (DAHP) Washington Information System for Architectural and Archaeological Records Data (WISAARD) to obtain previous project reports and information about recorded archaeological and built environment resources in the vicinity. Other background information will be collected from any recent geotechnical work for the project, ethnographic and historic accounts, previous regional cultural resource investigations, environmental documents, local historical societies and informants, the Snohomish County Assessor's Office, Washington State Department of Transportation (WSDOT), maps, and photographs. This information will be used to develop a project-specific strategy to identify historic properties.

The Tulalip Tribes, the Snoqualmie Indian Tribe, and the Snohomish Tribe of Indians, at a minimum, will be contacted about the project to solicit any additional concerns about heritage resources and to inform them when field investigations will take place. This communication is a technical inquiry and does not constitute any formal consultation that may be needed.

**Field Work:** SWCA archaeologists shall conduct a pedestrian survey of the project area and an approximately 40 acre mitigation site. Areas included in the recent Ebey Slough Bridge replacement project will not be resurveyed (AMEC 2008). It is likely that the project area and mitigation site (location is not known) are covered with fill and that targeted backhoe trenching may be more effective than hand-dug shovel probes in identifying areas where significant archaeological resources may be encountered. SWCA's geoarchaeologist, Brandy Rinck, will review previous geotechnical logs and monitor project geotechnical boring, if possible, to determine target areas. If monitoring is not possible, project geotechnical bore logs will be reviewed by the geoarchaeologist. Working with a backhoe operator, Ms. Rinck will direct and monitor test pit excavation to determine if there are buried surfaces or undisturbed sediments and to identify archaeological resources.

If the geoarchaeologist identifies buried surfaces or undisturbed sediments within one meter of the surface, a series of shovel probes will be dug to identify archaeological resources. Spoils from shovel probes will be screened through ¼ inch mesh. Any artifacts will be described, photographed, returned to the probe of origin, and reburied. Notes about content and sediments encountered will be kept on standard forms. UTM coordinates of all shovel probes will be recorded with a Trimble hand-held GPS unit. The survey will verify field conditions and identify, if present, archaeological deposits. An important part of the fieldwork will be to document historic and modern disturbance and to document the specific locations of any known or newly discovered cultural resources. Sites will be recorded on Washington State Archaeological Site Inventory Forms.

### **Assumptions:**

- Access to the project and mitigation area will be provided or arranged by the City of Marysville or HDR;
- A utilities locate shall be arranged by SWCA prior to archaeological field work, pursuant to recent changes in RCW 19.122 "Underground Utilities," which requires notification to the State Public Works Office at least three days but no more than 10 days before digging. Note that delays in utility flagging have the potential to delay the project;
- The 40 acres mitigation area is one location;
- A change in scope and budget will be necessary if the 40 acre mitigation area is in more than one location;
- The time allotted to field work may be reduced if the project area and mitigation site are covered with standing water or are otherwise inaccessible;
- Costs could be reduced if the County provided the backhoe and operator;

- Artifacts will not be collected;
- If at any time human remains are encountered, work will cease, and notification of affected parties will proceed as directed by RCW 27.44;
- No buildings or structures over 45 years old are present in the project or mitigation areas;
- No more than one archaeological site will be identified; a change in scope and budget will be necessary if more than one site is identified.

**Report Preparation:** The results of these investigations will be presented in a report suitable for submission by the client to WSDOT, DAHP, appropriate agencies, and other concerned parties. The report will present the results of background and field investigations, assessment of project effects, and will include recommendations for ways to complete evaluation of any sites encountered and to avoid or minimize damage to any historic properties encountered. If construction monitoring is recommended, a monitoring and discovery plan can be prepared under a separate scope.

### **Assumptions:**

Discovery of an archaeological site may require additional identification work beyond the
present scope to evaluate its significance and arrive at appropriate assessments of adverse
effects and treatment measures.

### **Deliverables:**

- Draft Report, 1 Word version
- Final Report, 2 hardcopies, 1 pdf version

### **Work Element 4.9 Noise Memorandum**

Because the proposed interchange is a "system to system" connection and involves no intersections, stop conditions, or sensitive receptors in the immediate vicinity, a qualitative noise assessment shall be proposed. The Consultant shall conduct a noise study to meet the requirements of the Federal Highway Administration (FHWA). A noise assessment and technical memorandum will be prepared to document existing and project-related noise levels in the study area.

The Consultant shall monitor noise levels at a maximum of 4 (4) locations to use in validation of the noise model and documentation of existing noise levels. In locations where other sources dominate, a description of the contributing sources will be provided. Photographs of microphone placement will be taken at each monitoring location.

The Consultant shall prepare a draft Noise Qualitative Memorandum to document existing conditions, current regulations, and explain why more detailed noise modeling is not warranted for this project

### **Assumptions:**

- One City and one WSDOT review and comment response cycle is anticipated.
- WSDOT will concur with this methodology. If they request noise modeling, it will require a scope and budget amendment.

#### **Deliverables:**

• Draft and Final Noise Qualitative Memorandum (electronic)

# **Work Element 4.10 Air Quality Qualitative Memorandum**

Because the proposed interchange is a "system to system" connection and involves no intersections, stop conditions, or sensitive receptors in the immediate vicinity, a qualitative air quality memorandum is proposed to document the existing conditions, regulations, and explain why the EPA Moves model is not warranted. No modeling is proposed since the area is considered to be in attainment.

### **Assumptions:**

- One City and one WSDOT review and comment response cycle is anticipated.
- WSDOT will concur with this methodology. If they request air quality modeling, it will require a scope and budget amendment.

### **Deliverables:**

Draft and Final Air Quality Qualitative Memorandum (electronic)

# Work Element 4.11 Endangered Species Act Compliance Biological Assessment (BA)

The purpose of the BA is to evaluate individual projects in terms of their potential impacts to any species listed or proposed for listing as threatened or endangered under Section 7 of the Endangered Species Act (ESA). It is currently anticipated that formal consultation will be required because the proposed work may have more than insignificant and discountable adverse impacts to listed species or critical habitat. The BA will be prepared by a WSDOT certified author and include detailed descriptions of all project activities, status and occurrence of listed species in project area, direct and indirect effects to all listed species and critical

habitat, and conservation measures. The BA will include an effects determination for each listed species and critical habitat. An analysis of Essential Fish Habitat (EFH) will be completed as part of the BA and will also include an effects determination. If the Services agree with the effects determination, they will write a Biological Opinion.

Federal agencies are obligated under Section 305(b)(2) of the Magnuson-Stevens Act (MSA) and its implementing regulations (50 CFR 600), to consult with NOAA Fisheries regarding actions that are authorized, funded, or undertaken by that agency, that may adversely affect Essential Fish Habitat (EFH). The MSA defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." Furthermore, NOAA Fisheries is required to provide the Federal agency with conservation recommendations that minimize the adverse effects of the project and conserve EFH (MSA 305(b)(4)(A)). This consultation is based, in part, on information provided by the Federal agency and descriptions of EFH for Pacific groundfish, coastal pelagic species, and Pacific salmon (Chinook, Coho and pink salmon) contained in the Fishery Management Plans produced by the Pacific Fisheries Management Council.

An EFH review and determination shall be completed as part of the BA process. The EFH review shall reference the effects discussed in the BA portion of the document and shall evaluate the project effects on spawning, breeding, feeding, growth and/or maturity for Chinook and Coho.

### **Assumptions:**

- One City, one WSDOT, and one Services review and comment response cycle is anticipated
- Formal consultation with the Services is anticipated for this project.

### **Deliverables:**

Draft and Final Biological Assessment (electronic)

# **Work Element 4.12 Visual Quality Technical Memorandum**

The purpose of this memorandum is to document the visual effects of the project. The CONSULTANT shall complete a visual impacts analysis addressing the potential visual impacts of the project. The analysis will be completed per the requirements of Chapter 459 of the EPM. This analysis will evaluate potential visual impacts, including aesthetics, light, glare, and night sky impacts. The analysis will document the baseline visual conditions and evaluate the potential effects of the proposed project on potential viewers of the project. The project team will choose viewpoints in consultation with City staff, existing maps, aerial photos, GIS data, and photos of the project areas. Up to 3 viewpoints will be used for the analysis that will represent the visual environment of the project area. A map will be included showing the viewpoints, view directions, and visible areas of these three viewpoints. A photo simulation will be

developed for each viewpoint to show how the constructed project may appear from the viewpoints.

### **Assumptions:**

- One City and concurrent WSDOT review and comment response cycle is anticipated
- The City will participate in the determination of appropriate viewpoints.
- Up to 3 viewpoints will be chosen.
- Visual simulations may be sketches, renderings, or photos.

### **Deliverables:**

• Draft and Final Visual Quality/Aesthetics Technical Report (electronic)

## **Work Element 4.13 NEPA Documentation and Approval**

The CONSULTANT shall complete appropriate NEPA documentation based on the studies and analysis provided above. The CONSULTANT shall complete NEPA environmental documentation in accordance with Chapter 24 of the LAG Manual and other appropriate WSDOT and/or FHWA guidance documents. The Local Agency Environmental Classification Summary form (ECS) is the assumed NEPA document for a Documented Categorical Exclusion (DCE). The CONSULTANT shall prepare the Environmental Classification Summary Form to satisfy NEPA requirements following the format and procedures specified in the WSDOT Environmental Procedures Manual and Local Agency Guidelines. The CONSULTANT shall coordinate with the WSDOT Highways and Local Programs Area Engineer during document preparation and review cycle. The CONSULTANT shall coordinate with WSDOT to address comments on the ECS. The CONSULTANT presently anticipates a NEPA DCE.

### Assumptions:

- NEPA documentation is assumed to be a DCE, and the preparation of an environmental assessment (EA) or environmental impact statement (EIS) is not included in this scope of work.
- Mapped floodplain or floodway areas occur in the project area.
- Document preparation will begin upon the selection of a preferred alternative.
- The project will be processed by WSDOT and FHWA as a DCE.
- The geotechnical report prepared by others will provide sufficient information to address project effects on soils and geology.

• CITY revisions and WSDOT comments on the ECS are minor edits and do not require additional technical analysis.

### **Deliverables:**

Draft and Final NEPA ECS (electronic)

## **Work Element 4.14 SEPA Documentation and Approval**

The Consultant shall prepare a draft and final SEPA checklist consistent with the requirements of WAC 197-11. All elements of the checklist will be based on the detail developed for the project at the footprint design level. It is assumed that the checklist will result in a Mitigated Determination of Non Significance. Supporting data will be gathered to prepare the checklist using the format provided by the City of Marysville for review, distribution and comment. Upon receipt of consolidated comments, the Consultant will prepare a final Checklist by incorporating the revisions, recommendations, and directions from the City. The City will prepare the public notice and required distribution lists. Any site posting responsibility will be handled by the City. The Consultant will provide comment response assistance for up to 6 general comments. Although a large volume of comments is not anticipated, additional budget may be required to support an extensive response to comment effort.

### Assumptions:

- CITY revisions and comments on the SEPA checklist will be minor and do not require additional technical analysis.
- The SEPA threshold determination is anticipated to be a Mitigated Determination of Non-Significance (MDNS).
- This project will have no relocations of small businesses or residential housing.
- A SEPA EIS is not included in this scope of work.
- The City of Marysville is responsible for issuing the SEPA determination and handling public notification.

### **Deliverables:**

Draft and Final SEPA Checklist (electronic)

# Work Element 4.15 Alternatives Assessment for USACE Section 404b(1)

As required for the USACE permit, a Section 404 b(1) Alternatives Evaluation is required. An increased level of effort is required for coordination and design activities to support

preparation of permit applications triggering an Individual Permit. This includes more analysis of the 'practicable alternatives' to demonstrate compliance with the USACE Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material (CFR 40 Part 230 Section 404(b)(1)). Subpart (a) of this Guideline stipulates the following:

"...with minor exception, no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."

For the purpose of this requirement, practicable alternatives include, but are not limited to:

- Activities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters;
- Discharges of dredged or fill material at other locations in water of the United States or ocean waters.

The CONSULTANT shall work with the City to develop the Practicable Alternatives to demonstrate compliance with Section 404(b)(1). It is assumed that the alternatives analysis prepared for NEPA will provide the information necessary for evaluation under these Guidelines.

#### Assumptions:

- Alternatives descriptions and screening criteria from the IJR will be used to support the 404b(1) documentation.
- One City and one USACE round of review and comment on the document are anticipated.

#### **Deliverables:**

Draft and Final USACE Section 404 b(1) Alternative Analysis Report (electronic)

## **Work Element 4.16 Long Lead Permit Preparation**

The Joint Aquatic Resource Protection Application (JARPA) shall be completed by the Consultant for review and signature by the City. The Consultant will prepare supporting project description materials, including alternatives analysis and compliance with permit justification criteria. The JARPA prepared with this Work Element order will be used to apply only for the USACE and Ecology at this time. Specific graphics are required to support the JARPA packet. The Consultant will utilize a combination of GIS and CAD to prepare up to 20 figures and graphics.

#### **Assumptions:**

Additional local and state permit preparation will be required in future phases.

#### **Deliverables:**

Draft and Final JARPA

## **Work Element 4.17 Wetland Mitigation**

The project is located in freshwater emergent and freshwater forested wetlands, and wetlands associated with tidally-influenced Ebey Slough. Fill within the wetlands will require mitigation per the local, state and federal laws. The CONSULTANT shall work with the CITY and the sponsors of the Qwuloolt Estuary Restoration Project (Bank) to use the proposed bank as mitigation to support the permitting process.

The CONSULTANT shall meet with the Bank sponsors and the resource agencies to discuss the use of credits developed by the Bank as compensation for wetland impacts associated with this project.

#### **Assumptions:**

- The proposed Mitigation Bank has appropriate mitigation for estuarine impacts.
- If the use of the Mitigation Bank will not be allowed as compensation for impacts, additional scope to develop a mitigation package will be required and may also result in a change in the project schedule.
- The CONSULTANT will attend up to four meetings with the Bank sponsors.
- The CONSULTANT will attend up to three meetings with the resource agencies, including the Interagency Review Team (IRT).
- The CITY will organize and facilitate the meetings with the Bank sponsors and resource agencies.
- The preparation of documents for use of Bank credits are not included as part of this scope of services.

#### **Deliverables:**

Meeting minutes from sponsor and resource agency meetings

## **Work Element 4.18 – Floodplain Mitigation**

The project is located in a FEMA mapped 100-year floodplain, Zone AE and Zone X, per the effective Flood Insurance Rate Map (FIRM). Zone AE has established Base Flood Elevations established for those areas and mandatory floodplain management standards apply.

### 4.18.1 Hydrologic Analysis

The CONSULTANT will review readily available gage data, the current Flood Insurance Study (FIS), and other sources provided by the CITY. The hydrologic analysis run for the Work Element will use the 1 percent and 0.2 percent chance flood flows from the current FIS.

#### **Assumptions:**

- The Consultant will review existing and publically available flow data.
- The flows used for the hydraulic analysis will be from the current FIS. The CONSULTANT is not proposing changes to the hydrology used in the effective FIS.
- A hydrologic model of the basin will not be created.
- It is assumed that no work will occur in the delineated floodways of Steamboat or Ebey Slough, therefore a Conditional Letter of Map Revision (CLOMR) will not be required.
- The CONSULTANT will work with the CITY on the required local permit for work within the floodway fringe and no coordination with FEMA will be required.

#### **Deliverables:**

• Flow events used for the hydraulic analysis. This will be incorporated into a table included in the Hydrologic and Hydraulic Analysis Report.

## 4.18.2 Hydraulic Analysis

The CONSULTANT will create an existing conditions and a proposed conditions hydraulic model using HEC-RAS. The CONSULTANT will use FEMA's effective model as the basis for the development of the existing and proposed conditions model. The model will start at cross section C on Steamboat Slough (from the FIRM) and cross section B on Ebey Slough (from the FIRM), and end at cross section E on Steamboat Slough and cross section D on Ebey Slough (from the FIRM).

#### **Assumptions:**

• The effective hydraulic model was developed in HEC-2 and the FEMA HEC-2 model is available electronically. If the model is not available electronically additional time will be required to manually create the model from a hard copy.

- The FEMA model has cross-sections within the sloughs which will be used in the project's hydraulic model.
- Any additional survey used in this analysis will be from the topographic survey generated from this project. Modeling will not begin until the survey is complete and the preferred project alignment identified.
- The CONSULTANT will support the CITY in obtaining the electronic model. The CITY will pay to obtain the FEMA hydraulic model.
- The CITY will provide as-built drawings for any new structures constructed by the CITY since the effective FIRM was published within the project limits.
- The CONSULTANT will contact WSDOT and Snohomish County to obtain as-built drawings for new structures constructed since the effective FIRM was published within the project limits.
- It is assumed that no work will occur in the delineated floodways of Steamboat or Ebey Slough, therefore a Conditional Letter of Map Revision (CLOMR) will not be required.
- The extents of the model will be reduced to approximately 0.5 miles of channel along Steamboat Slough and 0.7 miles of channel along Ebey Slough. A new HEC-RAS model of the project area will be created.
- It is assumed that sediment transport will not affect the BFE.
- Only the preferred alignments for the roadway and ramps will be modeled.
- One site visit will be conducted.
- Up to two (2) 2-hour meetings will occur between the CITY and the CONSULTANT. Two consultant team members will attend.

#### **Deliverables:**

• Electronic files of the HEC-RAS models

## 4.18.3 Hydrologic and Hydraulic Analysis Report

The CONSULTANT will document the results of the hydrologic analysis and hydraulic modeling in a report with detailed conclusions and recommendations.

#### **Assumptions:**

• The body of the report shall be up to 30 pages in length.

- The report shall include a discussion of the existing conditions, the available data, the analysis performed, the proposed scenario modeled, the extent of the model, and conclusions.
- The CITY shall provide one set of consolidated comments on the Draft Report.
- This Report can be used to obtain the local floodplain permit.

#### Deliverables:

- Electronic copy of a Draft Hydrologic and Hydraulic Report
- Hard and electronic copy of a Final Hydrologic and Hydraulic Report

## **Work Element 5: Survey**

## **Work Element 5.1 Base Mapping**

The CONSULTANT shall collect existing data pertinent to the project that is available from the CITY, other agencies, franchise utilities, and other sources. The data shall include right-of-way information, topographic surveys, existing & planned utility locations, proposed private development plans, and previous reports and documents pertaining to the project. A copy of the WSDOT's alignment survey will be obtained by the CONSULTANT, indicating existing right-of-way and property lines, together with existing horizontal and vertical survey control.

An existing conditions survey shall be prepared by a professional land surveyor licensed in the State of Washington with line work screened back or drawn in light pen weight. Base mapping shall include topographic features and elevations in the work vicinity to a level of detail necessary for a proper design, underground and overhead facilities in addition to the surface features and above ground items, as well as identifying items in the attached Design Guidelines. Base mapping shall be tied to existing monument control as identified in the WSDOT's alignment survey and defined on the plans. Plan work shall use NAVD 1988 vertical datum and NAD 83 NS RS 2007 basis of bearings.

Survey cross-sections at a 50 foot interval with ground shot intervals spaced a maximum of 10-feet' apart in areas where structures are expected. Existing channelization shall be shown 150-feet beyond project limits.

The CITY will be responsible for obtaining right-of-entry permits to enter properties adjacent to the project.

Key project personnel shall visit the project site and familiarize themselves with the site conditions and data collected for the project. Photographs should be obtained for design references. The base mapping shall be field checked by the CONSULTANT to ensure complete

and accurate representation of existing conditions. The CONSULTANT shall also field check the design to assure the design fits the conditions in the field. A field walk through with the CITY and the Consultant shall be scheduled following the submission of the conceptual design plans.

#### **Deliverables:**

- Topographic Survey Project Basemap (electronic copy).
- Inroads Surfaces (DTM Files) (electronic copy)
- Inroads Survey Books (FWD Files) (electronic copy)
- Copy of field survey books (hard copy)

## **Work Element 5.2 Legal Descriptions**

The CONSULTANT shall provide legal descriptions and exhibits to support the right-of-way process for the project. It is estimated that up to 4 parcels will require right-of-way takes and up to 4 parcels will be required.

#### **Assumption(s)**:

- Legal description and exhibit revisions will be required for one parcel for right-of-way takes as a result of property negotiations.
- Legal description and exhibit revisions will be required for one parcel for easements as a result
  of property negotiations.

#### Deliverable(s):

Final draft and Final right-of-way legal descriptions in hard copy and electronic format per WSDOT guidelines

## **Work Element 6: Geotechnical Investigation and Reports**

The purpose of this Work Element is to provide geotechnical engineering, design, and construction recommendations to approximately the 30 percent level for the proposed NB and SB structures and embankments. Geotechnical engineering recommendations will consider the cost of structure, embankment fill, and retained fill (with ground improvement and/or Geofoam) with the cost of mitigation and permitting impacts.

Based on nearby borings the project site is underlain by over 200 feet of interbedded layers of very loose to medium dense silt and silty sand. Explorations will be advanced to determine subsurface soil conditions and evaluate deep foundation options, embankment stability, embankment settlement, earthquake-induced hazards, and embankment construction adjacent to the existing roadway.

#### Work Element 6.1 – Data Collection & Review

The approach to understanding the geology, subsurface soils, and depth to glacially over-ridden soils will be to first collect and review available significant available geologic and geotechnical data for the site. The CONSULTANT will review the following data:

- WSDOT reports for the I-5 bridge
- USGS Geologic maps and reports

#### **Assumptions**

None

#### **Deliverables**

None

## **Work Element 6.2 – Field Investigation**

The CONSULTANT will conduct a field reconnaissance to evaluate boring layout explorations for the preferred alternative. We will perform 4 borings to evaluate the subsurface conditions in support of the 30 percent level civil and structural engineering effort. The primary focus of the field investigations will be to obtain representative soil samples and data that will allow characterization of stratigraphy, soil strength, and compressibility.

For the SB SR 529 to SB I-5 portion of the alignment, the CONSULTANT will drill 3 borings. For the NB I-5 to NB SR 529 portion of the alignment, the CONSULTANT will drill 1 boring. The borings will be drilled with a truck-mounted drill rig using mud rotary techniques to depths between 200 and 250 feet. Thinwalled undisturbed soil samples will be obtained at representative depths.

The CONSULTANT will prepare field logs of the borings, collect representative samples, and record SPT blow counts. We estimate that at least 20 thin-walled tube samples (approximately 5 tubes per boring) will be obtained for laboratory testing. Consolidation testing will be performed on representative thin-walled tube samples.

#### **Assumptions:**

- Due to difficult and costly access, subsurface explorations will not be performed within the proposed NB ramp wetlands area.
- The CONSULTANT will not need to pay prevailing wages to subcontractors.
- The borehole locations will be surveyed by others.
- The borings will be drilled during normal daytime workday hours. A day of drilling will include 12 hours of combined drilling/observation/travel time. No work hour restrictions will be imposed for field explorations.

- Relatively disturbed subsurface soil samples will be collected from the borings using the Standard Penetration Test (SPT) at intervals of 2.5 feet in the upper 20 feet and at intervals of 5 feet below 20 feet (if applicable).
- The boreholes will be backfilled to the surface.
- Site restoration will be completed by others.
- All drill locations are accessible with a truck-mounted drill rig.
- No contamination is suspected along the alignment; therefore, no steam cleaning of drilling/sampling equipment will be done. In addition, no environmental samples will be taken.
- Investigation derived waste (IDW) that includes soil cuttings and drilling mud will be removed from the site and disposed of as part of this contract (only non-contaminated IDW).
- The CITY will obtain permission to access the proposed exploration locations.
- The traffic control services are not required.
- All permits will be prepared by others. All permit fees will be paid by others.
- No permits are required for drilling in the gravel staging areas on the southwest side of I-5 (between NB and SB SR 529).
- Additional explorations for the NB and SB alignments will be required for final design.

#### **Deliverables:**

Results of the boring logs will be included in the Geotechnical Data and Engineering Report

## **Work Element 6.3 – Laboratory Testing**

The CONSULTANT will perform index and consolidation testing to determine soil classification, index properties, and estimates of soil compressibility and rate of consolidation. Eight undisturbed samples will be tested to estimate the soil compressibility and rate of consolidation.

#### **Assumptions**

None

#### **Deliverables**

• Results of the testing will be included in the Geotechnical Data and Engineering Report.

## **Work Element 6.4 – Geotechnical Analysis**

Analysis and recommendations will be developed for earthquake-induced hazards, deep foundation options, embankment settlement, embankment stability and ground improvement, and embankment construction adjacent to the existing roadway.

#### **Work Element 6.4.1 Subsurface Profiles**

The CONSULTANT will develop 1 subsurface profile using the results of the field investigation program. The subsurface profiles will be used for engineering evaluations that will be performed in Work Element 6.4.

#### **Assumptions**

None

#### **Deliverables**

Results of the analyses will be included in the Geotechnical Data and Engineering Report.

#### Work Element 6.4.2 Earthquake-induced hazards

The CONSULTANT would use the borings and CPTs performed at the site to estimate liquefaction potential for the AASHTO design ground motion. Post-liquefaction settlement will be based on the empirical liquefaction methods and post-liquefaction settlement correlations.

#### **Assumptions**

None

#### **Deliverables**

Results of the analyses will be included in the Geotechnical Data and Engineering Report.

#### **Work Element 6.4.3 Axial Resistance of Piles**

Based on our experience, driven pile foundations are likely the preferred foundation type for the proposed structures. Using LRFD methodologies (WSDOT GDM and AASHTO LRFD), the CONSULTANT will evaluate axial resistance for pile foundations for the service, strength, and extreme limit state for up to four pile diameters.

Axial pile resistance analyses will be performed by the CONSULTANT to determine the compressive and uplift resistance of the up to 3 combinations of steel pipe pile foundation types and diameters. The analyses will assume static, seismic, and post-seismic conditions. The CONSULTANT will evaluate static and post-liquefaction downdrag loads on the pile foundations. The results of the analyses will be presented as plots of axial pile resistance versus depth for the load cases described above.

#### **Assumptions**

None

#### **Deliverables**

Results of the analyses will be included in the Geotechnical Data and Engineering Report.

#### **Work Element 6.4.4 Lateral Pile Resistance Parameters**

The CONSULTANT will develop the required soil parameters for input into the lateral resistance analysis that will be performed by others.

#### **Assumptions**

• The lateral resistance analysis will be performed by the structural engineer.

#### **Deliverables**

Results of the analyses will be included in the Geotechnical Data and Engineering Report.

#### **Work Element 6.4.5 Embankment Settlement**

The CONSULTANT will evaluate static settlement of the embankments. Considering the site is underlain by sand and silt, elastic settlements will be estimated. The consolidation test results, that will be performed using representative samples, will be used to estimate long term settlement. If settlements are excessive, the CONSULTANT shall evaluate the need for surcharges and/or the effects of including ground improvement (see below).

#### **Assumptions**

None

#### **Deliverables**

• Results of the analyses will be included in the Geotechnical Data and Engineering Report.

#### **Work Element 6.4.6 Surcharge Loading**

The CONSULTANT will evaluate the need for a preload surcharge to reduce settlement and/or enhance foundation soil shear strengths for roadway embankment stability. The CONSULTANT will evaluate the required height and extent and estimated duration of the preload surcharge.

#### **Assumptions**

None

#### **Deliverables**

Results of the analyses will be included in the Geotechnical Data and Engineering Report.

# Work Element 6.4.7 Embankment Stability, Ground Improvement, and Lightweight Fill

The CONSULTANT will evaluate the transverse and longitudinal slope stability of the proposed roadway embankments/retained fills for static and dynamic conditions. Where needed for stability, the

CONSULTANT will determine the type and limits (lateral and vertical) of ground improvement. To reduce settlement and improve embankment stability, ground improvement will include consideration of appropriate types of lightweight fill.

#### **Assumptions**

• A CADD file that includes topographic contours of the existing conditions and the proposed alignment will be provided by others. Cross-sections that contain the existing conditions and the proposed alignment will be provided by others.

#### **Deliverables**

Results of the analyses will be included in the Geotechnical Data and Engineering Report.

#### **Work Element 6.4.8 Construction Considerations**

The CONSULTANT will address construction considerations consistent with the 30 percent design level. Issues that will be considered include: expected problems associated with installing ground improvement (if required) adjacent to the existing I-5 embankment, risk associated with the selected ground improvement technique(s), construction of any preloads adjacent to the existing I-5, schedule risks associated with protracted surcharge periods, need for and design of work trestles, risks/problems associated with steel-pipe pile installations.

## Work Element 6.5 Participation in Design Meetings

The CONSULTANT will allocate time for up to 5 design meetings to be held in Bellevue, Washington. The purpose of these meetings would be to discuss feasibility of the foundations and embankments for the proposed alternatives.

#### **Assumptions**

- Each meeting will last about 4 hours, including travel time.
- The Geotechnical project manager and a project engineer will attend the meetings.

## Work Element 6.6 Geotechnical Data and Engineering Report

The CONSULTANT will prepare a draft and final Preliminary Engineering Geotechnical Data and Engineering Report that presents the results of Work Elements 6.1 through 6.5. The report would contain subsurface data obtained during the course of the project including logs of all borings, results of the laboratory testing, representative subsurface profile, and geotechnical analysis results and recommendations.

#### **Deliverables**

Preliminary Engineering Geotechnical Data and Engineering Reports (2 hard copies and 1 electronic copy)

## **Work Element 7: Engineering**

### **Work Element 7.1** Alternative Refinement

#### Objective

To refine the preferred alternative balancing environmental & ROW impacts with overall project cost to develop a refined alternative to advance into Environmental and Preliminary Engineering Phase.

#### Approach

The CONSULTANT shall prepare conceptual drawings for up to two geometric alignments per ramp and three (3) construction type (i.e., embankment fill, walls, and/or elevated structure) alternatives. Following review and discussion with the CITY, the CONSULTANT shall refine the alternatives as necessary. The CONSULTANT shall present conceptual options to IJR support team for their comments and recommendations.

#### **Assumptions:**

- Up to two meetings with the CITY and/or IJR support team may be required to refine options.
- There will be one draft Preliminary Alternatives Screening Memorandum submitted for review and comment.
- There will be one final Preliminary Alternatives Screening Memorandum submitted for approval.

#### **Deliverables:**

- Three draft conceptual construction types geometric alternative drawings
- Two conceptual geometric alternative drawings
- One preliminary alternatives screening matrix, populated with screening data.
- One draft Preliminary Alternatives Screening Memorandum
- One final Preliminary Alternatives Screening Memorandum

## **Work Element 7.2 Conceptual Engineering**

## **Work Element 7.2.1** Horizontal Alignment and Vertical Profile

The CONSULTANT shall plot the existing construction / right of way alignment in a plan series. For each alternative, the proposed right-of-way limits, alignment plan and profile shall be CAD drafted on plan sheets. For the preferred alternative more detailed calculations shall be performed, (including cross-sections at every 50 feet, typical sections, and approximate right-of-way easements and takes) to further evaluate the impacts and support the construction cost estimate. The existing and proposed right-of-way limits shall be plotted based on Work Element XX (Survey). For the build alternatives, the proposed profile shall be tested using the current design template to determine cut and fill limits and their location with respect to the right-of-way limits. Minor construction alignment deviations shall be evaluated by the CONSULTANT to reduce impacts on flood plains, wetlands, Section 106 facilities, hazardous waste, displacements, utilities, and threatened and endangered species habitats.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

Alignment Plan and Profile Sheets (1:200 scale plots)

### **Work Element 7.2.2 Determine Earthwork Quantities**

After conceptual design profiles and roadway sections have been established, project earthwork quantities for the concept-level alternatives in 50 foot (max.) sections for the project shall be determined.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

Earthwork Quantities

# Work Element 7.2.3 Determine Environmental Impact & Mitigation Requirements

After the conceptual footprints for each preliminary alternative are determine the CONSULTANT shall evaluate the environmental impacts and the estimated mitigation requirements for each.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Plot showing impacts
- Calculations for mitigation

## Work Element 7.2.4 Prepare Conceptual Interchanges/ Intersections Alternatives

The CONSULTANT shall develop proposed and existing interchanges/intersections to a conceptual level (5% design) for two (2) geometric alternatives.

#### **Assumptions:**

Up to two geometric alternatives will be developed.

#### **Deliverables:**

None – preferred alignment will be advanced to 30% design

### **Work Element 7.2.5 Conceptual Structural Analysis**

The CONSULTANT shall conduct an analysis of alternatives for new bridges and or walls on the project, taking into consideration cost, impacts to wetlands and floodplains and construction feasibility. The purpose of the analyses shall be to support the screening process and shall be of conceptual nature only, using basic geotechnical engineering and environmental parameters, and developed to a level sufficient to enable preliminary costs to be determined. The concepts to be considered include and are limited to new bridges and fill wall structures with ground improvements. The STATE will provide as-built plans and repair and maintenance for the existing bridges with the project may tie into. A meeting with the STATE's Bridge and Structures Office shall be held in Olympia to discuss the structural aspects of the project and to agree on the assumed structure types. The CONSULTANT shall prepare for, participate in, and document the meeting.

The description of proposed bridges shall include structural type the overall width, lane, shoulder, bridge barrier and rail requirements, the vertical profile and the horizontal alignment.

#### **Assumptions:**

- STATE will provide the as-built bridge plans and other existing data pertinent to the Project.
- The Structures work elements involve up to four (4) bridge structures and approximately 5,000 linear feet of retaining walls.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Evaluation of bridges and retaining walls shall be incorporated in the screening matrix to determine the preferred alternative for each location.
- Bridge Office Meeting Notes
- Preliminary Plan Drawings

## **Work Element 7.3 Preliminary Engineering**

#### **Purpose**

The purpose of this Work Element is to provide engineering, design, and technical support to approximately the 30 percent level in support of the determination of environmental documentation requirements and the Design Approval Package. This will serve as the basis for the Design Documentation Package to be accomplished in a later phase.

#### **Work Element 7.3.1 Design Criteria & WSDOT Design Matrix**

#### Objective

Identify and document necessary design level and design criteria for development of the project.

#### Approach

The CONSULTANT shall review and confirm the roadway and bridge design criteria to be used for the project and establish the roadway geometry, structural, material and geotechnical design criteria to be used for the bridges and retaining walls on the project. The structural criteria will be AASHTO and STATE standards. CONSULTANT will identify all WSDOT Design Level Matrix criteria requirements for project.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

Design Criteria Technical Memorandum (Draft and Final)

#### **Work Element 7.3.2** Horizontal Alignment and Vertical Profile

The CONSULTANT shall refine the preferred alternative horizontal alignment and vertical profile and prepare plans and typical sections consistent with STATE design standards. Plan sheets shall be prepared to show the horizontal alignments at 1'' = 100' scale. Access control and anticipated right-of-way plan will be illustrated on the 1'' = 100' drawings. Profile sheets shall be prepared to show the vertical alignment (with super elevation diagrams) at 1'' = 100' scale horizontal and 1'' = 5' vertical.

#### **Assumptions:**

- Cross-sections will be prepared every 50 feet
- Typical Roadway Sections will be prepared as part of this activity
- Cut and fill lines will be displayed on the plans

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Final design horizontal alignment and vertical profile plans for the preferred alternative to a 30% design level
- Typical Roadway Sections to a 30% design level

#### **Work Element 7.3.3 Determine Preliminary Grading Concept**

The CONSULTANT shall determine the preliminary grading concept with cut and fill limits in support of Work Element 7.0.

#### **Assumptions:**

Preliminary Grading (Concept) Plans will be prepared at 1" = 100'.

#### Deliverables:

One (1) electronic and one (1) hardcopy of the following:

Conceptual Preliminary Grading Plan with cut and fill limits identified

### **Work Element 7.3.4 WSDOT Channelization / Interchange Plans**

The CONSULTANT shall prepare WSDOT Channelization Plan and Preliminary Interchange Plan for Approval to a 30% design level in accordance with STATE standards and procedures.

#### **Assumptions:**

- The Preliminary Channelization/Interchange Plans will be prepared at 1" = 100'.
- The Preliminary Channelization/Interchange Plans shall be based on and contain the following items:

0	<u>GENERAL</u>	<u>REQUIREMENTS</u>

☐ Use latest version of the Manual on Uniform Traffic Control Devices					
(MUTCD),	WSDOT Design Manual, and AASHTO				
☐ Show 300	feet of existing highway beyond the proposed changes				

	☐ Plan prepared in accordance with Plans Preparation Manual
	☐ Have preliminary deviations/EUs, if applicable
0	DESIGN DATA BOX
	☐ Highway Design Class (Modified: MDL1-14; Full: Principal Arterial, Minor Arterial or Collector)
	☐ City/County Design Classification for crossroads
	☐ ADT
	☐ Design Vehicle
	☐ Posted Speed and Design Speed
0	<u>PLAN SHEET</u>
	☐ Project Title, State Route number, SR Milepost in title block
	☐ Township, Range, Section, North Arrow, scale bar, legend, county
	☐ Street and Highway names
	Existing topographic features (edge of pavements, utility poles, fire hydrants, retaining walls, etc.)
	Construction centerline, bearing, stationing or milepost
	Station, or milepost, and equations at centerline intersection of intersecting roads and approaches
	☐ Angle of intersection
	☐ Curve data for each curve (curve radius, curve and tangent lengths, delta angle, PC, PI, PT and superelevation)
	☐ Widths of lanes, turn lanes, shoulders, medians, curb & gutter, bike lanes, sidewalks, and bus pullouts if applicable
	☐ Begin/end stations of channelization storage
	☐ Taper rates for lane transitions
	☐ Right turn corner radius for intersecting roadways and approaches
The CONSULTA	NT will distribute material for review and approval directly to WSDOT.
Deliverables:	
One (1) electr	onic and one (1) hardcopy of the following:

• 30% Preliminary Interchange/Channelization Plans

## Work Element 7.3.5 - Justification, Variance Inventory Forms and Draft Deviations

The CONSULTANT shall prepare and use Project Justification and Design Variance Inventory Forms per WSDOT procedures. The CONSULTANT shall identify and list up to three (3) design deviations for the preferred alternative. The CONSULTANT shall attach a brief (up to 5 pages) summary report to be submitted with the Design Variance Inventory.

#### **Assumptions:**

- A maximum of three (3) deviations shall be prepared.
- One review cycle of deviations

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Design Variance Inventory Forms and Summary Report
- Up to five (5) Draft Deviations for Submittal

#### Work Element 7.3.6 PRELIMINARY HYDRAULICS

#### **Work Element 7.3.6.1** Preliminary Drainage Assessment

The CONSULTANT shall review and document the existing drainage conditions. This work will include:

- Project Design Criteria Worksheets (Item 1)
- Review of area basin plans, master drainage reports, as-built plans, existing and forecast
  ADTs, hydraulic reports, topographic surveys, environmental reports, geotechnical reports,
  and other documentation that describes the existing on-site and adjacent off-site drainage
  features/systems in the project area. (Item 2)
- A visit to the site to confirm that the documentation is accurate relative to field conditions.
- Document the existing Threshold Discharge Areas (TDA) based on the investigation described in items 1 & 2.

The CONSULTANT shall prepare a Hydraulic Assessment that contains the following:

- Summary of the research described in items 1 & 2 above.
- TDA descriptions and base map delineating the TDA's

- Hydraulic design criteria
- Identification of significant drainage features such as flow control and water quality facilities, culverts, channels, storm drains, wetlands, and streams.
- A preliminary hydraulic analysis and 5% design level

#### **Assumptions:**

 The STATE will supply all available reports, maintenance information, local flooding information, as-built drawings, survey information, and any additional information available to support the analysis of the existing drainage conditions.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Hydraulic assessment report
- 5% design level hydraulic design to support up to three (3) alternatives

## Work Element 7.3.6.2 Drainage Assessment of the Selected Alternative (30% Design)

The CONSULTANT will advance the analysis started in Work Element 7.3.6.1 to support the design of the preferred alternative. This analysis will include:

- The Hydraulic Assessment from Work Element 7.3.6.1.
- Identify major hydraulic design elements to support the 30% Design of the preferred alternative.
- Provide a rough-cut analysis of the major design elements.
- Type, size, and location of the major design elements (i.e., BMP's)
- Provide a conceptual drawing that shows the major hydraulic elements.
- List known hydraulic constraints/risks

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Drainage assessment report
- 30% hydraulics design for the preferred alternative

# Work Element 7.3.7 WSDOT/FHWA Type, Size, and Location (TS&L) Structural Report

The CONSULTANT shall study the structure requirements for the PROJECT. The structural study and report shall document how the proposed structure type, size, and location were determined. The following considerations shall be addressed in the study report:

- Aesthetics
- Cost Estimates
- Geometric Constraints
- Project Staging and Stage Construction Requirements
- Traffic Impact and Public Access During Construction
- Foundations
- Feasibility of Construction
- Structural Constraints
- Maintenance

The Structure TS&L Study Report text shall describe how each of these factors leads to the preferred alternative and show how each constraint eliminated or supported the alternative. The TS&L Study will require preliminary structural engineering design to determine required types and sizes of structural members and estimated costs of the alternatives. The structures anticipated to be required for each alternative include..., permanent retaining walls. The CONSULTANT shall develop preliminary plan drawings that clearly describe the structural elements of the alternatives examined in the TS&L Study.

The CONSULTANT shall move forward with the Preferred Alternative preliminary engineering design for the structures required for the Phase 1 project. Preliminary structural engineering calculations, preliminary plan drawings, and preliminary cost estimate are required to be developed for the Preferred Alternative. The preliminary plan drawings shall be developed to clearly describe the structures and shall include the plan view, elevations, and typical section views for the structural elements that are a part of the Preferred Alternative.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

- Preliminary design level TS&L study report covering each of the alternatives to be evaluated
- Preliminary TS&L report and plans for the refined alternative

#### **Work Element 7.3.8 Structures Plans**

The CONSULTANT shall develop structure plans to a 30% design level per WSDOT design delivery matrix. Structures drawings will include the following:

Bridge Sheets (for each bridge structure):

- Bridge Layout (Plan & Elevation)
- Construction sequence
- Foundation Layout
- Abutment Plan and Elevations
- Intermediate Pier Plan and Elevations (if applicable)
- Typical Bridge Section
- Temporary Structure Plan and Elevations (if applicable)

#### **Retaining Wall Sheets:**

Plan, Profile, and Typical Section for each wall

#### **Deliverables**

 30% Structures Plans will be included as part of Preliminary Design and Estimate Package.

### **Work Element 7.3.9 Illumination, Signing, & ITS Plans**

The CONSULTANT shall develop preliminary illumination, Signing, & ITS plans to a 30% design level per WSDOT design delivery matrix. This effort will identify project specific issues and needs to define the luminaire mounting height, pole spacing, the type and size of the fixture and how to modify and supplement the existing illumination systems within the project area.

#### **Deliverables:**

• 30% Illumination, Signing, & ITS plans will be included as part of Preliminary Design and Estimate Package.

#### **Work Element 7.3.10 Utility Plans**

#### **Objectives**

To identify and locate all existing utilities in the project area, determine probable project impacts to existing utilities, and to coordinate with utilities to determine probable solutions (relocations) to resolve project impacts.

#### **Work Element 7.3.10.1 Existing Utilities Located**

The CONSULTANT shall field locate all above ground utility features, including measure downs to pipe runs and include the results in Work Element 5.1, SURVEY. In addition, the CONSULTANT shall contact ONE CALL and have the underground utilities marked. These shall also be included by the CONSULTANT in the topographic survey.

The STATE will supply the CONSULTANT with all utility information and as-built drawings previously supplied by the utilities. The CONSULTANT shall contact all known and potential public and private area utility agencies to confirm (or eliminate) the existence of project area facilities, and request any missing as-built information.

The CITY will research existing agreements and inform the CONSULTANT as to the presence or absence of an easement or franchise for each utility. The CONSULTANT shall document this data for future use in determining agreement relocation cost responsibility.

#### **Deliverables:**

One hard copy and one electronic copy of a utilities white paper that presents the results of this work element.

#### **Work Element 7.3.10.2 Existing Utility Plan**

Using the project basemap developed in Work Element 5.1, SURVEY, the CONSULTANT shall produce an Existing Utility Plan. The Plan will include all as-built data not located in the survey. The plan will be field checked and updated to account for any conflicts between field and asbuilt data and/or visually noted differences to this data. The CONSULTANT shall share the plan shared with each utility and obtain verification of for identified facilities locations.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

• 30% Level Existing Utility Location Plan.

#### **Work Element 7.3.10.3 Utility Relocation Plan**

The CONSULTANT shall develop Utility plans to a 30% design level per WSDOT design delivery matrix. This effort will identify all new proposed utilities as well as existing utilities to be relocated within the project area.

#### **Deliverables:**

30% Utility will be included as part of Preliminary Design and Estimate Package.

#### **Work Element 7.3.11 Cost Estimate**

The CONSULTANT shall develop Project Cost Estimate commensurate with a 30% Design Level. Quantity take offs and unit costs will be utilized to the extent possible at the 30% level. Lump sum costs and percentage costs will be utilized in cases where quantities can not be determined to a reasonable value based on a 30% design level.

#### **Deliverables:**

One (1) electronic and one (1) hardcopy of the following:

30% Opinion of Cost

#### Assumptions:

In providing opinions of cost for the PROJECT, CONSULTANT has no control over cost or price of labor and materials, unknown or latent conditions of existing equipment or structures that might affect operation or maintenance costs, competitive bidding procedures and market conditions, time or quality of performance by operating personnel or third parties, and other economic and operational factors that might materially affect the ultimate PROJECT cost or schedule. The CONSULTANT, therefore, will not warranty that the actual PROJECT costs will not vary from CONSULTANT'S opinions, analyses, projections, or estimates.

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## **Work Element 8: Right-of-Way**

#### **Approach**

The CONSULTANT shall manage its work consistent with best management practices and as further described in Work Elements 8.1 - 8.2, below.

- 8.1 Right-of-Way Plans
- 8.2 Legal Descriptions

## **Work Element 8.2 Legal Descriptions**

The CONSULTANT shall provide legal descriptions and exhibits to support the right-of-way process for the project. It is estimated that one parcel will require right-of-way acquisition.

#### **Assumptions:**

• Legal description and exhibit revisions will be required for one parcel for right-of-way acquisition as a result of property negotiations.

• Legal description and exhibit revisions will be required for one parcel for easements as a result of property negotiations.

#### **Deliverables:**

 Final draft and Final right-of-way legal descriptions in hard copy and electronic format per WSDOT guidelines

## **Work Element 8.3 Preliminary ROW Services**

#### **Purpose**

The CONSULTANT will provide preliminary ROW services to assist with assessing project siting, costs and feasibility and prepare for ROW appraisals and acquisition services.

#### CONSULTANT Services:

- Provide preliminary landowner research based on available public data for one parcel.
- Review preliminary project locations to identify possible ROW acquisitions and potential mitigation opportunities.
- Order title and prepare title review memos for a maximum of one parcel.
- Prepare up to two preliminary cost estimates in excel format based on readily available public data.

#### **CITY Responsibilities:**

- Review preliminary cost estimates
- Review title review memos and identify encumbrances to accept or clear

#### **Assumptions:**

 A maximum of one parcel and 2 project alignments will be researched and reviewed as part of the preliminary ROW services.

#### **Deliverables:**

- Title and title review memos
- Preliminary cost estimates.

#### **Work Element 8.4 Valuation Services**

#### **Purpose**

The CONSULTANT will manage the appraisal process and prepare a Project Funding Estimate (PFE and appraisal reports as needed.

#### **CONSULTANT Services:**

- Assemble all needed appraisal data and appraisal scope for the assigned parcel.
- Send out landowner contact letters to all affected parcel in advance of the appraisal.
- Provide a PFE for the assigned parcels.
- Provide appraisal reports for the assigned parcels.
- Provide appraisal reviews for the appraisal reports.

#### **CITY Responsibilities:**

Provide signed Determination of Values for the appraisal report.

#### **Assumptions:**

- CONSULTANT shall manage their appraisal staff to develop the most expeditious schedule for delivery of all appraisals.
- CITY shall provide any available information to CONSULTANT that is needed to complete
  the assigned appraisals.
- There will be a maximum 1 PFE report, , 1 appraisal reports and 1 appraisal reviews prepared by CONSULTANT.
- All appraisal deliverables will conform to WSDOT LAG Manual guidelines.

#### **Deliverables:**

- PFE
- Landowner Contact letters.
- Appraisal Report.

## **Work Element 8.5 ROW Acquisition Services**

CONSULTANT will prepare offer packages, review legal descriptions, present offers and negotiate purchases, track ROW status, prepare administrative settlement memos and condemnation packages, prepare executed documents for CITY approval, and process executed

documents for a maximum of oneparcel. At the end of the project all acquisition files will be transmitted to the CITY with all original documents.

#### **CONSULTANT Services:**

- Prepare an acquisition schedule for assigned parcel.
- Prepare ROW file for preliminary WSDOT review before making an offer.
- Prepare a monthly ROW status report in Excel format.
- Facilitate and attend monthly ROW status meetings.
- Prepare all documents and deeds required for the assigned parcel.
- Review all legal descriptions and survey exhibits and provide red line edits if needed.
- Act as the agent for CITY in all negotiations.
- Prepare administrative settlement memos and condemnation packages as needed.
- Manage closings through escrow company.
- Prepare ROW file for ROW certification and attend ROW certification review.
- Transmit completed file to CITY.

#### **CITY Responsibilities:**

- Review and approve the acquisition schedule.
- Approve the format of all documents and deeds used.
- Approve all administrative settlements and all condemnation packages.
- Make prompt payment to the owner or escrow company for the approved acquisition.
- Review and approve the transmitted file.

#### **Assumptions:**

- All ROW acquisition processes and deliverables will conform to WSDOT LAG Manual guidelines.
- There will be a maximum of 1 parcels acquired.
- There will be a maximum of 8 each ROW status reports prepared and ROW status meetings.
- Offer to purchase will be presented in person when feasible.

- Consultant will make up to four substantive contacts for each assigned acquisition with substantive contact being defined as any of the following: An in person meeting with landowner, A lengthy phone conversation(s) that results in landowner comment, input or counteroffer; An exchange of written or email correspondence that results in landowner comment, input or counteroffer.
- Acquisition activities on any given parcel shall be deemed completed if any of the following occurs; a negotiated settlement is reached, the offer is rescinded, an impasse is reached with the landowner or the parcel is transmitted for condemnation.
- CITY will have sufficient funding to pay for the acquisition of any parcel assigned.
- CITY shall approve all acquisition forms prior to their use.
- CONSULTANT shall review legal description and survey exhibits for all acquisitions needed for this project.
- The parcel shall be closed in escrow.
- There will be a maximum of one 2 hour pre offer ROW certification file review and a maximum of one 4 hour ROW certification review of completed files.

#### **Deliverables:**

- Acquisition schedule.
- Attend ROW status meetings and prepare ROW status reports.
- Completed Acquisition Documents
- Red Line Review of Legal Descriptions.
- Negotiation Services.
- Administrative Settlement Memos.
- Completed acquisitions or condemnation package.
- Prepare file for pre offer and final ROW certification review.
- Completed files

## **Work Element 9: Public Involvement**

# Work Element 9.1 Outreach (Public, Agency and Tribal Coordination)

CONSULTANT, in conjunction with **City** staff, will prepare materials for and participate in up to five **(5)** briefings to community groups and individual stakeholders. CONSULTANT will prepare materials and talking points, coordinate logistics, attend briefings and write summaries for each briefing. CONSULTANT will maintain a PowerPoint presentation describing the project for use by project team members in briefing agencies, elected officials, community groups, etc. The PowerPoint is expected to be updated quarterly with project progress. CONSULTANT will also track and log all presentations (Date, organization, attendance and key comments).

#### **Tribal Coordination**

**CONSULTANT** will support the internal design and permitting team tribal team and WSDOT Tribal Liaison by preparing agendas and summaries for up to three (3) Tribal Team meetings, preparing packets and materials for meetings with tribes and maintaining the Tribal Communications Log.

#### Assumptions:

• Assume 3 stakeholder briefings. Assume all are 2-hour meetings plus travel.

#### **Deliverables:**

- Presentations, talking points, logistics, attendance and summaries for up to eight (8) stakeholder briefings
- Attendance, agenda and summary for up to three briefings (2 hours per meeting)
- Updates of the Tribal Communications Log

# Exhibit C Electronic Exchange of Engineering and Other Data

In this Exhibit the agency, as applicable, is to provide a description of the format and standards the consultant is to use in preparing electronic files for transmission to the agency. The format and standards to be provided may include, but are not limited to, the following:

- I. Surveying, Roadway Design & Plans Preparation Section
  - A. Survey Data
  - B. Roadway Design Files
  - C. Computer Aided Drafting Files
  - D. Specify the Agency's Right to Review Product with the Consultant
  - E. Specify the Electronic Deliverables to Be Provided to the Agency
  - F. Specify What Agency Furnished Services and Information Is to Be Provided
- II. Any Other Electronic Files to Be Provided
- III. Methods to Electronically Exchange Data
  - A. Agency Software Suite
  - B. Electronic Messaging System
  - C. File Transfers Format

# Exhibit D-2 Payment (Cost Plus a Fixed Fee)

The CONSULTANT shall be paid by the AGENCY for completed work and services rendered under this AGREEMENT as provided hereinafter. Such payment shall be full compensation for work performed or services rendered and for all labor, materials, supplies, equipment, and incidentals necessary to complete the work specified in Section II, "Scope of Work." The CONSULTANT shall conform to all applicable portions of 48 CFR Part 31.

- A. Actual Costs: Payment for all consulting services for this PROJECT shall be on the basis of the CONSULTANT'S actual cost plus a fixed fee. The actual cost shall include direct salary cost, overhead, direct non-salary costs, and fixed fee.
  - Direct Salary Costs: The Direct Salary Cost is the direct salary paid to principals, professional, technical, and clerical personnel for the time they are productively engaged in work necessary to fulfill the terms of this AGREEMENT. The CONSULTANT shall maintain support data to verify the direct salary costs billed to the AGENCY.
  - 2. Overhead Costs: Overhead Costs are those costs other than direct costs, which are included as such on the books of the CONSULTANT in the normal everyday keeping of its books. Progress payments shall be made at the rate shown in the heading of this AGREEMENT under "Overhead Progress Payment Rate." Total overhead payment shall be based on the method shown in the heading of the AGREEMENT. The two options are explained as follows:
    - a. Fixed Rate: If this method is indicated in the heading of the AGREEMENT the AGENCY agrees to reimburse the CONSULTANT for overhead at the percentage rate shown. This rate shall not change during the life of the AGREEMENT.
    - b. Actual Cost: If this method is indicated in the heading of the AGREEMENT the AGENCY agrees to reimburse the CONSULTANT the actual overhead costs verified by audit, up to the Maximum Total Amount Payable, authorized under this AGREEMENT, when accumulated with all other Actual Costs.

A summary of the CONSULTANTS cost estimate and the overhead computation is shown in Exhibit "E" attached hereto and by this reference made part of this AGREEMENT. When an Actual Cost method is used, the CONSULTANT (prime and all sub-consultants) will submit to the AGENCY within six (6) months after the end of each firm's fiscal year, an overhead schedule in the format required by the AGENCY (cost category, dollar expenditures, etc.) for the purpose of adjusting the overhead rate for billing purposes. It shall be used for the computation of progress payments during the following year and for retroactively adjusting the previous year's overhead cost to reflect the actual rate.

Failure to supply this information by either the prime CONSULTANT or any of their subconsultants shall cause the AGENCY to withhold payment of the billed overhead costs until such time as the required information is received and an overhead rate for billing purposes is approved.

The AGENCY, STATE and/or the Federal Government may perform an audit of the CONSULTANT'S books and records at any time during regular business hours to determine the actual overhead rate, if they so desire.

- 3. Direct Non-Salary Costs: Direct Non-Salary Costs will be reimbursed at the Actual Cost to the CONSULTANT. These charges may include, but are not limited to, the following items: travel, printing, long distance telephone, supplies, computer charges and subconsultant costs.
  - a. Air or train travel will be reimbursed only to economy class levels unless otherwise approved by the AGENCY. The CONSULTANT shall comply with the rules and regulations regarding travel costs (excluding air, train, and rental car costs) in accordance with the AGENCY'S Travel Rules and Procedures. However, air, train, and rental car costs shall be reimbursed in accordance with 48 CFR Part 31.205-46 "Travel Cost
  - b. The billing for Direct Non-Salary Costs shall include an itemized listing of the charges directly identifiable whithe PROJECT.
  - c. The CONSULTANT shall maintain the original supporting documents in their office. Copies of the original supporting documents shall be supplied to the AGENCY upon request.
  - d. All above charges must be necessary for the services provided under this AGREEMENT.
- 4. Fixed Fee: The Fixed Fee, which represents the CONSULTANT'S profit, is shown in the heading of this AGREEMENT under Fixed Fee. This amount does not include any additional Fixed Fee, which could be authorized from the Management Reserve Fund. This fee is based on the Scope of Work defined in this AGREEMENT and the estimated person-hours required to perform the stated Scope of Work. In the event the CONSULTANT enters into a supplemental AGREEMENT for additional work, the supplemental AGREEMENT may include provisions for the added costs and an appropriate additional fee. The Fixed Fee will be prorated and paid monthly in proportion to the percentage of work completed by the CONSULTANT and reported in the Monthly Progress Reports accompanying the billings. Any portion of the Fixed Fee earned but not previously paid in the progress payments will be covered in the final payment, subject to the provisions of Section IX entitled "Termination of Agreement."
- 5. Management Reserve Fund: The AGENCY may desire to establish a Management Reserve Fund to provide the Agreement Administrator with the flexibility to authorize additional funds to the AGREEMENT for allowable unforeseen costs, or reimbursing the CONSULTANT for additional work beyond that already defined in this AGREEMENT. Such authorization(s) shall be in writing and shall not exceed

the lesser of \$100,000 or 10% of the Total Amount Authorized as shown in the heading of this AGREEMENT. The amount included for the Management Reserve Fund is shown in the heading of this AGREEMENT. This fund may not be replenished. Any changes requiring additional costs in excess of the Management Reserve Fund shall be made in accordance with Section XIV, "Extra Work."6. Maximum Total Amount Payable: The Maximum Total Amount Payable by the AGENCY to the CONSULTANT under this AGREEMENT shall not exceed the amount shown in the heading of this AGREEMENT. The Maximum Total Amount Payable is comprised of the Total Amount Authorized, and the Management Reserve Fund. The Maximum Total Amount Payable does not include payment for Extra Work as stipulated in Section XIV, "Extra Work." No minimum amount payable is guaranteed under this AGREEMENT.

- B. Monthly Progress Payments: The CONSULTANT may submit billings to the AGENCY for reimbursement of Actual Costs plus the calculated overhead and fee on a monthly basis during the progress of the work. Such billings shall be in a format approved by the AGENCY and accompanied by the monthly progress reports required under Section III, "General Requirements" of this AGREEMENT. The billings will be supported by an itemized listing for each item including Direct Salary, Direct Non-Salary, and allowable Overhead Costs to which will be added the prorated Fixed Fee. To provide a means of verifying the billed salary costs for CONSULTANT employees, the AGENCY may conduct employee interviews. These interviews may consist of recording the names, titles, salary rates, and present duties of those employees performing work on the PROJECT at the time of the interview.
- C. Final Payment: Final Payment of any balance due the CONSULTANT of the gross amount earned will be made promptly upon its verification by the AGENCY after the completion of the work under this AGREEMENT, contingent upon receipt of all PS&E, plans, maps, notes, reports, electronic data and other related documents which are required to be furnished under this AGREEMENT. Acceptance of such Final Payment by the CONSULTANT shall constitute a release of all claims for payment, which the CONSULTANT may have against the AGENCY unless such claims are specifically reserved in writing and transmitted to the AGENCY by the CONSULTANT prior to its acceptance. Said Final Payment shall not, however, be a bar to any claims that the AGENCY may have against the CONSULTANT or to any remedies the AGENCY may pursue with respect to such claims.

The payment of any billing will not constitute agreement as to the appropriateness of any item and at the time of final audit, all required adjustments will be made and reflected in a final payment. In the event that such final audit reveals an overpayment to the CONSULTANT, the CONSULTANT will refund such overpayment to the AGENCY within thirty (30) days of notice of the overpayment. Such refund shall not constitute a waiver by the CONSULTANT for any claims relating to the validity of a finding by the AGENCY of overpayment. The CONSULTANT has twenty (20) days after receipt of the final POST AUDIT to begin the appeal process to the AGENCY for audit findings.

D. Inspection of Cost Records: The CONSULTANT and their sub-consultants shall keep available for inspection by representatives of the AGENCY, STATE and the United States, for a period of three (3) years after receipt of final payment, the cost records and accounts pertaining to this AGREEMENT and all items related to or bearing upon these records with the following exception: if any litigation, claim or audit arising out of, in connection with, or related to this contract is initiated before the expiration of the three (3) year period, the cost records and accounts shall be retained until such litigation, claim, or audit involving the records is completed.

## Exhibit E-1 Consultant Fee Determination - Summary Sheet

Project: I-5/SR 529 Interchange Expansion Project

Direct	Cal	 Cook	IDCC).

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*Classification	Man Hours		Rate	= Cost	
Principal QA/QC Manager	118	х	84.43	9,963	
Sr. Project Manager / Sr. Transportation Planner		X	73.64	55, <b>1</b> 56	
Sr. Traffic Engineer	482	X	51.64	24,890	
Traffic Engineer	100	Х	37.80	3,780	
Planner	274	Х	31.23	8,55 <b>7</b>	
Sr. Traffic Designer	32	Х	73.22	2,343	
Traffic Designer	148	Х	33.50	4,958	
Graphic	88	Х	31.57	2,778	
Sr. Civil Project Manager	185	Χ	70.01	12,952	
Civil Design Eng.	761	Х	38.61	29,382	
Storm Water	320	Х	40.50	12,960	
Utilities	88	Х	44.70	3,934	
CADD Tech	236	Х	38.30	9,039	
Civil QC	36	Х	61.16	2,202	
Sr. Bridge Eng.	253	Х	68.27	17,272	
Sr. Bridge Eng	72	Х	92.07	6,629	
Sr. Bridge Eng	68	Х	54.82	3,728	
Sr. Bridge Eng	172	Х	49.37	8,492	
Bridge Eng.	216	Х	33.96	7,335	
Bridge EIT	336	Х	31.20	10,483	
Sr. CADD Sr. Env. Planner	332 442	X	42.52	14,117	
S. Env. Planner	70	X	62.57	27,656	
Sr. Env. Sci.	70 41	X	63.02 41.78	4,411 1,713	
Env. Sci	85	X	36.99	3,144	
Jr. Env. Planner	268	x	28.87	7,737	
Jr. Env. Sci	81	X	22.77	1,844	
Env. Sci	89	X	42.38	3,772	
Env Sci	97	Х	37.50	3,638	
Env. Planner	241	X	42.71	10,293	
Env. Sci	65	Х	33.74	2,193	
Env. Sci	81	X	35.49	2,875	
Sr. Env Sci-Air Quality	81	Х	55.15	4,467	
Sr. Env. Sci-Noise	8	Х	46.58	373	
GIS	204	Х	40.32	8,225	
Sr. Water Resource Eng	185	Х	64.84	11,995	
Biologist	81	Х	40.50	3,281	
Water Resource Eng	196	Χ	35.75	7,007	
Sr. Water Resource Eng	8	Х	52.80	422	
ROW Supervisor	40	Х	70.17	2,807	
ROW Agent	82	Х	41.78	3,426	
ROW Tech	64	Х	28.73	1,839	
QA/QC	12	Х	84.58	1,015	
Editor	98	Х	24.84	2,434	
Administ.	106	Х	31.61	3,351	
Sr. Adminst	90	Х	42.34	3,811	
3% Labor Escalation for year 2015				1,124	
* see attached Exhibit E-1.1 ANTE table			Total DSC =	375,803	
				0.0,000	
Overhead (OH Costincluding Salary Add	tives):				
OH Rate X DSC of	158.06%	_х\$	375,802.62	593,994	
		•			
Fixed Fee (FF):					
FF Rate X DSC of	30.00%	x\$	375,802.62	112,741	
Reimbursables:					
Itemized				17,000	
				17,000	
Subconsultant Cost (See Exhibit G):				294,300	
Grand Total				1,393,837	
				1,393,837	
Drongered Buy			Data	3.49.14	
Prepared By: Don Sims			Date:	2.18.14	

## Exhibit E-1.1 HDR ENGINEERING, INC. ACTUALS NOT TO EXCEED TABLE

#### SR529 - *I5 Interchange Design* Labor Categories

	Direct Salary Cost		DSC NTE	Fixed Fee/F 30.0% X	Profit DSC NTE	Loaded Labo (Direct + OH	
Employee Classification Y2014	Hourly		ourly		Hourly		Hourly
Principal	\$ 141.35	\$ 2	223.42	\$	42.41	\$	407.18
Principal/Program Manager	\$ 108.57	\$ 1	171.61	\$	32.57	\$	312.75
Sr. Project Managers	\$ 93.71	\$ 1	48.12	\$	28.11	\$	269.94
Project Managers	\$ 70.35	\$ 1	11.20	\$	21.11	\$	202.66
Sr. Project Engineers	\$ 65.10	\$ 1	02.90	\$	19.53	\$	187.53
Project Engineers	\$ 55.91	\$	88.37	\$	16.77	\$	161.05
Traffic Engineers	\$ 58.91	\$	93.11	\$	17.67	\$	169.69
Design Engineer/Designers	\$ 55.00	\$	86.93	\$	16.50	\$	158.43
Senior Technicians	\$ 44.10	\$	69.70	\$	13.23	\$	127.03
Technicians	\$ 37.80	\$	59.75	\$	11.34	\$	108.89
Construction Mgr/Resident Engr	\$ 58.15	\$	91.91	\$	17.45	\$	167.51
Sr Construction Inspectors	\$ 49.14	\$	77.67	\$	14.74	\$	141.55
Construction Inspectors	\$ 42.53	\$	67.22	\$	12.76	\$	122.51
Construction Office Engineer	\$ 46.46	\$	73.43	\$	13.94	\$	133.83
Sr Environmental Scientists	\$ 70.61	\$ 1	11.61	\$	21.18	\$	203.40
Environmental Scientists	\$ 52.52	\$ 8	83.01	\$	15.76	\$	151.29
Jr Environmental Scientists	\$ 35.56	\$ :	56.21	\$	10.67	\$	102.44
Transportation Planners	\$ 78.75	\$ 12	24.47	\$	23.63	\$	226.85
Environmental Planners	\$ 66.15	\$ 10	94.56	\$	19.85	\$	190.56
ROW Agents/Real Estate	\$ 53.55	\$ 8	34.64	\$	16.07	\$	154.26
ROW Techs/Real Estate	\$ 33.09	\$ 5	52.30	\$	9.93	\$	95.32
Review Appraisor/ Real Estate	\$ 50.73	\$ 8	80.18	\$	15.22	\$	146.13
Principal Economists	\$ 126.47	\$ 19	9.90	\$	37.94	\$	364.31
Senior Economists	<b>\$</b> 77.22	\$ 12	2.05	\$	23.17	\$	222.44
Economists	\$ 44.84	\$ 7	0.87	<u>.</u> ;	13.45	\$	129.16
Graphic Designers	\$ 55.89	\$ 8	8.34	\$	16.77	\$	161.00
Senior Administrators	\$ 65.31	\$ 10	3.23	\$	19.59	\$	188.13
Administrators	\$ 41.40	\$ 6	5.44	\$	12.42	\$	119.26
Clerical	\$ 36.21	\$ 5	7.23	\$	10.86	\$	104.30

Billing Multiplier = 1.0 x direct salary cost + 1.5806 x direct salary cost + 0.3 x direct salary cost = 2.8806 x direct salary cost Rates include no escalation



Lynn Peterson Secretary of Transportation

August 1, 2013

Transportation Building 310 Maple Park Avenue S.E. P.O. Box 47300 Olympia, WA 98504-7300 360-705-7000 TTY: 1-800-833-6388 www.wsdot.wa.gov

Gene Sacco, Senior Project Controller HDR Engineering, Inc. 500 – 108<sup>th</sup> Ave NE, Suite 1200 Bellevue WA 98004-5549

RE:

HDR Engineering, Inc. Indirect Cost Rate Schedules

Fiscal Year End December 29, 2012

Dear Mr. Sacco:

The Nebraska Department of Roads (NDOR) has concluded their cognizant review of HDR Engineering, Inc. Nebraska is the Cognizant State for HDR Engineering, Inc. NDOR accepted the audit performed by the CPA firm, Ernst & Young, LLP for the above referenced fiscal year. We were provided with their letter and a copy of the CPA audit report.

Based on the cognizant state's review and acceptance of the HDR Engineering, Inc. indirect cost rate we are issuing this letter of review establishing HDR Engineering, Inc's indirect cost rate for the fiscal year ending December 29, 2012, at 158.06% (rate includes Facilities Cost of Capital of 0.18%) of direct labor. This rate includes technology costs. Costs billed to actual agreements will still be subject to audit of actual costs.

Please check with the WSDOT Consultant Services Office (HQ) and/or the WSDOT Area Consultant Liaison to determine when this reviewed rate will be applicable to your WSDOT agreement(s).

If you, or any representatives of HDR Engineering, Inc., have any questions, please contact Martha Roach, Jeri Sivertson, or Steve McKerney at (360) 705-7003.

Sincerely, Martha Rosch

Martha S. Roach

Agreement Compliance Audit Manager

MR:ds Enclosure

cc:

Steve McKerney, Director of Internal Audit

Jeri Sivertson, Assistant Director of Internal Audit

Larry Schofield, MS 47323

File



STATE OF NEBRASKA

DEPARTMENT OF ROADS

Rondalt D. Peters, P.E., Director - State Engineer 1500 Highway 2 \* PO Box 94759 \* r incoln NF, 08509-4759 Phone (402) 471-4567 \* EAX (402) 470-4325 \* www.transportation.nebriskin.gov

July 18, 2013

Report No. 2014-3

HDR Engineering, Inc. and Subsidiaries 8404 Indian Hills Drive Omaha, NE 68114

Chad Hartnett, Treasurer, Controller, and Director of Accounting

Subject: Review of FYE December 29, 2012 Indirect Cost Rate Audit performed by Ernst & Young, LLP.

We have completed a cognizant review of the independent Certified Public Accountant (CPA) audit and supporting work papers, of the Indirect Cost Rates of HDR Engineering, Inc. and Subsidiaries, for the year ended December 29, 2012. This review was conducted in accordance with our role as Cognizant Agency as defined in 23 U.S.C. 112(b)(2)(c) and 23 CFR 172.3 and 172.7.

Our review consisted of discussions with HDR officials and a review of Ernst & Young LLP's audit report and audit working papers to ensure that the indirect cost rate audit was performed in accordance with Government Auditing Standards, and that the schedule of indirect costs was prepared in accordance with accounting practices prescribed in 48 CFR Part 31 of the Federal Acquisition Regulations. Our cognizant review was performed in accordance with the AASHTO Review Program for CPA Audits of Consulting Engineers' Indirect Cost Rates.

In connection with our cognizant review, nothing came to our attention that caused us to believe that the examination, and supporting work papers for the Indirect Cost Rate, and the related Accountant's Report we reviewed did not conform in all material respects to the aforementioned regulations and auditing standards.

Accordingly, we recommend acceptance of the following rates:

**Combined Indirect Cost Rate** 

157.88% \*

**Facilities Capital Cost of Money** 

0.18945%

Note: Technology costs are included in the indirect cost rate.

James A. Dietsch

Highway Audit Manager

in Equal Opportunity Affirmative Action Employer

#### **CERTIFICATION OF FINAL INDIRECT COSTS**

Firm Name: HDR Engineering, Inc.
Final Indirect Cost Rates:
Home Rate: 157.88% Field Rate:
Cost of Capital: 0.18945% Other:
Fiscal Period Covered (mm/dd/yyyy): 12/29/2012
I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:
1.) All costs included in this proposal to establish final indirect cost rates are allowab in accordance with the cost principles of the Federal Acquisition Regulations (FAR, of title 48, Code of Federal Regulations (CFR), part 31.
<ol> <li>This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.</li> </ol>
All known material transaction or events that have occurred affecting the firm's ownership, organization and indirect cost rates have been disclosed.
*Signature:
*Name of Certifying Official (Prim): Galen J. Meysenburg
*Title: Senior Vice President   Company Controller
Date of Certification (mm/dd/yyyy): 04/30/2013

\*Note: This form is to be completed by an individual executive or financial officer of the consultant at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has the authority to represent the financial information utilized to establish the indirect cost rate proposal submitted in conjunction with a contract.

#### HDR Engineering, Inc. and Subsidiaries

#### Statement of Direct Labor, Fringe Benefits, and General Overhead

#### Year Ended December 29, 2012

	Actual	Unalfowable Adjustment	FAR Reference	Allowable
DIRECT LABOR	\$ 286,482,708 \$	4,661	(1)	\$ 286,487,369
FRINGE BENEFITS: Vacation Holiday Sick leave Payroll laxes Group insurance Retirement benefits	\$ 36,470,646 13,713,365 380,419 35,267,151 31,776,432 18,121,800	\$ - - - - (26,202)	(2)	\$ 36,470,646 13,713,365 380,419 35,267,151 31,776,432 18,095,598
Total fringe benefits	135,729,813	(26,202)		135,703,611
GENERAL OVERHEAD: Indirect labor: General Marketing Travel and expenses – general Employees' expenses	119,417,645 35,219,337 8,600,913 10,891,247	(2,905,356) (107,801) (701,517) (2,485,493)	(3) (4) (5) (6)	116,512,289 35,111,536 7,899,396 8,405,754
Supplies Building rental and expenses – net Taxes – general Computer expense Depreciation and amortization	307,105 47,960,299 3,265,678 44,616,829 8,533,039	(13,687) (2,947) (3,564,413)	(7) (8) (9)	307,105 47,960,299 3,251,991 44,613,882 4,968,626
Postage Telephone Subscriptions Donations	837,468 4,524,804 205,682 1,415,669	(42) (1,415,669)	(10)	837,468 4,524,762 205,682
Insurance and self-insurance Bad debt Office expenses Printing Marketing	11,809,591 317,060 761,909 3,621	1,164,850 (317,060)	(12) (13)	12,974,441 - 761,909 3,621
Intercompany overhead Administrative costs Temporary help Goodwill	6,250,075 1,928,998 13,402,542 529,492	(4,777,145) - (2,198,957) -	(14)	1,472,930 1,928,998 11,203,585 529,492
Interest — net Autos Professional services Miscellaneous	239,900 614,097 1,008,818 977,989	(239,900) (614,097) (47,780) (89,622)	(9) (16) (17) (18)	961,038 888,367
Allocated expenses State income tax expense Total general overhead	793,278 33,475,948 938,520 358,847,553	(559,566) (23,491,123) 110,958 (42,256,367)	(19) (21) (20) –	233,712 9,984,825 1,049,478 316,591,186
TOTAL FRINGE BENEFITS AND GENERAL OVERHEAD	\$ 494,577,366 <b>\$</b>	(42,282,569)		
TOTAL FRINGE BENEFITS AND GENERAL OVERHEAD RATE	172.64 %			157.88 %

See Notes to Statement and Schedule.

#### HDR Engineering, Inc. and Subsidiaries

#### Description of Federal Acquisition Regulation (FAR) References

#### Year Ended December 29, 2012

- (1) 31.201-4(a) A cost is allocable directly to a government contract if it is incurred specifically for the contract
- (2) 31.205-6(j) Pension amount funded in excess of the pension cost assigned to a cost accounting period is unallowable.
- (3) 31.205-6(p), 27(a), 35 Compensation paid to senior executives in excess of allowable limits. Expenditures in connection with acquisition costs are unallowable. Certain expenditures in connection with relocation costs are unallowable.
- (4) 31.205-1(f)(1) Portion of unallowable public relations and advertising costs.
- (5) 31.205-14, 46, 51 Costs of entertainment are unallowable. Meals and lodging costs in excess of federal per diem rates are unallowable. Costs of alcoholic beverages are unallowable.
- (6) 31.205-1(f)(7), 14, 22, 51 Costs of memberships in civic and community organizations are not allowable. Costs of entertainment are unallowable. Lobbying and political activities are unallowable. Costs of alcoholic beverages are unallowable.
- (7) 31.205-27(a) Expenditures in connection with acquisition costs are unallowable.
- (8) 31.205-1(f)(1), 14, 46 Portion of unallowable public relations and advertising costs. Costs of entertainment are unallowable. Meals and lodging costs in excess of federal per diem rates are unallowable.
- (9) 31.205-49 Amortization of acquisition intangibles and goodwill is unallowable.
- (10) 31.205-1(f)(7), 14, 22, 51 Costs of memberships in civic and community organizations are not allowable. Costs of entertainment are unallowable. Lobbying and political activities are unallowable. Costs of alcoholic beverages are unallowable.
- (11) 31.205-8 Contributions and donations are unallowable.
- (12) 31.205-19 Insurance and self insurance See insurance discussion in Note 3.
- (13) 31.205-3 Bad debts are unallowable.

#### HDR Engineering, Inc. and Subsidiaries

#### Description of Federal Acquisition Regulation (FAR) References (continued)

- (14) 31.205-1(f)(1) and (7), 8, 14, 22, 46 Portion of unallowable public relations and advertising costs. Contributions and donations are unallowable. Costs of entertainment are unallowable. Lobbying and political activities are unallowable. Meals & lodging costs in excess of Federal per diem rates are unallowable.
- (15) 31.205-1(f)(1) and (7), 8, 14, 22, 27, 46 Portion of unallowable public relations and advertising costs. Contributions and donations are unallowable. Costs of entertainment are unallowable. Lobbying and political activities are unallowable. Expenditures in connection with acquisition costs are unallowable. Meals and lodging costs in excess of Federal per diem rates are unallowable.
- (16) 31.205-20 Interest and other financial costs are unallowable.
- (17) 31.205-6(m)(2) Portion of the cost of company-furnished automobiles that relates to personal use by employees, including transportation to and from work, are unallowable.
- (18) 31.205-3,22,27(a), 30 Bad debts are unallowable. Lobbying and political activity costs are not allowable. Expenditures in connection with acquisition costs are unallowable. Patent costs not associated with government contracts are unallowable.
- (19) 31.205-3, 14, 46(c)(2), 51 Bad debts are unallowable. Costs of entertainment are unallowable. Portions of costs of leased airplane for business travel are unallowable. Costs of alcoholic beverages are unallowable.
- (20) 31.205-41(b)(7) Portion of state income tax which is deferred and not a current tax expense is not allowable.
- (21) Portion of allocated expenses from the parent are unallowable under the same FAR provisions discussed in this section. See discussion in Note 5.

# HDR Engineering, Inc. and Subsidiaries Schedule of Facilities Capital Cost of Money

#### Year Ended December 29, 2012

Facilities capital employed		\$	28,946,144
Average Secretary of the Treasury interest rate	s	-	1.8750%
Facilities capital cost of money		\$	542,740
Direct labor base		\$	286,487,369
Facilities capital cost of money rate		-	0.18945%
See Notes to Statement of Schedule			

1304-1068306-d

### Exhibit G Subcontracted Work

The AGENCY permits subcontracts for the following portion of the work of this AGREEMENT:

1-Alliance
Complete topographic survey for Project limits and provide parcel legal descriptions
Shannon & Wilson
Conduct Soil borings and geotechnical investigation and recommendations for Project
SWCA Environmental
Complete Cultural and Historical Resource Study
N N N N N N N N N N N N N N N N N N N

#### **EXHIBIT G-1**

# Subconsultant Fee Determination - Summary Sheet Mandatory when subconsultants are utilized

Project:	I-5/SR 529 Interchange Expa	nsion Project			E
Subconsu	Itant: 1 Allia	nce Geomatics			
Direct Sala	ary Cost (DSC):				
	*Classification	Man Hours Lo	ad Billing Rate	=	Cost
	Principal Project Manager Prj Suveryor CAD Tech V Tech III Admin	8.0 X 20.0 X 80.0 X 136.0 X 168.0 X 168.0 X 9.0 X	151.00 121.00 111.00 88.00 88.00 75.00 55.00	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1,208.00 2,420.00 8,880.00 11,968.00 14,784.00 12,600.00 495.00
	*see attached G.1.1 ANTE ta	ble	Total DSC =		\$52,355.00
Overhead (	OH Cost Including Salary	Additivies):			
	OH Rate X DSC of	% x	\$52,355.00	£.	\$0.00
Fixed Fee (	( <b>FF)</b> : FF rate X (DSC )of	0% x	\$52,355.00	:	\$0.00
Reimbursa	<b>bles:</b> Itemized				\$1,331.00
Subconsul	tant Costs (See Exhibit G):			ě	\$53,686.00
	<b>a</b>				
Prepared By	Jason Nakamura	Date:	1.20.14		

# Actuals Not To Exceed Table (ANTE)



1 ALLIANGE

GEOMATICS SURVEYING & MAPPING

1 Alliance Geomatics, LLC 625 Strander Blvd., Suite E Seattle, WA 98188

Direct Labor Rate	NTE
Job Classifications	

_		
Safe Harbor Overhead	110%	NTE

Fee		
Harbor Fixed	30%	
Safe		

All Inclusive Hourly Billing Rate NTE	NTE
---	-----

Principal Surveyor Project Manager Project Surveyor	Tech IV (Office & Field) Tech III (Office & Field)	Admin
\$55.00 \$44.00 \$40.00	\$30.00 \$25.00	\$20.00
\$60.50 \$48.40 \$44.00	\$33.00 \$27.50	\$22.00
\$16.50 \$13.20 \$12.00	\$9.00 \$7.50	\$6.00
\$132.00 \$105.60 \$96.00	\$72.00 \$60.00	\$48.00

#### **EXHIBIT G-1**

# Subconsultant Fee Determination - Summary Sheet Mandatory when subconsultants are utilized

Project:	I-5/SR 529 Interchange Expansion P	roject				
Subconsu	ultant:	Shannon & Wilso	on			
Direct Sal	ary Cost (DSC):					
	*Classification	Man Hours		Labor Rate	=	Cost
	Principal In Charge	25	X	75		1,875
	Senior Associate	112	Χ	65.00		7,280
	Senior Principal Engineer	231	Χ	47.00		10,857
	Senior Professional Engineer/Geologist	518	Χ	36.00		18,648
	Drafting	44	X	25.00		1,100
	Clerical		X	25.00	:	600
			<b>X</b>		i -	
Overhead	*see attached G-1.1 ANTE Tabel			Total DSC =	3	40,360
Overhead	(OH Cost Including Salary Additiv	ies):				
	OH Rate X DSC of	193.40%x		\$40,360.00		78,056
Fixed Fee	• •					
	FF rate X (DSC )of	30.00% x		\$40,360.00	-	12,108
Reimbursa	ables: Itemized				-	85,254
Subconsu	Itant Costs (See Exhibit G):				*	215,778
Prepared By	r: Bob Mitchell	Date	e:	1.20.14		

# Exhibit G-1.1

# ACTUALS NOT TO EXCEED TABLE (ANTE)

# I-5/SR 529 Interchange Expansion Project SHANNON & WILSON, INC.

Classification	Class Code	Direct Salary Cost NTE	Overhead 193.40% DSC NTE	Fee 30% DSC NTE	Billing Rate Range NTE
Project Principal	T27 / T28 / T29	\$88.15	\$170.48	\$26.45	\$285.08
Vice President	T25	\$76.41	\$147.77	\$22.92	\$247.11
Sr. Associate/Associate	T22/T23/T24	\$63.98	\$123.74	\$19.19	\$206.91
Sr. Prin./Principal Professional	T19/T20	\$48.71	\$94.21	\$14.61	\$157.54
Senior Professional	T18	\$37.95	\$73.39	\$11.38	\$122.73
Professional III/IV	T16/T17	\$36.67	\$70.92	\$11.00	\$118.59
Professional I/II	T14/T15	\$26.00	\$50.28	\$7.80	\$84.08
Senior Drafter/Technician	S17 / S19	\$36.12	\$69.85	\$10.84	\$116.81
Drafter/Technician	S09 / S10 / S11 / S13 / S15	\$26.06	\$50.40	\$7.82	\$84.29
Administration	A15/A17/A19	\$36.67	\$70.92	\$11.00	\$118.59
Clerical	A07 / A09 / A10 / A11 / A13	\$21.00	\$40.61	\$6.30	\$67.91

Invoiced costs may not exceed the NTE rate per classification Billing Multiplier =  $1.0 \times \text{direct}$  salary cost +  $1.934 \times \text{direct}$  salary cost +  $0.3 \times \text{direct}$  salary cost =  $3.2340 \times \text{direct}$  salary cost

#### **EXHIBIT G-1**

#### Subconsultant Fee Determination - Summary Sheet Mandatory when subconsultants are utilized

Project:	I-5/SR 529 Interchange Expansion Project				
Subconsult	ant SWCA Environmental Consultants				
Direct Salar	ry Cost (DSC):		9		
	*Classification	Man Hours	Labor Rate	=	Cost
	Project Manager	4 X	56.06		224
	Project Archaeologist	120 X	27.40	-	3,288
	Architectural Historian	8 X	27.30	_	218
	Researcher	X	23.10	-	508
	Asst Geoarch/Staff Archaeologist	64 X	19.85	1	1,270
	Staff Archaeologist	62 X	19.37		1,201
	GIS/Production	8	29.81	-	238
	Graphics	2 X	21.74	-	43
	Editor	4	28.70	=	115
Overhead (C	*see attached G-1.1 ANTE Tabel  OH Cost Including Salary Additivie		Total DSC =	_	7,107
	OH Rate X DSC of	_170.55%_ x	\$7,106.94	-	12,121
Fixed Fee (F	FF): FF rate X (DSC )of	30.00%_ x	\$7,106.94		2,132
Reimbursab	lles: Itemized			_	3,202
Subconsulta	ant Costs (See Exhibit G):			_	24,562

Prepared By:

Lorelea Hudson

Date:

12.30.13

Subconsultant Fee Determination - Summary Sheet

Fee Schedule

Subconsultant: SWCA Environmental

Consultants

Subcategory: Cultural Resources Expertise: Archaeological and Historical

Position Classification	Max Direct	Overhead	Profit	Max Rate
	Salary Rate	@ <u>170.55%</u>	@30 <u>.00%</u>	Per Hour
Administrative Assistant	\$22.04	\$37.59	\$6.61	\$66.24
Senior Archaeologist	\$40.32	\$68.77	\$12.10	\$121.18
Archaeologist	\$26.50	\$45.20	\$7.95	\$79.65
Project Archaeologist	\$28.70	\$48.95	\$8.61	\$86.26
Project Archaeologist / Laboratory Director	\$26.10	\$44.51	\$7.83	\$78.44
Senior Staff Archaeologist	\$28.94	\$49.36	\$8.68	\$86.98
Staff Archaeologist	\$19.37	\$33.04	\$5.81	\$58.22
Archaeological Field Technician	\$16.80	\$28.65	\$5.04	\$50.49
Archaeologist / Architectural Historian	\$27.30	\$46.56	\$8.19	\$82.05
Architectural Historian	\$27.39	\$46.71	\$8.22	\$82.32
Cartographic / GIS Specialist /Production Manager	\$29.81	\$50.84	\$8.94	\$89.59
Cultural Resources Specialist	\$35.00	\$59.69	\$10.50	\$105.19
Environmental Program Manager	\$56.49	\$96.34	\$16.95	\$169.78
Geoarchaeologist	\$27.40	\$46.73	\$8.22	\$82.35
Assistant Geoarchaeologist/Staff Archaeologist	\$19.85	\$33.85	\$5.96	\$59.66
Assistant Lab Manager/Graphics Specialist/Researcher	\$23.10	\$39.40	\$6.93	\$69.43
Graphic Specialist / Staff Photographer	\$21.74	\$37.08	\$6.52	\$65.34
Historical / Industrial Archaeologist	\$26.35	\$44.94	\$7.91	\$79.91
Senior Project Manager	\$50.96	\$86.91	\$15.29	\$153.16
Project Manager	\$35.82	\$61.09	\$10.75	\$107.66
Senior Historian	\$42.40	\$72.31	\$12.72	\$127.43
Project Manager/Principal Investigator	\$56.06	\$95.61	\$16.82	\$168.48
Editor	\$28.70	\$48.95	\$8.61	\$86.26
Senior Proposal Coordinator	\$27.00	\$46.05	\$8.10	\$81.15

The rates listed above are the maximum rates payable under this AGREEMENT. Rates invoiced shall be based on the direct salary of the individual employee and shall not exceed those listed in this



Lynn Peterson Secretary of Transportation

July 9, 2013

Transportation Building 310 Maple Park Avenue S.E. P.O. Box 47300 Olympia, WA 98504-7300 360-705-7000 TTY: 1-800-833-6388 www.wsdot.wa.gov

Jeannie Brozik, Accounting Manager Shannon & Wilson, Inc. 400 N 34<sup>th</sup> St, Suite 100 PO Box 300303 Seattle WA 98103-8600

RE: Shannon & Wilson, Inc. Indirect Cost Rate Schedules Fiscal Year End December 31, 2012

Dear Ms. Brozik:

We accept the audit work performed by CPA Consulting, Inc. P.S. related to the Indirect Cost Rate schedule for the above referenced fiscal year for Shannon & Wilson, Inc. Our office did not review the work performed by CPA Consulting, Inc. P.S.

The schedule was audited by the CPA Consulting, Inc. P.S. for compliance with Part 31 of the Federal Acquisition Regulations. CPA Consulting, Inc. P.S. accepted an Indirect Cost Rate for the year ended December 31, 2012, at 193.40% (rate includes Facilities Cost of Capital of 0.198%) of direct labor.

Based on the work performed by the CPA, we are issuing this letter establishing Shannon & Wilson, Inc. Indirect Cost Rate for the fiscal year ending December 31, 2012, at 193.40% (rate includes Facilities Cost of Capital of 0.198%) of direct labor. Costs billed to actual agreements will still be subject to audit of actual costs.

Please check with the WSDOT Consultant Services Office (HQ) and/or the WSDOT Area Consultant Liaison to determine when this reviewed rate will be applicable to your WSDOT agreement(s).

Ms. Brozik Shannon & Wilson, Inc. July 9, 2013 Page 2

If you, or any representatives of Shannon & Wilson, Inc., have any questions, please contact Martha Roach, Jeri Sivertson, or Steve McKerney at (360) 705-7003.

Sincerely,

Martha S. Roach

Agreement Compliance Audit Manager

mattra Pouch

MR:ds Enclosure

cc: Steve McKerney, Director of Internal Audit

Jeri Sivertson, Assistant Director of Internal Audit

Larry Schofield, MS 47323

File

ON & WILSON, INC. NERAL OVERHEAD DECEMBER 31, 2012	Percent of Direct Labor	%0 9 <i>L</i>		6	116.2%
SHANNON & WILSON, INC. S AND GENERAL OVERHEAD DECEMBER 31, 2012	Proposed Audited Total \$ 11.592,855	1,365,915 914,082 2,246,122 4,394,363 8,920,482	3,295,377 3,514,698 277,358 1,951,102 503,098 267,428	477,929 539,935 343,662 540,122 590,546 723,019 532,433	13,475,788 \$ 22,396,270
, FRINGE BENEFIT	FAR Reference	(4) 31.205-6 (2,3) 31.205-1,13	(1) 31.205-6(f) (5) 31.205-1 (13) 31.203(b) (6) 31.205-46 (7,8,9) 31.205-1,8,14 (10) 31.205-20	(6) 31.205-46 (11) 31.205-41 (12) 31.205-3	
SHANNON & WILSON, INC. STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD DECEMBER 31, 2012	Portion Unallowable	\$ 500,000 ( - - - (87,435) (2	(26,404) (147,504) (16,098) (16,098) (16,098) (19,098) (1	1	(2,018,043) \$ (1,605,478)
STATEMENT (	General Ledger Balance \$ 11,592,855	865,915 914,082 2,246,122 4,481,798 8,507,917	3,321,781 3,662,202 277,358 1,957,200 505,477 653,477 192 560,206	539,935 343,662 343,662 567,994 590,546 723,019 1,862,630 91,348	5 24,001,748
8 2 36	DIRECT LABOR FRINGE BENEFITS	Additional compensation Qualified retirement plans Vacation, sick and holiday Payroll fringes GENERAL OVERHEAD	Administrative salaries Proposal and business development labor Equipment Rent and facility Travel and auto Proposal and business development Interest Supplies Outside professional services	Computer Telephone and postage Conferences and professional Depreciation Insurance Taxes and licenses Bad debts Revenue from in-house charges	Total Fringe Benefits and General Overhead Facilities capital cost of money

# SHANNON & WILSON, INC. NOTES TO STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD DECEMBER 31, 2012

#### FAR References:

- (1) Unallowable spot bonuses
- (2) Taxes related to unallowable promotion labor
- (3) Unallowable meals and employee gifts
- (4) Paid bonus accrued in prior year
- (5) Advertising and public relations labor
- (6) Excess per diem and travel expense
- (7) Unallowable contribution costs
- (8) Unallowable entertainment costs
- (9) Unallowable advertising and public relations costs
- (10) Interest expenses
- (11) Federal income taxes
- (12) Unallowable bad debts
- (13) Rent charged as direct costs to projects

#### NOTE B: DESCRIPTION OF ACCOUNTING SYSTEM (continued)

**Depreciation** – Depreciation has been provided on the straight-line method over the estimated useful lives of buildings, equipment and leasehold improvements. The depreciation included in General Overhead does not exceed the amount used in the financial statements and is allowable under FAR 31.205-11(e).

Sick Leave – Sick leave costs are neither accrued annually nor paid to an employee upon termination. Applicable sick leave costs are expensed if paid and then included in the overhead rate.

Compensation – The Company paid no compensation in excess of the FAR 31,205-6(p) limit of \$763,029 per person. Senior executive compensation was reasonable in comparison with salary survey data in accordance with FAR 31,205-6(a).

#### NOTE C: FACILITIES CAPITAL COST OF MONEY (FCCM)

The Facilities Capital Cost of Money rate has been calculated in accordance with FAR Section 31,205-10; using average net book values of equipment and facilities multiplied by the average Treasury rates for the applicable period, as shown:

Beginning net capital assets, January 1, 2012 Ending net capital assets, December 31, 2012		1,342,755 1,100,302
Average Net Capital Assets Average Treasury Rate		1,221,529 1.875%
Facilities Cost of Money	_\$	22,904
Direct Labor Base	\$ 1	1,592,855
FCCM Rate		0.198%

#### NOTE D: BENEFIT PLANS

The Company has two qualified retirement plans which cover employees who meet eligibility requirements. The Company made cash contributions of \$914,082 to the plans during the year ended December 31, 2012.

#### NOTE E: AUDITOR CONTACT

The person to contact relative to this engagement is:
Kristine L. Tryon
CPA Consulting, Inc., P.S.
Phone (425) 401-5061

#### **Certification of Final Indirect Costs**

FIFM Name: Shannon & Wilson, Inc.
Indirect Cost Rate Proposal: 193.4%
Date of Proposal Preparation (mm/dd/yyyy): 06/20/2013
Fiscal Period Covered (mm/dd/yyyy to mm/dd/yyyy): 01/01/2012 to 12/31/2012
I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:
1.) All costs included in this proposal to establish final indirect cost rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of title 48 Code of Federal Regulations (CFR), part 31.
2.) This proposal does not include any costs which are expressly unallowable under the coprinciples of the FAR of 48 CFR 31.
All known material transactions or events that have occurred affecting the firm's ownership, organization and indirect cost rates have been disclosed.
Signature: PalM Shall.
Name of Certifying Official* (Print): Paul Godlewski
Title: Vice President
Date of Certification (mm/dd/yyyy): 06/20/2013

\*The "Certifying Official" must be an individual executive or financial officer of the firm at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has the authority to represent the financial information utilized to establish the indirect cost rate for use under Agency contracts.

Ref. FHWA Directive 4470.1A available on line at: <a href="http://www.fhwa.dot.gov/legsregs/directives/orders/44701a.htm">http://www.fhwa.dot.gov/legsregs/directives/orders/44701a.htm</a>

O/H Certification; Nov 2010



#### Memorandum

December 19, 2013

TO:

Erik Jonson, WSDOT Contracts Administrator

MS 47323

FROM:

Martha Roach, Agreement Compliance Audit Manager

SUBJECT: SWCA, Inc. Indirect Cost Rate for fiscal year end December 31, 2012

We accept the audit work performed by Eide Bailly LLP related to SWCA's Indirect Cost Rate for the above referenced fiscal year. Eide Bailly audited SWCA's indirect costs for compliance with Federal Acquisition Regulations (FAR), Subpart 31; our office did not review their audit work.

Based on our acceptance of the CPA's audit, we are issuing this memo establishing SWCA's Indirect Cost Rate for fiscal year ending December 31, 2013 at 170.55% of direct labor (rate includes .35% Facilities Cost of Capital).

Costs billed to agreements will still be subject to audit of actual costs, based on the terms and conditions of the respective agreement.

This was not a cognizant review. Any other entity contracting with the firm is responsible for determining the acceptability of the Indirect Cost Rate.

If you have any questions, feel free to call me at (360) 705-7006 or via email at roachma@wsdot.wa.gov

Attachment

cc:

Steve McKerney

File

### Exhibit H Title VI Assurances

During the performance of this AGREEMENT, the CONSULTANT, for itself, its assignees, and successors in interest agrees as follows:

- 1. Compliance with Regulations: The CONSULTANT shall comply with the Regulations relative to non-discrimination in federally assisted programs of the AGENCY, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the "REGULATIONS"), which are herein incorporated by reference and made a part of this AGREEMENT.
- 2. Non-discrimination: The CONSULTANT, with regard to the work performed during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of sub-consultants, including procurement of materials and leases of equipment. The CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the REGULATIONS, including employment practices when the AGREEMENT covers a program set forth in Appendix B of the REGULATIONS.
- 3. Solicitations for Sub-consultants, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by the CONSULTANT for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-consultant or supplier shall be notified by the CONSULTANT of the CONSULTANT'S obligations under this AGREEMENT and the REGULATIONS relative to non-discrimination on the grounds of race, color, sex, or national origin.
- 4. Information and Reports: The CONSULTANT shall provide all information and reports required by the REGULATIONS or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by AGENCY, STATE or the Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such REGULATIONS, orders and instructions. Where any information required of a CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the AGENCY, STATE or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
- 5. Sanctions for Non-compliance: In the event of the CONSULTANT'S non-compliance with the non-discrimination provisions of this AGREEMENT, the AGENCY shall impose such AGREEMENT sanctions as it, the STATE or the FHWA may determine to be appropriate, including, but not limited to:
  - Withholding of payments to the CONSULTANT under the AGREEMENT until the CONSULTANT complies, and/or;
  - Cancellation, termination, or suspension of the AGREEMENT, in whole or in part

6. Incorporation of Provisions: The CONSULTANT shall include the provisions of paragraphs (1) through (5) in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the REGULATIONS, or directives issued pursuant thereto. The CONSULTANT shall take such action with respect to any sub-consultant or procurement as the AGENCY, STATE or FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however, that in the event a CONSULTANT becomes involved in, or is threatened with, litigation with a sub-consultant or supplier as a result of such direction, the CONSULTANT may request the AGENCY and the STATE enter into such litigation to protect the interests of the AGENCY and the STATE and, in addition, the CONSULTANT may request the United States enter into such litigation to protect the interests of the United States.

#### Exhibit I

#### Payment Upon Termination of Agreement By the Agency Other Than for Fault of the Consultant

(Refer to Agreement, Section IX)

#### **Lump Sum Contracts**

A final payment shall be made to the CONSULTANT which when added to any payments previously made shall total the same percentage of the Lump Sum Amount as the work completed at the time of termination is to the total work required for the PROJECT. In addition, the CONSULTANT shall be paid for any authorized extra work completed.

#### **Cost Plus Fixed Fee Contracts**

A final payment shall be made to the CONSULTANT which when added to any payments previously made, shall total the actual costs plus the same percentage of the fixed fee as the work completed at the time of termination is to the total work required for the Project. In addition, the CONSULTANT shall be paid for any authorized extra work completed.

#### **Specific Rates of Pay Contracts**

A final payment shall be made to the CONSULTANT for actual hours charged at the time of termination of this AGREEMENT plus any direct nonsalary costs incurred at the time of termination of this AGREEMENT.

#### **Cost Per Unit of Work Contracts**

A final payment shall be made to the CONSULTANT for actual units of work completed at the time of termination of this AGREEMENT.

## Exhibit J Alleged Consultant Design Error Procedures

The purpose of this exhibit is to establish a procedure to determine if a consultant's alleged design error is of a nature that exceeds the accepted standard of care. In addition, it will establish a uniform method for the resolution and/or cost recovery procedures in those instances where the agency believes it has suffered some material damage due to the alleged error by the consultant.

Step 1 – Potential Consultant Design Error(s) is Identified by Agency's Project Manager

At the first indication of potential consultant design error(s), the first step in the process is for the Agency's project manager to notify the Director of Public Works or Agency Engineer regarding the potential design error(s). For federally funded projects, the Region Highways and Local Programs Engineer should be informed and involved in these procedures. (Note: The Director of Public Works or Agency Engineer may appoint an agency staff person other than the project manager, who has not been as directly involved in the project, to be responsible for the remaining steps in these procedures.)

Step 2 - Project Manager Documents the Alleged Consultant Design Error(s)

After discussion of the alleged design error(s) and the magnitude of the alleged error(s), and with the Director of Public Works or Agency Engineer's concurrence, the project manager obtains more detailed documentation than is normally required on the project. Examples include: all decisions and descriptions of work; photographs, records of labor, materials and equipment.

Step 3 – Contact the Consultant Regarding the Alleged Design Error(s)

If it is determined that there is a need to proceed further, the next step in the process is for the project manager to contact the consultant regarding the alleged design error(s) and the magnitude of the alleged error(s). The project manager and other appropriate agency staff should represent the agency and the consultant should be represented by their project manger and any personnel (including sub-consultants) deemed appropriate for the alleged design error(s) issue.

Step 4 – Attempt to Resolve Alleged Design Error with Consultant

After the meeting(s) with the consultant have been completed regarding the consultant's alleged design error(s), there are three possible scenarios:

- It is determined via mutual agreement that there is not a consultant design error(s). If this is the case, then the process will not proceed beyond this point.
- It is determined via mutual agreement that a consultant design error(s) occurred. If this is the case, then the Director of Public Works or Agency Engineer, or their representatives, negotiate a settlement with the consultant. The settlement would be paid to the agency or the amount would be reduced from the consultant's agreement with the agency for the services on the project in which the design error took place. The agency is to provide H&LP, through the Region

- Local Programs Engineer, a summary of the settlement for review and to make adjustments, if any, as to how the settlement affects federal reimbursements. No further action is required.
- There is not a mutual agreement regarding the alleged consultant design error(s). The consultant may request that the alleged design error(s) issue be forwarded to the Director of Public Works or Agency Engineer for review. If the Director of Public Works or Agency Engineer, after review with their legal counsel, is not able to reach mutual agreement with the consultant, proceed to Step 5.

#### Step 5 – Forward Documents to Highways and Local Programs

For federally funded projects all available information, including costs, should be forwarded through the Region Highways and Local Programs Engineer to H&LP for their review and consultation with the FHWA. H&LP will meet with representatives of the agency and the consultant to review the alleged design error(s), and attempt to find a resolution to the issue. If necessary, H&LP will request assistance from the Attorney General's Office for legal interpretation. H&LP will also identify how the alleged error(s) affects eligibility of project costs for federal reimbursement.

- If mutual agreement is reached, the agency and consultant adjust the scope of work and costs to reflect the agreed upon resolution. H&LP, in consultation with FHWA, will identify the amount of federal participation in the agreed upon resolution of the issue.
- If mutual agreement is not reached, the agency and consultant may seek settlement by arbitration or by litigation.

## Exhibit K Consultant Claim Procedures

The purpose of this exhibit is to describe a procedure regarding claim(s) on a consultant agreement. The following procedures should only be utilized on consultant claims greater than \$1,000. If the consultant's claim(s) are a total of \$1,000 or less, it would not be cost effective to proceed through the outlined steps. It is suggested that the Director of Public Works or Agency Engineer negotiate a fair and reasonable price for the consultant's claim(s) that total \$1,000 or less.

This exhibit will outline the procedures to be followed by the consultant and the agency to consider a potential claim by the consultant.

Step 1 – Consultant Files a Claim with the Agency Project Manager

If the consultant determines that they were requested to perform additional services that were outside of the agreement's scope of work, they may be entitled to a claim. The first step that must be completed is the request for consideration of the claim to the Agency's project manager.

The consultant's claim must outline the following:

- Summation of hours by classification for each firm that is included in the claim;
- Any correspondence that directed the consultant to perform the additional work;
- Timeframe of the additional work that was outside of the project scope;
- Summary of direct labor dollars, overhead costs, profit and reimbursable costs associated with the additional work; and
- Explanation as to why the consultant believes the additional work was outside of the agreement scope of work.

Step 2 – Review by Agency Personnel Regarding the Consultant's Claim for Additional Compensation

After the consultant has completed step 1, the next step in the process is to forward the request to the Agency's project manager. The project manager will review the consultant's claim and will met with the Director of Public Works or Agency Engineer to determine if the Agency agrees with the claim. If the FHWA is participating in the project's funding, forward a copy of the consultant's claim and the Agency's recommendation for federal participation in the claim to the WSDOT Highways and Local Programs through the Region Local Programs Engineer. If the claim is not eligible for federal participation, payment will need to be from agency funds.

If the Agency project manager, Director of Public Works or Agency Engineer, WSDOT Highways and Local Programs (if applicable), and FHWA (if applicable) agree with the consultant's claim, send a request memo, including backup documentation to the consultant to either supplement the agreement, or create a new agreement for the claim. After the request has been approved, the Agency shall write the supplement and/or new agreement and pay the consultant the amount of the claim. Inform the consultant that the final payment for the agreement is subject to audit. No further action in needed regarding the claim procedures.

If the Agency does not agree with the consultant's claim, proceed to step 3 of the procedures.

#### Step 3 – Preparation of Support Documentation Regarding Consultant's Claim(s)

If the Agency does not agree with the consultant's claim, the project manager shall prepare a summary for the Director of Public Works or Agency Engineer that included the following:

- Copy of information supplied by the consultant regarding the claim;
- Agency's summation of hours by classification for each firm that should be included in the claim;
- Any correspondence that directed the consultant to perform the additional work;
- Agency's summary of direct labor dollars, overhead costs, profit and reimbursable costs associated with the additional work;
- Explanation regarding those areas in which the Agency does/does not agree with the consultant's claim(s);
- Explanation to describe what has been instituted to preclude future consultant claim(s); and
- Recommendations to resolve the claim.

### Step 4 – Director of Public Works or Agency Engineer Reviews Consultant Claim and Agency Documentation

The Director of Pubic Works or Agency Engineer shall review and administratively approve or disapprove the claim, or portions thereof, which may include getting Agency Council or Commission approval (as appropriate to agency dispute resolution procedures). If the project involves federal participation, obtain concurrence from WSDOT Highways and Local Programs and FHWA regarding final settlement of the claim. If the claim is not eligible for federal participation, payment will need to be from agency funds.

#### Step 5 – Informing Consultant of Decision Regarding the Claim

The Director of Public Works or Agency Engineer shall notify (in writing) the consultant of their final decision regarding the consultant's claim(s). Include the final dollar amount of the accepted claim (s) and rationale utilized for the decision.

#### Step 6 – Preparation of Supplement or New Agreement for the Consultant's Claim(s)

The agency shall write the supplement and/or new agreement and pay the consultant the amount of the claim. Inform the consultant that the final payment for the agreement is subject to audit.

# Exhibit M-1(a) Certification Of Consultant

	Project No.
	Local Agency
I hereby certify that I am Ronald G. Ohlsen	and duly authorized
representative of the firm of HDR Engineerin,g Inc.	whose address is
500 108th Ave. NE, Suite 1200, Bellevue, WA 98004-5549	and that neither I nor the above
firm I here represent has:	
(a) Employed or retained for a commission, percentage, br consideration, any firm or person (other than a bona fic above CONSULTANT) to solicit or secure the AGREE	le employee working solely for me or the
(b) Agreed, as an express or implied condition for obtaining services of any firm or person in connection with carry	
(c) Paid, or agreed to pay, to any firm, organization or persumption working solely for me or the above CONSULTANT) at consideration of any kind for, or in connection with, pre-except as hereby expressly stated (if any);	ny fee, contribution, donation, or
I acknowledge that this certificate is to be available to the W	Vashington State Department of
Transportation and the Federal Highway Administration, U.	S. Department of Transportation in
connection with this AGREEMENT involving participation	
subject to applicable State and Federal laws, both criminal a	and civil.
2/19/14	felle -
Date	Signature

# Exhibit M-1(b) Certification Of Agency Official

I hereby certify that I am the AGENCY Official of the Local Agency of	City of Marysville
Washington, and that the consulting firm or its representative has not bee express or implied condition in connection with obtaining or carrying out	•
(a) Employ or retain, or agree to employ to retain, any firm or person; or	r
(b) Pay, or agree to pay, to any firm, person, or organization, any fee, co consideration of any kind; except as hereby expressly stated (if any):	
I acknowledge that this certificate is to be available to the Washington St Transportation and the Federal Highway Administration, U.S. Department connection with this AGREEMENT involving participation of Federal-air subject to applicable State and Federal laws, both criminal and civil.	nt of Transportation, in
Date	Signaturo

#### Exhibit M-2

## Certification Regarding Debarment, Suspension, and Other Responsibility Matters-Primary Covered Transactions

- I. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
  - A. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
  - B. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission or fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of federal or state antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - C. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (I) (B). of this certification; and
  - D. Have not within a three (3) year period preceding this application/proposal had one or more public transactions (federal, state, or local) terminated for cause or default.
- II. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Consultant (Firm): HDR Engineerin,g Inc.	
2/19/14	kullh
(Date)	(Signature) President or Authorized Official of Consultant

# Exhibit M-3 Certification Regarding The Restrictions of The use of Federal Funds for Lobbying

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- 1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- 2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
  - This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Consultant (Firm):	HDR Engineerin,g Inc.	
Z/19/1	4	Rullh
(Date	)	(Signature) President or Authorized Official of Consultant

## Exhibit M-4 Certificate of Current Cost or Pricing Data

This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in section 15.401 of the Federal Acquisition Regulation (FAR) and required under FAR subsection 15.403-4) submitted, either actually or by specific identification in writing, to the contracting officer or to the contracting officer's representative in support of SR529-I5 Interchange Design \* are accurate, complete, and current as of January 23, 2014 \*\*. This certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between the offeror and the Government that are part of the proposal.

Firm	HDR Engineer	n,g Inc.
Name	Ronald G. Ohls	en Holph
Title	Senior Vice Pre	sident
Date of	fExecution***	February 18, 2014

- \* Identify the proposal, quotation, request for price adjustment, or other submission involved, giving the appropriate identifying number (e.g., RFP No.).
- \*\* Insert the day, month, and year when price negotiations were concluded and price agreement was reached.
- \*\*\* Insert the day, month, and year of signing, which should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.