


CITY OF MARYSVILLE AGENDA BILL

EXECUTIVE SUMMARY FOR ACTION

CITY COUNCIL MEETING DATE:

AGENDA ITEM:	
Professional Services Agreement with BergerABAM for 30% Design of the Grove Street Overcrossing Project	
PREPARED BY:	DIRECTOR APPROVAL:
Jeff Laycock, City Engineer	
DEPARTMENT:	
Engineering	
ATTACHMENTS:	
Professional Services Agreement	
BUDGET CODE:	AMOUNT:
30500030.563000, R1702	\$896,072
SUMMARY:	

The City advertised a Request for Proposals, asking firms to submit written proposals stating their qualifications to provide consultant services related to the Grove Street Overcrossing project. The project proposes to construct an overcrossing at the existing at-grade railroad crossing on Grove Street between Cedar Avenue and State Avenue. The City received a proposal from one firm, BergerABAM. Since we received only one proposal, the City proceeded with negotiation of scope and fee with BergerABAM. BergerABAM performed the railroad crossing study in 2015, which recommended the Grove Street Overcrossing project as the preferred option for a grade separate route across the railroad between State Route 528 (4th Street) and 88th Street NE. BergerABAM also designed the 156th St NE overcrossing at Interstate 5 and are currently designing the First Street Bypass project.

The attached Professional Services Agreement (PSA) will provide the City with preliminary (30%) design of the project, preparation of permit documents, and coordination with stakeholders including Burlington Northern Santa Fe and adjacent property owners. It is in the staff's opinion that the negotiated fee of \$896,072 is fair and consistent with industry standard.

The project design is partially funded by the State. The State's contribution is \$500,000, therefore the City's contribution towards this level of design effort is \$396,072.

RECOMMENDED ACTION:

Staff recommends that Council authorize the Mayor to sign and execute a Professional Services Agreement for 30% design of the Grove Street Overcrossing project between the City of Marysville and BergerABAM, Inc in the amount of \$896,072.00.

**PROFESSIONAL SERVICES AGREEMENT BETWEEN
CITY OF MARYSVILLE
AND BERGERABAM, INC.**

THIS AGREEMENT (“Agreement”) is made and entered into as of the date of the last signature below, by and between the City of Marysville, a Washington State municipal corporation (“City”), and BergerABAM, Inc., a corporation licensed/incorporated in Washington, organized under the laws of the state of Washington, located and doing business at 33301 Ninth Avenue South, Suite 300, Federal Way, Washington, 98003-2300 (“Consultant”).

In consideration of the terms, conditions, covenants, and performances contained herein, the parties hereto agree as follows:

1. SCOPE OF SERVICES. The Consultant shall provide the work and services described in the attached Exhibit A, incorporated herein by this reference (the “Services”). All services and materials necessary to accomplish the tasks outlined in the Scope of Services shall be provided by the Consultant unless noted otherwise in the Scope of Services or this Agreement. All such services shall be provided in accordance with the standards of the Consultant’s profession.

2. TERM. The term of this Agreement shall commence upon notice to proceed as issued by the City and shall terminate at midnight on June 30, 2019. The parties may extend the term of this Agreement by executing a written supplemental amendment.

3. COMPENSATION. The Consultant shall be paid by the City for Services rendered under this Agreement as described in Exhibit A and as provided in this section. In no event shall the compensation paid to Consultant under this Agreement exceed Eight Hundred Ninety Six Thousand Seventy Two Dollars (**\$896,072.00**) within the term of the Agreement, including extensions, without the written agreement of the Consultant and the City. Such payment shall be full compensation for the Services and for all labor, materials, supplies, equipment, incidentals, and any other expenses necessary for completion.

The Consultant shall submit a monthly invoice to the City for Services performed in the previous calendar month in a format acceptable to the City. The Consultant shall maintain time and expense records and provide them to the City upon request.

The City will pay timely submitted and approved invoices received before the 20th of each month within thirty (30) days of receipt.

4. CONSULTANT’S OBLIGATIONS.

4.1 MINOR CHANGES IN SCOPE. The Consultant agrees to accept minor changes,

amendments, or revisions to the scope of the Services, as may be required by the City, when such changes, amendments, or revisions will not have any impact on the cost of the Services or the proposed delivery schedule.

4.2 ADDITIONAL WORK. The City may desire to have the Consultant perform additional work or services which are not identified in the scope of the Services. If the parties agree to the performance of additional work or services, the parties will execute a written supplemental amendment detailing the additional work or services and compensation therefore. In no event will the Consultant be compensated for preparing proposals for additional work or services. In no event shall the Consultant begin work contemplated under a supplemental amendment until the supplemental amendment is fully executed by the parties.

4.3 WORK PRODUCT AND DOCUMENTS. The work product and all documents produced under this Agreement shall be furnished by the Consultant to the City, and upon completion of the Services shall become the property of the City, except that the Consultant may retain one copy of the work product and documents for its records. The Consultant will be responsible for the accuracy of the Services, the work product, and all documents produced under this Agreement, even though the Services have been accepted by the City.

In the event that the Consultant defaults on this Agreement or in the event that this Agreement is terminated prior to the completion of the Services or the time for completion, all work product and all documents and other materials produced under this Agreement, along with a summary of work as of the date of default or termination, shall become the property of the City. The summary of Services provided shall be prepared at no additional cost to the City. Upon request, the Consultant shall tender the work product, all documents, and the summary to the City within five (5) business days. Tender of said work product shall be a prerequisite to final payment under this Agreement.

The Consultant will not be held liable for reuse of work product or documents produced under this Agreement or modification of the work product or documents for any purpose other than those identified in this Agreement without the written authorization of the Consultant.

4.4 PUBLIC RECORDS ACT. Consultant acknowledges that the City is subject to the Public Records Act, chapter 42.56 RCW (the "PRA"). All records owned, used, or retained by the City are public records subject to disclosure unless exempt under the PRA, whether or not the records are in the possession or control of the City or Consultant. All exemptions to the PRA are narrowly construed.

a. **Confidential Information.** Any records provided to the City by the Consultant which contain information that the Consultant in good faith believes is not subject to disclosure under the PRA shall be marked "Confidential" and shall identify the specific information that the Consultant in good faith believes is not subject to disclosure

under the PRA and a citation to the statutory basis for non-disclosure.

b. **Responding to Public Records Requests.** The City shall exercise its sole legal judgment in responding to public records requests.

- (1) The City may rely upon the lack of notification from the Consultant in releasing any records that are not marked “Confidential.”
- (2) If records identified as “Confidential” by the Consultant are responsive to a PRA request, the City will seek to provide notice to Consultant at least ten (10) business days before the date on which the City anticipates releasing records. The City is under no obligation to assert any applicable exemption on behalf of the Consultant. The Consultant may seek, at its sole cost, an injunction preventing the release of information which it believes is protected. In no event will the City have any liability to Consultant for any failure of the City to provide notice prior to release.
- (3) If the City, in its sole legal judgment, believes that the Consultant possesses records that (1) are responsive to a PRA request and (2) were used by the City, the City will request the records from the Consultant. The Consultant will, within ten (10) business days:
 - i. Provide the records to the City in the manner requested by the City;
 - ii. Obtain a court injunction, in a lawsuit involving the requester, covering all, or any confidential portion of, the records and provide any records not subject to the court injunction; or
 - iii. Provide an affidavit, in a form acceptable to the City Attorney, specifying that the Consultant has made a diligent search and did not locate any requested documents.

c. **Indemnification.** In addition to its other indemnification and defense obligations under this Agreement, the Consultant shall indemnify and defend the City from and against any and all losses, penalties, fines, claims, demands, expenses (including, but not limited to, attorneys fees and litigation expenses), suits, judgments, or damages (collectively “Damages”) arising from or relating to any request for records related to this Agreement, to the extent such Damages are caused by action or inaction of the Consultant. This indemnification and defense obligation shall survive the expiration or termination of this Agreement.

4.5 MAINTENANCE/INSPECTION OF RECORDS. The Consultant shall maintain all books, records, documents, and other evidence pertaining to the costs and expenses allowable under this Agreement in accordance with generally accepted accounting practices. All such books and records required to be maintained by this Agreement shall be subject to inspection

and audit by representatives of the City and/or the Washington State Auditor at all reasonable times, and the Consultant shall afford the proper facilities for such inspection and audit. Representatives of the City and/or the Washington State Auditor may copy such books, accounts, and records where necessary to conduct or document an audit. The Consultant shall preserve and make available all such books of account and records for a period of three (3) years after final payment under this Agreement. In the event that any audit or inspection identifies any discrepancy in such financial records, the Consultant shall provide the City with appropriate clarification and/or financial adjustments within thirty (30) calendar days of notification of the discrepancy.

4.6 INDEMNITY.

a. **Indemnification and Hold Harmless.** The Consultant shall defend, indemnify, and hold the City, its officers, officials, employees, and volunteers harmless from any and all claims, injuries, damages, losses, or suits including attorney fees, arising out of or resulting from the acts, errors, or omissions of the Consultant in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

b. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the City, its officers, officials, employees, and volunteers, the Consultant's liability, including the duty and cost to defend, hereunder shall be only to the extent of the Consultant's negligence.

c. The provisions of this Section 4.6 shall survive the expiration or termination of this Agreement.

d. The Consultant hereby knowingly, intentionally, and voluntarily waives the immunity of the Industrial Insurance Act, Title 51 RCW, solely for the purposes of the indemnity contained in subpart "a" of this Section 4.6. This waiver has been mutually negotiated by the parties.

_____ (City Initials) _____ (Contractor Initials)

4.7 INSURANCE.

a. **Insurance Term.** The Consultant shall procure and maintain for the duration of the Agreement, insurance against claims for injuries to persons or damage to property which may arise from or in connection with the performance of the Services hereunder by the Consultant, its agents, representatives, or employees.

b. **No Limitation.** Consultant's maintenance of insurance as required by the Agreement shall not be construed to limit the liability of the Consultant to the coverage provided by such insurance, or otherwise limit the City's recourse to any remedy available

at law or in equity.

c. **Minimum Scope of Insurance.** Consultant shall obtain insurance of the types and coverage described below:

- (1) Automobile Liability insurance covering all owned, non-owned, hired, and leased vehicles. Coverage shall be written on Insurance Services Office (ISO) form CA 00 01 or a substitute form providing equivalent liability coverage.
- (2) Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, stop-gap independent contractors and personal injury and advertising injury. The City shall be named as an additional insured under the Consultant's Commercial General Liability insurance policy with respect to the Services performed for the City using an additional insured endorsement at least as broad as ISO CG 20 26.
- (3) Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.
- (4) Professional Liability insurance appropriate to the Consultant's profession.

d. **Minimum Amounts of Insurance.** Consultant shall maintain the following insurance limits:

- (1) Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.
- (2) Commercial General Liability insurance shall be written with limits no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate.
- (3) Professional Liability insurance shall be written with limits no less than \$1,000,000 per claim and \$1,000,000 policy aggregate limit.

e. **Other Insurance Provision.** The Consultant's Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance as respect the City. Any Insurance, self-insurance, or self-insured pool coverage maintained by the City shall be excess of the Consultant's insurance and shall not contribute with it.

f. **Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

g. **Verification of Coverage.** The Consultant shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not

necessarily limited to the additional insured endorsement, evidencing the insurance requirements of the Consultant before commencement of the Services.

h. **Notice of Cancellation.** The Consultant shall provide the City with written notice of any policy cancellation within two business days of the Consultant's receipt of such notice.

i. **Failure to Maintain Insurance.** Failure on the part of the Consultant to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five (5) business days notice to the Consultant to correct the breach, immediately terminate the Agreement or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Consultant from the City.

j. **Insurance to be Occurrence Basis.** Unless approved by the City all insurance policies shall be written on an "Occurrence" policy as opposed to a "Claims-made" policy. The City may require an extended reporting endorsement on any approved "Claims-made" policy. Professional liability insurance may be written on a "Claims-made" basis if it is maintained for a period of three (3) years following completion of the services.

k. **City Full Availability of Consultant Limits.** If the Consultant maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Consultant, irrespective of whether such limits maintained by the Consultant are greater than those required by this Agreement or whether any certificate of insurance furnished to the City evidences limits of liability lower than those maintained by the Consultant.

4.8 LEGAL RELATIONS. The Consultant shall comply with all federal, state, and local laws, regulations, and ordinances applicable to the Services to be performed under this Agreement. The Consultant represents that it and all employees assigned to perform any of the Services under this Agreement are in full compliance with the statutes of the State of Washington governing the Services and that all personnel to be assigned to the Services are fully qualified and properly licensed to perform the work to which they will be assigned.

4.9 INDEPENDENT CONTRACTOR.

a. The Consultant and the City understand and expressly agree that the Consultant is an independent contractor in the performance of each and every part of this Agreement. The Consultant expressly represents, warrants, and agrees that the Consultant's status as an independent contractor in the performance of the Services required under this Agreement is consistent with and meets the six-part independent

contractor test set forth in RCW 51.08.195 or as hereafter amended. The Consultant, as an independent contractor, assumes the entire responsibility for carrying out and accomplishing the Services required under this Agreement. The Consultant shall not make a claim of City employment and shall not claim any related employment benefits, social security, and/or retirement benefits.

b. The Consultant shall be solely responsible for paying all taxes, deductions, and assessments, including but not limited to federal income tax, FICA, social security tax, assessments for unemployment and industrial injury, and other deductions from income which may be required by law or assessed against either party as a result of this Agreement. In the event the City is assessed a tax or assessment as a result of this Agreement, the Consultant shall pay the same before it becomes due.

c. The City may, during the term of this Agreement, engage other independent contractors to perform the same or similar work to the Services that the Consultant performs under this Agreement.

d. Prior to commencement of Services, the Consultant shall obtain a business license from the City.

4.10 EMPLOYMENT.

a. The term “employee” or “employees” as used herein shall mean any officers, agents, or employee of the Consultant.

b. Any and all employees of the Consultant, while performing any Services under this Agreement, shall be considered employees of the Consultant only and not of the City. The Consultant shall be solely liable for: (1) any and all claims that may or might arise under the Workman’s Compensation Act, Title 51 RCW, on behalf of any said employees while performing any Services under this Agreement, and (2) any and all claims made by any third party as a consequence of any negligent act or omission on the part of the Consultant or its employees while performing any Services under this Agreement.

c. The Consultant represents, unless otherwise indicated below, that all employees of the Consultant that will perform any Services under this Agreement have never been retired from a Washington State retirement system, including but not limited to Teacher (TRS), School District (SERS), Public Employee (PERS), Public Safety (PSERS), law enforcement and fire fighters (LEOFF), Washington State Patrol (WSPRS), Judicial Retirement System (JRS), or otherwise. *(Please use initials to indicate No or Yes below.)*

_____ No, employees performing the Services have never been retired from a Washington state retirement system.

_____ Yes, employees performing the Services have been retired from a Washington state retirement system.

In the event the Consultant checks “no”, but an employee in fact was a retiree of a Washington State retirement system, and because of the misrepresentation the City is required to defend a claim by the Washington State retirement system, or to make contributions for or on account of the employee, or reimbursement to the Washington State retirement system for benefits paid, the Consultant hereby agrees to save, indemnify, defend and hold the City harmless from and against all expenses and costs, including reasonable attorney fees incurred in defending the claim of the Washington State retirement system and from all contributions paid or required to be paid, and for all reimbursement required to the Washington State retirement system. In the event the Consultant checks “yes” and affirms that an employee providing work has ever retired from a Washington State retirement system, every said employee shall be identified by the Consultant and such retirees shall provide the City with all information required by the City to report the employment with Consultant to the Department of Retirement Services of the State of Washington.

4.11 NONASSIGNABLE. Except as provided in Exhibit B, the Services to be provided by the Consultant shall not be assigned or subcontracted without the express written consent of the City.

4.12 SUBCONTRACTORS AND SUBCONSULTANTS.

a. The Consultant is responsible for all work or services performed by subcontractors or subconsultants pursuant to the terms of this Agreement.

b. The Consultant must verify that any subcontractors or subconsultants the Consultant directly hires meet the responsibility criteria for the Services. Verification that a subcontractor or subconsultant has proper license and bonding, if required by statute, must be included in the verification process. If the parties anticipate the use of subcontractors or subconsultants, the subcontractors or subconsultants are set forth in Exhibit B.

c. The Consultant may not substitute or add subcontractors or subconsultants without the written approval of the City.

d. All subcontractors or subconsultants shall have the same insurance coverage and limits as set forth in this Agreement and the Consultant shall provide verification of said insurance coverage.

4.13 CONFLICTS OF INTEREST. The Consultant agrees to and shall notify the City of any potential conflicts of interest in Consultant’s client base and shall obtain written permission from the City prior to providing services to third parties when a conflict or potential conflict of interest exists. If the City determines in its sole discretion that a conflict is irreconcilable, the City

reserves the right to terminate this Agreement.

4.14 CITY CONFIDENCES. The Consultant agrees to and will keep in strict confidence, and will not disclose, communicate, or advertise to third parties without specific prior written consent from the City in each instance, the confidences of the City or any information regarding the City or the Services provided to the City.

4.15 DISCRIMINATION PROHIBITED AND COMPLIANCE WITH EQUAL OPPORTUNITY LEGISLATION. The Consultant agrees to comply with equal opportunity employment and not to discriminate against any client, employee, or applicant for employment or for services because of race, creed, color, religion, national origin, marital status, sex, sexual orientation, age, or handicap except for a bona fide occupational qualification with regard, but not limited to, the following: employment upgrading; demotion or transfer; recruitment or any recruitment advertising; layoff or terminations; rates of pay or other forms of compensation; selection for training; or rendition of services. The Consultant further agrees to maintain (as appropriate) notices, posted in conspicuous places, setting forth its nondiscrimination obligations. The Consultant understands and agrees that if it violates this nondiscrimination provision, this Agreement may be terminated by the City, and further that the Consultant will be barred from performing any services for the City now or in the future, unless a showing is made satisfactory to the City that discriminatory practices have been terminated and that recurrence of such action is unlikely.

4.16 UNFAIR EMPLOYMENT PRACTICES. During the performance of this Agreement, the Consultant agrees to comply with RCW 49.60.180, prohibiting unfair employment practices.

5. CITY APPROVAL REQUIRED. Notwithstanding the Consultant's status as an independent contractor, the Services performed pursuant to this Agreement must meet the approval of the City, which shall not be unreasonably withheld if the Services have been completed in compliance with the Scope of Services and City requirements.

6. GENERAL TERMS.

6.1 NOTICES. Receipt of any notice shall be deemed effective three (3) calendar days after deposit of written notice in the U.S. mail with proper postage and address.

Notices to the City shall be sent to the following address:

CITY OF MARYSVILLE
Jeff Laycock, PE; City Engineer
80 Columbia Ave
Marysville, WA 98270

Notices to the Consultant shall be sent to the following address:

BERGERABAM, INC.

Ross French, PE

33301 Ninth Avenue South, Suite 300

Federal Way, WA 98003-2600

6.2 TERMINATION. The City may terminate this Agreement in whole or in part at any time by sending written notice to the Consultant. As per Section 6.1, the Consultant is deemed to have received the termination notice three (3) calendar days after deposit of the termination notice in the U.S. mail with proper postage and address. The termination notice is deemed effective seven (7) calendar days after it is deemed received by the Consultant.

If this Agreement is terminated by the City for its convenience, the City shall pay the Consultant for satisfactory Services performed through the date on which the termination is deemed effective in accordance with payment provisions of Section 3, unless otherwise specified in the termination notice. If the termination notice provides that the Consultant will not be compensated for Services performed after the termination notice is received, the City will have the discretion to reject payment for any Services performed after the date the termination notice is deemed received.

6.3 DISPUTES. The parties agree that, following reasonable attempts at negotiation and compromise, any unresolved dispute arising under this Agreement may be resolved by a mutually agreed-upon alternative dispute resolution of arbitration or mediation.

6.4 EXTENT OF AGREEMENT/MODIFICATION. This Agreement, together with exhibits, attachments, and addenda, represents the entire and integrated Agreement between the parties and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended, modified, or added to only by a written supplemental amendment properly signed by both parties.

6.5 SEVERABILITY.

a. If a court of competent jurisdiction holds any part, term, or provision of this Agreement to be illegal or invalid, in whole or in part, the validity of the remaining parts, terms, or provisions shall not be affected, and the parties' rights and obligations shall be construed and enforced as if the Agreement did not contain the particular part, term, or provision held to be invalid.

b. If any part, term, or provision of this Agreement is in direct conflict with any statutory provision of the State of Washington, that part, term, or provision shall be deemed inoperative and null and void insofar as it may conflict, and shall be deemed modified to conform to such statutory provision.

6.6 NONWAIVER. A waiver by either party of a breach by the other party of any covenant or condition of this Agreement shall not impair the right of the party not in default to avail itself of any subsequent breach thereof. Leniency, delay, or failure of either party to insist upon strict performance of any agreement, covenant, or condition of this Agreement, or to exercise any right herein given in any one or more instances, shall not be construed as a waiver or relinquishment of any such agreement, covenant, condition, or right.

6.7 FAIR MEANING. The terms of this Agreement shall be given their fair meaning and shall not be construed in favor of or against either party hereto because of authorship. This Agreement shall be deemed to have been drafted by both of the parties.

6.8 GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington.

6.9 VENUE. The venue for any action to enforce or interpret this Agreement shall lie in the Superior Court of Washington for Snohomish County, Washington.

6.10 COUNTERPARTS. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same Agreement.

6.11 AUTHORITY TO BIND PARTIES AND ENTER INTO AGREEMENT. The undersigned represent that they have full authority to enter into this Agreement and to bind the parties for and on behalf of the legal entities set forth herein.

DATED this _____ day of _____, 2018.

CITY OF MARYSVILLE

BERGERABAM, INC.

By _____
Jon Nehring, Mayor

By _____
Robert L. Fernandez
Its: Vice President

ATTEST/AUTHENTICATED:

, Deputy City Clerk

Approved as to form:

Jon Walker, City Attorney

EXHIBIT A

EXHIBIT A
SCOPE OF WORK FOR ENGINEERING SERVICES FOR
CITY OF MARYSVILLE GROVE STREET OVERCROSSING PROJECT

PROJECT BACKGROUND

The Burlington Northern/Santa Fe (BNSF) Railway tracks run between, and nearly parallel to, I-5 and State Avenue/SR 529 in the City of Marysville, Washington. The tracks impede the east-west flow of traffic into and through the downtown core, serving to compound what is already one of the city's most pressing transportation challenges: lack of sufficient vehicle-carrying capacity between I-5 and SR-9 to the east. An analysis of conceptual railroad grade separations was performed by the city to provide a qualitative review of the possible locations for a grade separation within the City of Marysville that lie north of the proposed State Route (SR) 529/Interstate 5 (I-5) Interchange and south of 88th Street, which also connects to I-5. Based on this qualitative review, a screening process was used to identify a preferred location. The preferred location is at 72nd Street NE, commonly referred to as Grove Street.

The purpose of this project is to provide a new bridge design over the railroad tracks while modifying but maintaining existing access to businesses along the approach roadways and minimizing right-of-way (ROW) and utility impacts. The bridge and roadway cross sections will be configured for at least two 11-foot traffic lanes, two 5-foot bicycle lanes, two 6-foot sidewalks, and two 2-foot traffic barriers for a total of 46 feet. It is anticipated that the bridge will be approximately 120 feet long, with approach fills extending an additional 500 feet on either side of the bridge. Project limits extend from west of the Cedar Avenue-Grove Street intersection on the west to east of the State Avenue-Grove Street intersection on the east.

During construction, traffic will be detoured away from the impacted section of Grove Street to nearby arterial streets to facilitate construction of the project.

Engineering for the Grove Street Overcrossing project will be accomplished in three phases.

Preconstruction – Phase 1

This initial phase will include topographic survey of the site; right-of-way feasibility support; geotechnical explorations; and analysis, discussion, and coordination related to the BNSF railroad tracks. The results of these tasks will provide the basis for the type, size, and location (TS&L) study in order to obtain a preferred bridge alternative. "CONSULTANT" and "SUBCONSULTANT" that are used in this scope of work both refer to work within the responsibility of the CONSULTANT.

Phase 1 will also include sufficient preliminary engineering of the preferred alternative to prepare preliminary bridge plans to be completed for submittal to BNSF for review and to prepare the project design report. Similarly, the preliminary engineering effort shall be sufficient to determine environmental and permitting documentation required for the project.

Once the preferred alternative has been selected and agreed to by the City and BNSF, the 30 percent design report and other design efforts will begin. A 30% submittal package including plans and cost estimate will be prepared as part of Phase 1.

For the purposes of this scope and fee estimate, only Phase 1 task have been assigned hours and hourly rates. Phase 2 hours and rates will be developed after the completion of Phase 1.

Preconstruction, Contract Documents – Phase 2

Completion of the design and preparation of construction documents (PS&E) is included as part of Construction, Contract Documents – Phase 2. The 30 percent complete design plans, specifications, and cost estimates (PS&E) completed in Phase 1 will be further developed to generate 60 percent, 90 percent, and ad-ready design plans, specifications, and cost estimate document submittals. Effort for these tasks may need to be adjusted once the scope of the project is defined at the completion of the TS&L revisions.

Construction Services – Phase 3

The scope for engineering services during the construction of the project is not included in the following scope of work and fee estimate, but will be provided as supplemental services after the completion of Phase 2.

PROJECT OBJECTIVES

After this project is constructed, this new crossing over the BNSF tracks will provide a bridge structure that will maintain the connection of Grove Street for vehicles, bicycles, and pedestrians. Other project objectives include the following.

- Safe access for roadway users
- Minimize impacts to local businesses, utilities and BNSF
- Compliance with all appropriate local, state, and federal environmental documentation and permitting requirements

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SCHEDULE

The following schedule for the Preconstruction – Phase 1 allows seven months to achieve both design concurrence and design approval on this project. A conceptual schedule for Preconstruction Phase 2 – Contract Documents has been included to show the project’s bid advertisement.

Notice to Proceed – Phase 1	1 October 2018
Site Survey, Base Mapping	1 October to 30 November 2018
Right-of-Way Feasibility Support	1 December to 14 February 2018
Geotechnical Evaluations	1 October to 31 December 2018
Railroad Coordination	14 November to 14 November 2018
Finalize Bridge TS&L Study	1 January to 14 February 2018
Traffic Analysis	30 November 2018 to 14 January 2019
Conceptual Signal Design	1 December 2018 to 14 January 2019
30 Percent PS&E and Design Report	15 January 2019 to 30 April 2019

Preconstruction Phase 2 – Contract Documents

Notice to Proceed – Phase 2	14 June 2019
Begin Environmental Documentation and Permitting	14 June 2019
Begin Right of Way Acquisition	14 June 2019
60 Percent PS&E	14 June 2019 to 31 December 2019
90 Percent PS&E	1 January 2020 to 14 June 2020
100 Percent PS&E	15 June 2020 to 14 September 2020
Final Bid Documents	15 September to 15 October 2020

Advertise for Bids **November 2020**

GENERAL PROJECT ASSUMPTIONS

The following list is included to confirm the understanding between City of Marysville Public Works (CITY) and the CONSULTANT and will be used to guide the work.

1. Throughout this scope of work, it is understood that CITY will provide the CONSULTANT with one set of consolidated review comments for each draft review round. The CONSULTANT shall then respond to the comments and incorporate the agreed-upon resolution into the final document(s).
2. It is anticipated that additional funding via federal and state grants will be necessary to complete the project.
3. The new roadway and bridge alignment will closely match the existing roadway alignment, and Grove Street will be closed between Cedar Avenue and State Avenue except for local access during construction. Traffic will be detoured to other arterial streets.

4. Stormwater treatment will be consistent with the Washington State Department of Ecology (Ecology) Stormwater Management Manual for Western Washington, February 2014.
5. Utility relocation and reconstruction plans will be prepared by the respective utility. Consultants will coordinate directly with the utility companies and the CITY.
6. CITY will obtain any needed rights-of-entry in a timely manner.
7. Additional support for vacations of existing ROW or boundary line adjustments (BLA) of resulting parcels is not included in this proposal. If additional work is required, this work will be billed as an extra to the contract as additional scope.
8. CITY will provide relevant plans, title report guarantees with supporting documents, studies, available existing mapping, and permitting histories for affected properties and identify known stakeholders.
9. Traffic analysis for the project has been completed by the CITY and it encompasses a time frame of 20 years beyond the anticipated year of opening, which is 2022. Should the traffic analysis need to be updated to meet federal funding or other requirements, the services may be provided by the CONSULTANT as a supplemental service.

TASK ORDER/PRECONSTRUCTION – PHASE 1

The work will be accomplished as follows with the following eight tasks.

- Task 1.0 Phase 1 Project Management
- Task 2.0 Survey and Base Mapping
- Task 3.0 Geotechnical Evaluation
- Task 4.0 Rail Crossing Analysis
- Task 5.0 Design Report
- Task 6.0 Traffic Analysis
- Task 7.0 Right of Way Feasibility Support
- Task 8.0 Environmental Documentation

TASK ORDER/PRECONSTRUCTION – PHASE 2

The work will be accomplished as follows with the following six tasks.

- Task 9.0 Phase 2 Project Management
- Task 10.0 Right of Way Acquisition Services
- Task 11.0 Environmental Permitting
- Task 12.0 Plans, Specifications, and Estimate
- Task 13.0 Ad, Bid, and Award
- Task 14.0 Management Reserve Fund for Optional Services

The following detailed task descriptions define the scope of work (and associated engineering fee estimate) for the authorized tasks addressing Preconstruction – Phase 1 of the project.

Work on tasks for Preconstruction Phase 2 – Contract Documents to complete the PS&E, will be discussed in a subsequent scope of services.

Work on subsequent tasks for Construction Services – Phase 3 will be authorized by additional amendments under this agreement.

TASK 1.0 –PHASE 1 PROJECT MANAGEMENT

1.1. Project Administration and Management (4 Months)

The CONSULTANT shall provide project management and communications between the CONSULTANT team and CITY.

The CONSULTANT shall perform project administration and management tasks as follows.

1. Mobilize staff and prepare subconsultant agreements.
2. Prepare and submit itemized monthly invoices, including a tabulation of hours expended, broken down by staff for each major task.
3. Prepare monthly progress reports summarizing the status of the budget, including monitoring the planned versus actual rate of expenditure for each major project task, identifying trends, and suggesting or taking corrective actions if necessary.
4. Prepare and update project schedule periodically as circumstances require or as requested by the CITY.
5. Prepare subconsultant agreements and perform ongoing subconsultant coordination.
6. Maintain all contract-required documentation.

Deliverable(s)

- Monthly progress report and invoice (one copy)
- Updated project schedules if required (one copy)
- Updated contract forms and certifications

1.2 Team Meetings and Coordination

The CONSULTANT shall facilitate an average of two internal project team coordination meetings per month. Meetings shall be approximately 1 hour in duration and shall be attended by an average of four CONSULTANT team members, including two of the CONSULTANT's project management and/or project engineering staff and two other CONSULTANT discipline specialists for bridge design, geotechnical, railroad design, etc., as required. CITY staff will not be required for these meetings.

The CONSULTANT shall facilitate an average of one meeting with CITY staff, utility representatives, and other stakeholders per month. The meetings shall be approximately 2 hours in duration and shall be attended by an average of three CONSULTANT team members. The CONSULTANT shall prepare an agenda and shall provide summary notes afterwards.

The CONSULTANT shall attend one public open house meeting and display supporting graphics of the project to the attendees.

The CONSULTANT shall attend one City Council Meeting and present supporting graphics of the project to the council.

Deliverable(s)

- Meeting summary notes for City of Marysville and other stakeholder meetings (one copy each meeting)
- Graphics to support the project at public open house and City Council meetings

1.3 Quality Assurance

The CONSULTANT shall provide quality assurance/quality control (QA/QC) for all design work in accordance with the Consultant’s QA/QC plan.

Deliverable(s)

- QA/QC plan and documentation for all design work will be made available to CITY upon request

TASK 2.0 – SURVEY AND BASE MAPPING

Scope of Project

This project will consist of horizontal and vertical control tied into CITY monumentation (and other local control; i.e., City of Marysville, WSDOT) and constrained to the Washington State Plane Coordinate system, North Zone, NAD 1983, as realized by City of Marysville for the horizontal datum and NAVD88 for vertical datum or originating from WSDOT GPS monuments located within Grove Street corridor and constrained to on Washington State Plane-North, NAD 83/91 for horizontal datum and NAVD 88 for vertical datum. Topographic survey will identify existing features of the following:

1. Full width of the Grove Street ROW beginning at a point approximately 100 feet west of Cedar Avenue extending east to 100 east of State Avenue (approximately 1,100 lf).
2. Full width ROW of BNSF railroad for approximately 500 linear feet on either side of the proposed bridge crossing, including any required permits for surveying within BNSF right of way.

Scope of Services

The scope of services generally consists of the SUBCONSULTANT providing existing conditions topographic survey; right of way document research, field work, and base mapping

preparation; including any traffic control and/or safety compliance requirements within City or State ROW. The SUBCONSULTANT shall use the data collected in this survey effort to develop base files ready for this project's design.

Assumption(s)

- Title Reports and Rights of Entry will be provided by the City of Marysville
- Traffic control, if required, to be provided by Law Enforcement Officers hired by SUBCONSULTANT
- SUBCONSULTANT is not responsible for the work or timeliness, including the railroad, from others.
- Property corners will not be set in conjunction with this survey
- SUBCONSULTANT personnel will not access any area that is unsafe
- Significant trees will be located within the Right of Way and are defined as existing trees over six inches in diameter as measured four feet above grade
- Measurement of tree driplines/canopies are not a part of these services

2.1 Topographic Survey of Grove Street

The topographic survey will portray above ground surface features, including but not limited to, fences, buildings, driveways, manholes, storm structures, water valves, fire hydrants, water meters, pavement limits, landscaping, retaining walls, trees greater than 6 inches DBH, utility vaults, utility poles, and utility pedestals. Also included will be the horizontal locations of the existing utilities as field located by the respective utility purveyor (CallBeforeYouDig) and/or a utility locating subconsultant (to be performed by SUBCONSULTANT) and utility invert elevations. The CONSULTANT shall coordinate utility locates with necessary subconsultants prior to the field survey. Following the initial topographic survey, additional topographic survey may be conducted following notice from the CITY to locate geotechnical borings and potholing (to be performed by SUBCONSULTANT at approximately 10 locations).

2.2 Topographic Survey of BNSF Railroad Corridor

The topographic survey will collect above-ground surface features, including, but not limited to, railroad tracks, fences, buildings, maintenance roads, manholes, storm catch basins, water valves, fire hydrants, water meters, pavement limits, landscaping, retaining walls, trees greater than 6 inches DBH, utility vaults, utility poles, and utility pedestals. Also included will be the horizontal locations of the existing utilities as field located by a utility locating subconsultant. The CONSULTANT shall coordinate utility locates with necessary subconsultants prior to the field survey. Following the initial topographic survey, additional topographic survey may be conducted following notice from the CITY to locate geotechnical borings. Following the initial topographic survey, additional topographic survey may be conducted following notice from the CITY to locate geotechnical borings.

2.3 ROW Survey

Available public records and state ROW plans will be compiled and researched to aide in the identification of the ROW lines affected by this project. This may be a very difficult task going forward as monumentation that ties this project's needed ROW lines may no longer exist

requiring additional research efforts and additional field measurement of local boundaries not contained within this scope. Complete title guarantees with supporting documents will be provided by CITY shall also be used to aid in the identification of the Right-of-Way lines and individual parcel lines. Monumentation local to the site will be tied into to the project control network to aide in locating the ROW in the project area.

2.4 Utility Locates and Potholing

SUBCONSULTANT and the utility purveyor (CallBeforeYouDig) shall provide field identification of primary (sanitary, storm, water, power, gas, telecommunications, etc.) publicly owned buried utilities with painted locate marks visible for the CONSULTANT's field topographic mapping efforts, including necessary traffic control and/or safety compliance requirements within the respective Railroad, City, and State ROW.

Subconsultant shall also provide potholing services of existing publicly owned buried utilities (approximately up to 10 locations), including necessary traffic control and/or safety compliance requirements within Railroad, City, or State ROW.

Assumption(s)

- CITY will pothole their own utilities. If necessary, PSE will pothole their own facilities.

Deliverable(s)

- Painted locate marks for primary publicly owned buried utilities
- Potholing of approximately 10 locations of publicly owned buried utilities

2.5 Creation of Base Map Files for Design

The CONSULTANT shall prepare 1"=20' (or similar) scale electronic base maps with 1-foot contour intervals using the topographic survey data, utility locate information, and potholing results for this project's scope. This work shall include the following.

1. Analysis of survey records, right-of-way plans, utility records (if available), etc.
2. Preparation of a design base file, including the centerline alignment along the entire corridor and the existing right-of-way with adjoining parcel lines along the corridor.
3. Existing features and utilities discovered in this effort.

Deliverable(s)

A file, developed in AutoCAD® Civil 3D® 2018 constrained to the CITY standards, including the information listed above, will be the deliverable. This file will serve as the basis of this project's design. An existing ground surface model in AutoCAD® Civil 3D® 2018 format will be provided as part of this effort. Photos, field notes, videos and sketches captured during this projects survey effort will also be included as part of the existing conditions documentation.

TASK 3.0 – GEOTECHNICAL EVALUATION

The purpose of this Work Element is to provide geotechnical engineering, design, and construction recommendations for the proposed 72nd St NE/Grove Street overcrossing. The

scope required to complete the geotechnical engineering recommendations for the retained fill, bridge, pavement, and infiltration is provided below. Additional geotechnical engineering recommendations will be developed for pavements and roadway widening fills.

Based on nearby borings the project site is believed to be underlain by estuarine (marine delta) and alluvial deposits. Explorations will be advanced to determine subsurface soil conditions and evaluate deep foundations support for the bridge, conventional mechanically stabilized earth (MSE) embankments, stormwater infiltration, embankment settlement, earthquake-induced hazards, and pavement design.

Based on direction from the CITY, geotechnical effort consistent with 30 percent structural design will be completed and only a draft geotechnical report will be prepared. The scope of services through final design is presented below. The level of effort in the fee estimate is consistent with the 30 percent structural design. Additional fee will be required to complete the PS&E level of effort.

3.1 Field Investigation

The SUBCONSULTANT will conduct a field reconnaissance to evaluate boring layout explorations for the preferred alternative. The SUBCONSULTANT will perform four borings to evaluate the subsurface conditions for the 72nd St NE/Grove Street overcrossing . These borings will be advanced with track-mounted equipment to depths of about 100 to 175 feet. The two borings for the bridge abutments will extend to a depth of approximately 175 feet, while the two borings for the approach walls will extend to a depth of 100 feet. The borings will be drilled using mud rotary techniques. Thin-walled relatively undisturbed soil samples will be obtained at representative depths from the borings. A piezometer and data-loggers will be installed in two of the borings to determine groundwater elevations as a function of time. The SUBCONSULTANT will prepare field logs of the borings, collect representative samples, and record SPT blow counts.

One boring will extend to a depth of approximately 20 feet for the purposes of evaluating infiltration potential at a potential infiltration pond location. This boring will be drilled using mud rotary techniques. Thin-walled relatively undisturbed soil samples will be obtained at representative depths from the borings.

Assumption(s)

- We propose to drill the borings by closing one full lane in Grove Street/72nd St. NE. All borings will be drilled at night between 7pm and 6 am. Traffic control services, including full time flaggers, are required and included in this scope. Given the numerous utilities on the alignment, we anticipate most borings will be drilled in the eastbound lane. in front of the Mutual Materials parking lot and in front of the Cedar and Grove Park and Ride. The infiltration boring will be drilled in the Silver Café parking lot. Traffic control services will be required for the borings in front of Mutual Materials, and at each location, a single lane may be closed between 7 pm and 6 am.

- Borings would be located more than 25 feet from the railroad so BNSF flagging is not required.
- All permits will be prepared by others as described in other work elements herein. All permit fees are included in other work elements described herein.
- The SUBCONSULTANT will not need to pay prevailing wages to subcontractors.
- We assume that drilling for all explorations will be accomplished with one mobilization of the drill rig.
- The borehole locations will be surveyed by others for layout and as-built conditions.
- The borings will be drilled during nighttime weekday hours. All borings will be drilled at night between 7 pm and 6 am. A day of drilling will include 12 hours of combined drilling/observation/travel time.
- 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. Asphalt cold patch will be used to backfill the borings to the ground surface.
- All drill locations are accessible with a truck-mounted drill rig.
- Vacuum excavation of the explorations will be required given the significant utilities along the alignment.
- Pilot infiltration tests will not be performed for the one infiltration boring. This work will be performed during Phase 2 of this project.
- 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).

Deliverable(s)

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

3.2 Laboratory Testing

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

Deliverable(s)

- Results of the testing will be included in the Geotechnical Engineering Report.

3.3 Geotechnical Analysis

Analysis and recommendations will be developed for deep foundations, embankment stability, embankment settlement, earthquake-induced hazards, pavement designs and construction considerations.

3.3.1 Subsurface Profiles

The SUBCONSULTANT will develop a cross-sections and subsurface profile using the results of the field investigation program. The subsurface profile will be used for engineering evaluations that will be performed in Work Element 3.3.

3.3.2 Earthquake Induced Hazards

The SUBCONSULTANT will use the borings 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. A code-based ground surface design response spectrum will be developed to correspond to the 1,000-year return period ground motion included in the WSDOT GDM/AASHTO LRFD.

Deliverable(s)

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

3.3.3 Axial Resistance of Deep Foundations

Based on our experience, deep foundations are likely the preferred foundation type for the proposed bridge structure. Using LRFD methodologies (WSDOT GDM and AASHTO LRFD), the SUBCONSULTANT will evaluate axial resistance for pile foundations for the service, strength, and extreme limit state for up to three pile/shaft diameters.

Axial pile resistance analyses will be performed by the SUBCONSULTANT to determine the compressive and uplift resistance of the up to 3 combinations of steel pipe pile or drilled shaft foundation types and diameters. The analyses will assume static, seismic, and post-seismic conditions. The SUBCONSULTANT 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.

Deliverable(s)

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

3.3.4 Lateral Pile Resistance Parameters

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

Assumption(s)

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

Deliverable(s)

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

3.3.5 Retaining Walls and Ground Improvement

The SUBCONSULTANT will evaluate the retaining wall options for the proposed overcrossing for temporary and permanent static conditions as well as seismic loading. For fill walls the SUBCONSULTANT will provide recommendations for cantilever concrete wall and mechanically stabilized earth wall earth pressures. The SUBCONSULTANT will evaluate the transverse slope stability of the proposed roadway retained fills for static and seismic conditions. As required to meet the stability requirements, the SUBCONSULTANT will evaluate alternative embankment options such as pile- or lightweight-fill supported embankment, surcharge, or staged construction techniques. Ground improvement options will be considered if the subsurface soil is subject to liquefaction during the design ground motion.

Assumption(s)

- 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.

Deliverable(s)

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

3.3.6 Embankment Settlement

The SUBCONSULTANT will evaluate static settlement of the retained fill embankments. Considering the site is potentially underlain by sand and silt, elastic settlements will be estimated. The consolidation test results, that will be performed using representative cohesive samples, will be used to estimate long term consolidation and secondary settlement of any cohesive soil encountered. The SUBCONSULTANT will evaluate the need for surcharges and/or the effects of including ground improvement or alternative methods to construct or support the roadway as discussed in Work Element 3.3.5.

3.3.7 Stormwater Infiltration

The SUBCONSULTANT will evaluate one candidate site to assess feasibility for potential infiltration. The assessment will be based on the Site Suitability Criteria (SSC) in Sec. 4-5.1 of the WSDOT Highway Runoff Manual (HRM). The SUBCONSULTANT will develop long-term infiltration rate for drainage design using the WSDOT "Detailed Approach", in accordance with Appendix 4D of the HRM. Using the empirical Massmann approach and the factors in this approach, the SUBCONSULTANT determine the long-term saturated hydraulic conductivity in accordance with the WSDOT Detailed Approach in Appendix 4D of the HRM.

3.3.8 Pavement

The SUBCONSULTANT would use the explorations performed at the site to estimate pavement and subgrade thickness using the WSDOT/AASHTO pavement design methods. Pavement subgrade conditions would be based on representative samples obtained soil borings.

Assumption(s)

- Traffic loading and frequency would be provided by other members of the design team.

3.3.9 Construction Considerations

The SUBCONSULTANT will address construction considerations consistent with the 30 percent design level. Construction issues that will be considered for: deep foundations, retaining walls, ground improvement, risk associated with the selected ground improvement techniques, staged construction for the various retaining walls, and risks/problems associated with drilled shaft and steel-pipe pile installations.

3.4 Participation in Design Meetings

The SUBCONSULTANT will allocate time for up to 3 design meetings to be held in Seattle, Washington. The purpose of these meetings would be to discuss embankment and retained fill alternatives and results of other geotechnical analyses.

Assumption(s)

- Each meeting will last about 4 hours, including travel time.
- Meeting minutes, if required, will be prepared by others.
- The Geotechnical project manager and a project engineer will attend the meetings.

3.5 Geotechnical Data and Engineering Report

The SUBCONSULTANT will prepare a draft and final Geotechnical Data and Engineering Report that presents the results of Work Elements 3.1 through 3.3. The report would contain subsurface data obtained including logs of all explorations, results of the laboratory testing, representative subsurface profile, and geotechnical analysis results and recommendations.

Deliverable(s)

- For 30 percent structural design: Draft Geotechnical Engineering Reports (2 hard copies and 1 electronic copy)

TASK 4.0 – RAIL CROSSING ANALYSIS

4.1 Rail Design Alternatives

The Consultant's team will use the right of way information obtained in Task 2, BNSF railroad standards, and other information to determine how BNSF may expand their facilities by adding a rail line adjacent to the single track in the vicinity of Grove Street. The Consultant's team will use this information to coordinate design of the bridge structure, but the initial plan is to clear span BNSF's existing right-of-way.

Deliverable(s)

- Track alignment exhibits for up to three alternatives BNSF is considering in the future.

4.2 Railroad Meetings and Coordination

The CONSULTANT shall schedule and facilitate up to six meetings with BNSF and CITY staff in order to discuss the proposed bridge structures identified during the TS&L process. The goal of these meetings is to obtain input and concurrence from BNSF regarding the preferred bridge alternative.

Deliverable(s)

- Agendas, attendance, and meeting minutes for up to six meetings with BNSF.

4.3 Railroad Memorandum of Understanding

The CONSULTANT shall prepare and obtain concurrence from BNSF regarding construction methods and construction and final clearances from BNSF facilities to the bridge structure and forward to CITY staff for their records. This will establish some of the design criteria to be finalized in Task 5.0 Design Report.

Deliverable(s)

- Railroad Memorandum of Understanding submitted to BNSF.

TASK 5.0 – DESIGN REPORT

This task initiates work on what will ultimately become construction plans for the project. These plans will become the basis for development of the final construction plans and will be used for the determination of ROW necessary for these improvements.

The CONSULTANT shall discuss options with the CITY and review and refine the recommended alignment as necessary to make the best fit for the proposed improvements. In particular, revisions shall be reviewed to minimize the length of the bridge and impacts at the approaches. The CONSULTANT shall discuss options with the CITY and review the recommended roadway cross section and configuration. Upon completion of the design report, the horizontal and vertical layout will be selected and general design parameters agreed to by the CONSULTANT and CITY. The final design report represents the end of Phase 1, and all major design issues should be resolved when it is submitted prior to the commencement of Phase 2.

5.1 Design Report Plans

The CONSULTANT shall address each of the following items in the design report plans submitted at the end of Phase 1 and continue more detailed development in the final plans phase.

5.1.1 Plans/Roadway Sections

1. Review/revise basic roadway sections, including lane widths, barriers, roadway ditch section, and cut and fill slopes.
2. Review clear zone safety requirements per WSDOT Design Manual to determine warrants for barrier placement. Provide impact attenuators for barrier, if applicable.
3. Review slope treatment for all cut and fills.
4. Prepare cover sheet and vicinity map for project.

5.1.2 Profile Grade

Layout preliminary profiles for the Grove Street including the bridge profile.

The profile grade shall be reviewed to account for

1. Stopping sight distance for applicable criteria.

2. Elevation of other roadway and driveway intersections and the elevation of the BNSF rail.
3. Driveway profiles for the determination of limits for reconstruction permits.
4. Entering sight distance at all locations along route.
5. Drainage system(s) and patterns.
6. Cover over existing utilities.
7. Retaining wall considerations.
8. Slopes/barrier.
9. Depth of fill required.

5.1.3 Cross Sections

1. Revise and compute earthwork quantity, cross sections, and plot catch point cut/fill lines on the plans.
2. Determine ROW, driveway reconstruction areas, and permanent and temporary slope easements that are needed.

5.1.4 Preliminary Signal and Illumination Design and Plans

The 30% signal and interconnect design submittal is assumed to be not included as part of this scope of work. It is assumed that the signal at State Avenue/Grove Street will likely need a temporary signal so that the permanent signal can be designed in the reconfigured position. If the traffic analysis reveals that a signal at Cedar Avenue/Grove Street is required, that signal will be designed in the next phase/scope of work. The interconnect tying in these two signals will also be designed in the next phase/scope of work.

DKS Associates, under a subconsultant agreement with BergerABAM, will provide the following.

The 30% illumination design submittal shall utilize the RP-8-00 American National Standard Practice for Roadway Lighting, and AGI32 lighting software to develop the light level analysis for the bridge corridor. The purpose of this analysis is to determine the recommended pole spacing and layout, and for coordination with the bridge designers. The results from these calculations will be incorporated into the design plans for the illumination. The lighting calculations will be updated and submitted to CITY for review with each design submittal.

The design will begin with a site visit to evaluate how the existing lighting circuits are laid out and determine where the power source is located. The preliminary plans will include 1"=20' scale (full size) plans showing the placement of each illumination pole in plan view. Conduits and junction boxes for the wiring will also be shown. Line loss calculations will be performed to the extent necessary to determine conduit size and alignment.

This scope of work also includes underdeck lighting along Grove Street from the Railroad west to Cedar Avenue to cover the potential for driveway access for some of the businesses.

This scope of work also includes a small portion of lighting for the pedestrian access to the west for potentially some additional pedestrian lighting to allow for a more gradual pedestrian grade adjacent to the roadway RR grade crossing.

Deliverable(s):

- Preliminary 30% submittal drawings, (Up to 15 sheets, one [1] electronic PDF of half-size drawings).
- Preliminary 30% cost estimate (one [1] electronic PDF, and one [1] electronic Excel version).
- Outline of special provisions expected to be used for the project (1 electronic copy in Word 2007, or newer)
- 30% AutoCAD files.

5.2 Storm Drainage Design

The storm drain design will be included in the 30 percent design plans. The drainage report will be submitted under separate cover. The preliminary engineering study will include significant coordination with CITY. The design and drainage report shall be prepared per the criteria of the Department of Ecology Stormwater Management Manual for Western Washington (February 2014) and the requirements of CITY and the Washington State Department of Transportation.

It is assumed that the most likely design is to convey the water off the bridge structure to the east and west side, and treat the six month storm flows in each direction and dissipate any additional flows within the existing right of way. To the west, the area east of Cedar Avenue on the south side of Grove Street east of Silver Cup Coffee may be sufficient to provide a bioinfiltration swale. To the east, the CONSULTANT proposes to drain the runoff to the existing city storm drain system. In order to determine the feasibility of this concept, the CONSULTANT shall perform the following.

1. Collect and review available paper and electronic as-builts and construction record drawings for existing stormwater facilities, including vaults, pipes, ditches, structures, and other features.
2. Collect and review available stormwater designs, studies, and reports from WSDOT and CITY, with an emphasis on the design criteria used for existing facilities within the project area.
3. Collect available topographic information to complete basin delineations for contributing runoff areas and produce a drainage area map showing each contributing area and the proposed path for stormwater runoff from the project area, at a scale no smaller than 1"=200'.
4. Prepare draft preliminary engineering report and submit to CITY for review.

5. Meet with CITY and other involved parties to review and discuss draft preliminary engineering report.
6. Revise draft preliminary engineering report to final version that recommends a preferred option.
7. Prepare draft drainage report based on preferred option established in preliminary engineering report for CITY approval.
8. Design project stormwater facilities, including pipes, inlets, catch basins, control structures, swales, ditches, outfall protection, and associated structures.

The Preliminary Engineering Report shall

1. Coordinate with applicable parties to determine preferred function and orientation of drainage facilities.
2. Prepare basin delineation map.
3. Identify various alternatives and considerations of each.
4. Evaluate feasibility of alternatives.
5. Determine preferred option.
6. Provide preliminary sizing calculations.
7. Prepare rough cost estimates.

The Drainage Report shall include:

1. Project overview
2. Detailed project description
3. Runoff/detention calculations
4. Water quality computations
5. Maintenance and operation of facilities

Items not included.

- Geotechnical evaluation as necessary for storm facility design
- Design of landscape and irrigation facilities affected by the project
- Construction permits associated with any utility improvements
- Design of temporary erosion control facilities
- Design of stormwater detention facilities

5.3 Pavement Design

A pavement section will be developed for the project and will include subgrade requirements, roadway surfacing type, and base and paving depths. This is to be done in conjunction with the Geotechnical Testing and Analysis task.

1. The CONSULTANT shall compile and review average daily traffic (ADT) and growth rate data provided by CITY.
2. The CONSULTANT shall use ADT and growth rate data to determine appropriate equivalent single axle loading (ESAL) and use soil design parameters determined previously in the geotechnical report to design a pavement section suitable for the site. The pavement will be designed using the "AASHTO Guide for the Design of Pavement Structures, 4th Edition with 1998 Supplement" methodology. The design will consider both Hot Mix Asphalt and Portland Cement Concrete full-depth alternative sections, each designed for a 30-year life.

5.4 Retaining Wall Evaluation and Layout

This task involves the review of geotechnical data for retaining wall system(s), engineering, constructability, and 30% design plans, determined to be needed during development of the roadway plan, profile, and cross sections. These will be assembled with clear presentation as to type, approximate length and height, and cost data in the TS&L report.

5.5 Bridge Design

The bridge design will be developed to the 30 percent level based on the preferred alternate developed in conjunction with Task 4.0 of this scope of services. The final TS&L study will be modified as needed and included as an appendix to the design report.

The TS&L study will include engineering and constructability for the following key elements.

1. Approach fills and walls
2. Bridge foundations
3. Bridge substructure
4. Bridge superstructure framing and type

The TS&L report will also include an outline of the bridge special provisions and an engineers estimate of probable bridge construction costs.

Deliverable(s)

- Draft TS&L Report. The TS&L report will include bridge plans, outline of general and project specific special provisions, and an engineers estimate of probable bridge construction costs.
- Final TS&L Report as an appendix to the design report incorporating CITY comments.

5.6 30% Submittal and Design Report (Permit Set Submittal)

The CONSULTANT shall

1. Review all work, geometric design, and design criteria developed to date to assure that it still complies with current design standards and the design criteria established during the preliminary engineering work
2. Document the full project scope
3. Document the design principles/standards used
4. Identify environmental documentation and permits required in consultation with CITY staff
5. Identify any criteria that cannot be met or would involve excessive costs
6. Prepare request for deviation for any design criteria that cannot be met
7. Assemble this material into a draft final design report and submit five copies of the document. Finalize the design report based on one round of CITY review and submit five copies of the final design report, including a complete set of 11- by 17-inch preliminary plans with each copy.

Deliverable(s)

- Draft Design Report
- Final Design Report incorporating CITY comments
- The preliminary PS&E plans (one-half size PDF)
- Preliminary construction cost estimate
- One PDF copy of the draft Drainage Report
- Basin delineation map
- Exhibits for environmental documents

TASK 6.0 – TRAFFIC ANALYSIS

DKS, a SUBCONSULTANT shall conduct an a analysis of the existing conditions, projected future traffic for the intersections of Cedar Avenue/Grove Street and State Avenue/Grove Street. As much as possible, the traffic analysis will use existing models and forecasted future traffic.

This scope of work will also include a signal warrant analysis for the intersection of Cedar Avenue/Grove Street. This signal warrant analysis will include Warrant Analysis for the following warrants as well as data collection to accommodate this evaluation:

- Warrant 1, Eight-Hour Vehicle Volume
- Warrant 2, Four-Hour Vehicle Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System

- Warrant 7, Crash Experience

Data collection necessary for this task will include the following elements. Data will be collected Tuesday – Thursday when school is in session.

- 24 hour turning movement traffic counts (for up to one day) on Cedar Avenue and Grove Street
- Two-Hour traffic turning movement (T – Th for up to one day) counts for Only PM period for up to two intersections. Total of up to 6 two-hour traffic turning movement counts. Collected data at the following three intersections with Grove Street: Cedar Avenue, State Avenue, and 43rd Avenue NE/ Alder Avenue.

The CITY will provide the CONSULTANT with the following information:

- Crash / accident history along the corridor and at the intersections of Cedar Avenue/ Grove Street and State Avenue/ Grove Street, along with the Grove Street corridor between these two intersections.
- Existing traffic signal timing and off sets (AM and PM) at the intersection of State Avenue/ Grove Street.
- As-builts for the signal at State Avenue/ Grove Street

The study area includes the area bounded by:

- Cedar Avenue/Grove Street intersection to 43rd Ave NE/Alder/Grove Street including 300' to each side of an intersection.

The traffic analysis will utilize Synchro and provide analysis of the following scenarios:

- Existing Year 2018 analysis (AM and PM peak periods)
- Future No-build 2037 analysis (AM and PM peak periods)
- Future Build 2037 analysis (AM and PM peak periods)
- Study years will match the I-5 to City Center Access Study
- No additional travel demand modeling will be required for this project

Deliverable(s):

- Design year peak-hour Synchro models for up to one build alternative
- Build alternatives traffic summary memorandum

TASK 7.0 – PRELIMINARY RIGHT OF WAY SERVICES

The right-of-way effort will be divided into two phases, with Task 7.0 occurring during Phase 1 and Task 10.0 occurring during Phase 2.

7.1 Record of Survey

A record of survey will be prepared to demonstrate for the public record the boundary opinions used as the basis for this project. Complete title report guarantees with supporting documents will be supplied by CITY to aide in the depiction of the current boundaries per deed.

Assumption(s)

- CITY will provide complete title report guarantees, with supporting documents for those parcels affected by this project through right of way acquisition.
- Prepare and record a Record of Survey (ROS) in the City of Marysville Auditor's Office.
- Monuments of any kind will not be set as part this effort.
- This effort assumes that enough monumentation still exists enough to determine the necessary boundaries.
- If additional work is required, this work will be billed as an extra to the contract as an additional scope.

7.2 Right-of-Way Feasibility Support

CONSULTANT and SUBCONSULTANT will offer support and provide recommendations to help minimize real property impacts as they relate to acquisition costs, relocation costs and the Right of Way schedule. Anticipated support services include attending CITY coordination meetings, meeting with adjacent property owners and/or their representatives as part of a vetting process, identifying real property rights (permanent or temporary) that may be required, preparing preliminary estimates of Acquisition and Relocation costs, and developing a preliminary ROW schedule.

Assumption(s)

- There will be limited involvement with BNSF regarding ROW since the bridge span will clear the rail improvements with no structural improvements (footings, etc) within the existing railway right of way limits.
- The cost estimate will be similar to a True Cost Estimate (TCE) as outlined in WSDOT's LAG Manual Section 25 – Right of Way Procedures and current relocation assistance cost allowances per federal and WSDOT guidelines.
- If additional work is required, this work will be billed as an extra to the contract as an additional scope.

Deliverable(s)

- Notes for three (3) design team meetings at CITY office.
- Notes for on-site meetings with each of the eight (8) common owners, except BNSF.
- One (1) Preliminary Right of Way Acquisition and Relocation Cost Estimate.
- One (1) Preliminary ROW Schedule.

7.3 Community Transit Coordination

In addition to right-of-way support described in subtask 7.2, CONSULTANT will offer support and provide recommendations to help minimize impacts to the Community Transit parking lot and facilities at the northwest corner of the project site as they relate to parking loss, relocation of bus stops, construction of accessible routes, and construction schedule. Anticipated support services include attending CITY coordination meetings, meeting with Community Transit representatives, identifying the project footprint that may be required, and developing a preliminary construction schedule.

Assumption(s)

- ADA-accessible ramps will be required on the north and south side of Grove Street to reach the bus stops in their current location. These ramps will need to be incorporated into the wall and hardscape design. An alternative to constructing ADA-accessible ramps is to move the bus stops to Cedar Avenue on the north side of Grove Street.
- If additional work is required, this work will be billed as an extra to the contract as an additional scope.

Deliverable(s)

- Notes for three (3) design team meetings at CITY office.
- Notes for on-site meeting with Community Transit.
- One (1) Preliminary Construction Schedule.

TASK 8.0 – ENVIRONMENTAL COMPLIANCE/PERMITTING REQUIREMENTS

8.1 NEPA Documentation and Coordination

The CONSULTANT will complete a NEPA Categorical Exclusion Documentation Form (CatEx Form) in support of a Categorical Exclusion (CE) for the project. The CONSULTANT will attend a NEPA kickoff meeting with WSDOT and the City to confirm the scope of the NEPA document and any additional studies that WSDOT may require for the project. The CONSULTANT will provide WSDOT staff with a draft version of the CatEx Form and technical studies. Two review cycles will be required to complete the NEPA CatEx form. As noted in the table below, it is anticipated that most environmental elements required for analysis will be addressed with a brief discussion in the WSDOT CatEx Form, with four exceptions. Supplemental documents anticipated are a cultural and historic resources, hazardous materials, noise and environmental justice technical memoranda. Additional studies may be required by WSDOT during the NEPA kickoff meeting and a supplemental scope and fee will be provided to address the required elements.

NEPA CatEx Environmental Elements	Proposed Documentation
Part 4 – Environmental Considerations	
1. Air Quality	CatEx Form
2. Critical/Sensitive Areas	CatEx Form
3. Cultural Resources/Historic Structures	Archaeology/Cultural Resource Technical Memorandum
4. Floodplains and Floodways	CatEx Form
5. Hazardous and Problem Waste	Hazardous Materials Technical Memorandum
6. Noise	Noise Analysis Report
7. Parks, Recreation Areas, Wildlife Refuges, Section 4(f)/6(f), etc.	CatEx Form
8. Resource Lands	CatEx Form
9. Rivers, Streams or Tidal Waters	CatEx Form
10. Tribal Lands	CatEx Form
11. Visual Quality	CatEx Form
12. Water Quality/Stormwater	CatEx Form
13. Commitments	CatEx Form
14. Environmental Justice	Environmental Justice Memorandum
Part 5 – Biological Assessment	CatEx Form

Environmental Justice Technical Memorandum

The environmental justice technical memorandum will document compliance with Executive Order 12898 according to WSDOT policies for NEPA compliance. The proposed project is likely to include a temporary shutdown of Grove Street and require a detour which triggers the environmental justice review. WSDOT environmental justice review procedures dictate that demographic data be collected from existing sources, (e.g., EJSCREEN and OSPI) within a half mile of the project area. Popular breakdown will conform to U.S. Department of Transportation (USDOT) definitions for “minority” and “low-income.” Methods for identification will include the review and analysis of a primary data source—the 2010 U.S. current Census—and a secondary data source, such as student demographic data made available for the local public school as published in the Washington State Report Card. Door-to-door visits in the area will not be conducted. This research will determine if any minority or low income populations reside within the project limits. Based on this research, the absence or presence of special population groups will be documented. If such groups are present in the project area, potential impacts, including the possibility for disproportionate adverse impacts on these populations will be evaluated consistent with Title VI of the Civil Rights Act of 1964. Mitigation measures for such impacts will be identified.

An environmental justice matrix will be completed and will be assembled with the above material into an environmental justice technical memorandum. The CONSULTANT will

finalize the technical memorandum based on one round of WSDOT and City review and will submit copies of the final environmental justice technical memorandum to WSDOT.

Hazardous Materials Technical Memorandum

The CONSULTANT will prepare a Hazardous Materials technical memorandum to support the CatEx form documentation. The project area is located adjacent to potential existing sources, including a car wash, gas station, and industrial areas. The CONSULTANT assumes that a low-level review will be required by WSDOT as part of the right-sized approach to hazardous materials assessment for NEPA documentation. The low-level review will consist of a database search and site visit to conduct a windshield review of the project area. The CONSULTANT will provide a draft hazardous material technical memorandum for WSDOT and City review. A final technical memorandum will be prepared after receipt of WSDOT and City comments on the draft memorandum.

8.2 Cultural and Historic Resource Technical Memorandum (Drayton Archaeology)

As funding for the project will be provided from federal grants administered by WSDOT's local programs division, documentation of compliance with Section 106 of the National Historic Preservation Act (Section 106) will be required. The CONSULTANT has contracted Drayton Archaeology (Drayton) to perform the cultural and historic resources assessment for this project. The CONSULTANT will complete the relevant sections of the CatEx form using Drayton's technical memorandum.

Drayton will coordinate with WSDOT staff to determine and document the area of potential effects (APE). The APE is the zone within which a project has the potential to affect historic properties, should any such properties exist. For planning purposes, it is assumed that the APE for this project will be confined to existing streets, proposed right-of-way acquisitions and laydown areas needed to construct the project. WSDOT has the responsibility for the final determination of the APE, in consultation with the Washington State Historic Preservation Officer (SHPO) at the Washington Department of Archaeology and Historic Preservation (DAHP). Drayton will assist the City in defining a preliminary APE and work plan for submittal to WSDOT and DAHP for approval prior to the field work. Following fieldwork, Drayton will prepare a cultural resources technical memorandum according to the guidelines provided by WSDOT and DAHP. It is expected that WSDOT staff will conduct consultation with the DAHP as necessary.

The Cultural Resources Technical Memorandum will include:

- A description of the project and applicable laws and regulations;
- A summary of the results of the background literature and records research;
- An assessment of the archaeological sensitivity of the APE, based on archival research;
- The methods used during the fieldwork and the results;
- A description of any cultural resources found;

- A summary assessment of potential effects to any identified resources based on our knowledge of the resource type, soil conditions, and extent to which the proposed project may affect the resource;
- Recommendations for completion of any additional cultural resources compliance obligations (e.g., archaeological monitoring) stemming from the results of the study;
- An Inadvertent Discovery Plan (IDP) summary of project procedures that should be followed in the event of an unanticipated discovery of buried cultural materials or human remains during construction;

The draft memorandum will include tables, maps, photographs, and other graphics as are needed to depict the scope of the study and results. Forms for any recorded resources will be included in an appendix to the memorandum summarizing the results of the project. The memorandum will reflect professional standards for format and content as expressed in the guidelines prepared by WSDOT and DAHP.

Upon receipt of any comments from the City and WSDOT, Drayton will make appropriate revisions in consultation with the CONSULTANT and an electronic version of a Final memorandum with the DAHP submittal form inserted. Drayton staff will be available for teleconferences with the City, WSDOT, DAHP, and interested Tribes, as necessary, regarding the project and the findings.

8.3 Noise Analysis Report (Michael Minor and Associates)

The proposed grade separation will change the vertical alignment of Grove Street and triggers a noise analysis under WSDOT guidance. The project may also change traffic volumes on Grove Street as it would be the only grade separation and provide better circulation for residents. The project is located in the vicinity of sensitive receptors (residential areas, place of worship) that could be affected by the changes in noise that result from changes in profile and traffic volumes. The CONSULTANT has contracted with Michael Minor and Associates (MMA) to perform the noise analysis and prepare a report for this project. The CONSULTANT will complete the relevant sections of the CatEx form using MMA's report.

MMA will work with the CONSULTANT, WSDOT and the City to determine the level of noise analysis required for this project. The proposed changes in vertical profile of Grove Street and adjacent receptors suggest that a Type 1 analysis may be necessary. Exact noise study requirements will be confirmed with WSDOT at the NEPA kickoff meeting. This scope of work assumes that the for Type 1 analysis, MMA will conduct a noise study for the project area based on the guidelines presented in the current Federal Aid Policy Guide, Sub-chapter H, Part 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and the WSDOT Traffic Noise Abatement Policy and Procedures (2011). Following the noise study, MMA will prepare a noise report that addresses noise impacts associated with construction activities and anticipated changes in traffic using the new overpass. Noise impacts and mitigation will be identified using current WSDOT policy. For residential areas, noise impacts occur if future traffic noise levels approach or exceed 66 dBA Leq during peak hours. The report will also have

sections specific to project construction and the short-term effects of construction on local noise and include local regulations and standard mitigation measures for noise during construction.

8.4 SEPA Documentation

The CONSULTANT will prepare a Washington State Environmental Policy Act (SEPA) checklist for compliance with SEPA and for the City to complete a threshold determination for the project. The CONSULTANT will hold a pre-application meeting with the City to discuss the SEPA review process and required documentation. Information and data developed for the NEPA documentation will be used to complete the SEPA checklist. The City is the lead agency for SEPA review and the Community Development Director is the Responsible Official. The CONSULTANT assumes that the SEPA submittal will include the following elements:

- Land Use Application Form
- SEPA Checklist
- Vicinity Map
- Project Drawings/Grading Plans
- Geotechnical Report (Shannon and Wilson)
- Drainage Report
- Cultural and Historic Resource Memorandum (Drayton)
- Title reports (provided by the City)

The CONSULTANT will provide a draft SEPA checklist for one round of review and comment by the City. The technical reports identified above will be reviewed by the City separately for the NEPA CatEx form and will not be included in the draft SEPA submittal. After receipt of City comments, The CONSULTANT will revise the checklist and provide the final SEPA package to the City.

Assumption(s)

- Project will require review by WSDOT local programs as a documented categorical exclusion under NEPA.
- A 2 hour NEPA kickoff meeting will occur at the City offices with the CONSULTANT, WSDOT Local Programs and City staff to discuss NEPA documentation requirements.
- WSDOT local programs staff will confirm that the only NEPA documentation needed to supplement the CatEx form is the cultural and historic technical memorandum, hazardous materials assessment, noise report and environmental justice memorandum.

If additional technical memoranda or documentation are required a scope amendment will be necessary.

- The WSDOT right-sized approach to hazardous materials review will require a low-level review, including a 4 hour site visit to conduct a windshield survey. A detailed site investigation for contamination is not required.
- The project will change the vertical profile of Grove Street and will require a noise study to analyze impacts on adjacent receptors. The noise will be conducted in accordance with WSDOT policy for Type 1 noise assessments.
- WSDOT will complete Section 106 consultation with DAHP. The CONSULTANT will provide the Cultural and Historic Resources memorandum to WSDOT to complete this task.
- WSDOT will complete formal consultation with the Native American tribes that may have an interest in the project and will prepare a letter of notification to the affected tribes.
- The CONSULTANT will provide up to 24 hours of routine coordination with WSDOT staff during the NEPA review period. This will include efforts to clarify information provided to WSDOT and review/respond to WSDOT comments.
- A 2 hour kickoff meeting will occur with City staff at city offices to review the submittal requirements and discuss the project permitting strategy.
- The City will prepare and publish a SEPA determination of non-significance for the project and no other technical analysis will be required. The City will be responsible for SEPA public notice and responses.
- The City will provide title reports for the subject properties adjacent to the project limits.
- The City will be responsible for all review fees.
- A biological assessment for threatened and endangered species (ESA) is not required. The CatEx form will be used for ESA documentation.
- There are no known biological resources (i.e., wetlands, streams, habitat) in the project area that would require a critical area review or permit from the City. A critical areas report will not be prepared for this project.

Deliverable(s)

- Draft and Final NEPA Documentation including: Categorical Exclusion form, Cultural Resources Memorandum, Hazardous Materials Memorandum, Noise Report and Environmental Justice Memorandum in electronic PDF format.
- Draft and Final SEPA Checklist in electronic PDF format.
- Final SEPA Submittal Package – 2 hard copies and 1 electronic copy (PDF).

GRAPHIC STANDARDS

All plans will be prepared in accordance with standard practices of the CITY. Sample plans and design standards will be provided by the CITY as a guide. Plans shall be prepared as follows.

- The horizontal scale for the full-size plans will be 1" = 20'.
- The plans will be completed in AutoCAD Version 2018.
- Line types and layers will be consistent with CITY CAD standards.
- Full-size plan sheets will be 22" x 34" on standard CITY title and border.
- Plan sheets utilizing topographic base mapping will utilize reference files so that the base map will remain as a single computer file. Each drawing will be a separate computer file with the base reference file as a separate CAD file.

SERVICES NOT INCLUDED

The following services are not a part of this Scope of Services. If the CONSULTANT and/or CITY chooses to add one or more of the following services to this Scope of Services, then this Agreement shall be modified in terms of an addition to the total compensation to be paid and an appropriate extension of time (as necessary).

- Permit applications, fees, or charges not mentioned above
- Property investigation, negotiations, and/or acquisition

CITY-PROVIDED REFERENCE MATERIALS

The following documents are to be provided by CITY.

- "As-built" plans as available
- Example plans and specifications
- A list of utilities and other agencies having jurisdiction in the project area
- Bid tabulations of previous projects as available
- CITY standard, boilerplate contract documents (contract, bid bond format, performance bond, etc.) for the bid documents in electronic and hard copy format
- CITY Standard Specifications and Details

CITY-PROVIDED PROJECT SERVICES

The following services will be provided by CITY.

- A list of utility franchises and other agencies having jurisdiction in the project area
- Coordination with the utility companies and other agencies
- Rights-of-entry, as necessary
- Other services as noted in the Scope of Work

DESIGN CRITERIA

All documents prepared shall be developed in accordance with the latest edition and amendments of the following, unless otherwise directed by CITY.

WSDOT Publications

- Standard Specifications for Road, Bridge, and Municipal Construction, English Edition (M41-10)
- Standard Plans for Road, Bridge, and Municipal Construction, English Edition (M21-01)
- Design Manual (M22-01)
- Bridge Design Manual, Volumes 1 and 2 (M23-50)
- Plans Preparation Manual (M22-31)
- Construction Manual
- WSDOT Local Agency Guidelines (LAG) Manual, Latest Edition
- Hydraulics Manual (M23-03)

AASHTO Publications

- AASHTO LRFD Bridge Design Specifications, Third Edition, 2017
- A Policy on Geometric Design of Highways and Streets (2011, 'Green Book')

U.S. Department of Transportation, Federal Highway Administration

- Manual on Uniform Traffic Control Devices for Streets and Highways

Other Publications/Design Guides

- City of Marysville Standard Specifications and Details
- Americans with Disability Act (ADA)
- Highway Research Board's Manual entitled, "Highway Capacity"
- Ecology, "Stormwater Manual for Western Washington February 2014"

- Standard drawings and sample documents provided by CITY and furnished to the CONSULTANT shall be used as a guide in all applicable cases
- BNSF Railway – Union Pacific Railroad, *Guidelines for Railroad Grade Separation Projects*

EXHIBIT E: Consultant Fee Determination

Analysis of Costs - BergerABAM Inc.

Direct Salary Cost (DSC)

PERSONNEL	Hours	Pay Rate	Cost
Principal @ Senior Project Manager Rate	96	\$79.39	\$ 7,621
Project Manager	608	\$65.58	39,873
Structural Engineer	692	\$69.69	48,227
Project Engineer	794	\$43.72	34,710
Civil Engineer	168	\$35.39	5,946
Environ. Scientist	232	\$46.17	10,711
Planner	92	\$37.26	3,428
Designer	132	\$44.79	5,912
Graphics/ CADD	366	\$37.56	13,747
Project Coord.	96	\$36.71	3,524
			-
Direct Salary Cost Total	3276	\$	173,698
Salary Escalation (see escalation tab)		\$	8,685

<u>Overhead Cost</u>	153.96%	of DSC	\$ 280,797
<u>Fixed Fee</u>	30.00%	of DSC	\$ 54,715

SUBTOTAL \$ 517,895

Reimbursables

Travel/Parking		\$	818
Reproduction/Postage			1,050
Computer/Special Equipment			-
Miscellaneous			

SUBTOTAL 1,868

BergerABAM SUBTOTAL 58.0% \$ 519,762

Subconsultants: (See Exhibit G)

Shannon and Wilson	24.0%	Participation	\$ 214,635.08
Universal Field Services	1.0%	Participation	\$ 9,146.37
DKS	7.1%	Participation	\$ 64,051.80
One Alliance	SBE DBE 5.3%	Participation	\$ 47,076.60
Drayton Archaeology	0.5%	Participation	\$ 4,400.00
Michael Minor and Associates	1.3%	Participation	\$ 12,000.00
	Total DBE 5.3%		

SUBCONSULTANTS SUBTOTAL \$ 351,310

Management Reserve \$ 25,000

GRAND TOTAL \$ 896,072

Prepared By _____

Date _____

BERGER/ABAM Engineers Inc. Blended Rates

Classification	Name	Base Wage Rate	% Participation	Blended Base Wage Rate
Principal @ Senior Project Man	Bob F	\$83.46	50%	\$79.39
	Brian C.	\$75.31	50%	
			100%	
Project Manager	Ross French	\$65.58	100%	\$65.58
			--	
			100%	
Structural Engineer	Chuck S.	\$83.46	20%	\$69.69
	Greg B.	\$66.25	80%	
			100%	
Project Engineer	Blake N.	\$38.22	50%	\$43.72
	Andrew D.	\$49.21	50%	
			100%	
Civil Engineer	Kyle G.	\$29.81	70%	\$35.39
	Jon C.	\$48.41	30%	
			100%	
Environ. Scientist	Dan R.	\$52.26	35%	\$46.17
	Grace R.	\$32.43	15%	
	Amber R.	\$52.48	35%	
	April R.	\$30.96	15%	
			100%	
Planner	Scott B.	\$37.26	100%	\$37.26
			--	
			100%	
Designer	John R.	\$44.78	70%	\$44.79
	Lee C.	\$44.81	30%	
			100%	
Graphics/ CADD	Jef B	\$57.45	5%	\$37.56
	Kim C	\$39.47	15%	
	Mark E	\$35.96	80%	
			100%	
Project Coord.	Kelly R	\$36.71	100%	\$36.71
	Nora B	\$36.49	--	
			100%	

EXHIBIT E
BERGER/ABAM Engineers Inc. Reimbursable Estimate

BergerABAM Inc.

REIMBURSABLES

	Units	at	Cost		
Travel/Parking					
Miles	1500	\$	0.545	\$	817.50
Lodging/Meals	0	\$	-	\$	-
					Travel Subtotal
					\$817.50
 Reproduction/Postage					
2 X 3 Boards	6	\$	50.00	\$	300.00
Allowance for Outside Reproduction	1	\$	500.00	\$	500.00
Courier	10	\$	25.00	\$	250.00
					Reproduction Subtotal
					\$1,050.00
 Computer/Special Equipment					
Computer Time				\$	-
					Computer Subtotal
				\$	-
 Miscellaneous					
Potholing	1	\$	-	\$	-
Drayton Archaeology				\$	4,400.00
Michael Minor and Associates				\$	12,000.00
					Miscellaneous Subtotal
					\$16,400.00

EXHIBIT E
Escalation Estimate

Grove Street Overcrossing Project
Phase 1 and 2 Design
Escalation Estimate - Contract Y-*** Supplement #*

Firm	%	Salary Year	Total DSC	1st Year % of Contract	2nd Year			3rd Year			4th Year			Total Escalation 2nd - 4th Years	Total Contract
					Escalation %	% of Contract	Escalation	Escalation %	% of Contract	Escalation	Escalation %	% of Contract	Escalation		
BergerABAM	5.00%	Jul - Jun	\$ 173,698.11	0%	5%	100%	\$ 8,684.91	5%	0%	\$ -	5%	0%	\$ -	\$ 8,684.91	100%
Shannon and Wil	#REF!	Jan - Dec	#REF!	100%	5%	0%	#REF!	5%	0%	#REF!	5%	0%	#REF!	#REF!	100%

BergerABAM Inc.

DESCRIPTION	Principal @										TOTAL	
	Senior Project	Project Manager	Structural Engineer	Project Engineer	Civil Engineer	Environ. Scientist	Planner	Designer	Graphics/CADD	Project Coord.		
	\$ 236.69	\$ 195.53	\$ 207.79	\$ 130.34	\$ 105.52	\$ 137.65	\$ 111.09	\$ 133.54	\$ 111.99	\$ 109.45		
1.0 PHASE 1 PROJECT MANAGEMENT												
1.1 Project Administration and Management (6 months)											0	
Mobilization and Subconsultant Agreements		8									12	20
Monthly Progress Reports	2	8									4	14
Monthly Invoicing		8									8	16
SubTotal	2	24	0	0	0	0	0	0	0	0	24	50
1.2 Team Meetings and Coordination (26 weeks, 22 meetings)												
Meeting Preparation		16	16	16					16		16	80
Mtg Attendance - City Staff (26 wks/8mtgs, 4 hr ea)	16	32	32	32		8						120
Mtg Attendance - Internal (26 wks/12 mtgs, 2 hr ea)		24	24	24		48	12					
Mtg Attendance - Open House, Board (2 mtgs, 5 hr ea)		10	10	10								
Meeting Notes		24	16	16							16	72
SubTotal	16	106	98	98	0	56	12	0	16		32	434
1.3 Quality Assurance												
QA/QC Plan	2	24	24	8							4	62
QA/QC Implementation - Phase 1	2	24	24	24							8	82
SubTotal	4	48	48	32	0	0	0	0	0	0	12	144
SUBTOTAL PHASE 1 HOURS	22	178	146	130	0	56	12	0	16	68	628	
Phase 1 - Cost Subtotals =	\$ 5,207	\$ 34,805	\$ 28,548	\$ 16,944	\$ -	\$ 5,909	\$ 1,266	\$ -	\$ 1,792	\$ 7,443	\$ 101,913.73	
												Rounded: \$ 101,900
2.0 SURVEY AND BASE MAPPING												
2.1 Topographic Survey of Grove Street											4	
SubTotal	0	0	0	4	0	0	0	0	0	0	0	4
2.3 Topographic Survey of BNSF Railroad Corridor											2	
SubTotal	0	0	0	2	0	0	0	0	0	0	0	2
2.4 ROW Survey											2	
SubTotal	0	0	0	2	0	0	0	0	0	0	0	2
2.5 Utility Locates and Potholing											0	
SubTotal	0	0	0	0	0	0	0	0	0	0	0	0
2.6 Creation of Base Map Files for Design											0	
Analyze Survey Records, ROW Plans, Utility Records												0
Prepare Design Base Map		4	4	4								12
SubTotal	0	4	4	4	0	0	0	0	0	0	0	12
TASK HOURS	0	4	4	12	0	0	0	0	0	0	0	20
Cost Subtotals=	\$ -	\$ 782	\$ 782	\$ 1,564	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,128

BergerABAM Inc.

DESCRIPTION	Principal @										TOTAL
	Senior Project	Project Manager	Structural Engineer	Project Engineer	Civil Engineer	Environ. Scientist	Planner	Designer	Graphics/CADD	Project Coord.	
	\$ 236.69	\$ 195.53	\$ 207.79	\$ 130.34	\$ 105.52	\$ 137.65	\$ 111.09	\$ 133.54	\$ 111.99	\$ 109.45	
											Rounded: \$ 3,100

3.0 GEOTECHNICAL EVALUATION

3.1 Initial Geotechnical Services

Obtain & Review Surface & Subsurface Information											0
Site Reconnaissance											0
Engineering Analysis											0
Technical Memo to Support Conceptual Design											0
Project Management and Meeting Attendance											0
<i>SubTotal</i>	0	0	0	0	0	0	0	0	0	0	0

3.2 Site Exploration and Engineering Analysis

Site Visit/Mark Borings											0
Exploration Plan											0
Log Test Borings											0
Select Samples for Testing, Revise Logs											0
Boring Log Production											0
Geologic Site Characterization											0
Prepare Subsurface Profile											0
Seismic Design Parameters		1	2	2							5
Embankment Recommendations & Settlement Est.			1	1							2
Deep Foundation Axial Load Charts			1	1							2
Foundation Bearing Resistances			1	1							2
Foundation Settlement Estimates			1	1							2
Construction Considerations and Specifications		4	4	2							10
<i>SubTotal</i>	0	5	10	8	0	0	0	0	0	0	23

3.3 Geotechnical Report

Draft Geotechnical Report	2	4	4	2							12
Final Geotechnical Report		2	2	2							6
<i>SubTotal</i>	2	6	6	4	0	0	0	0	0	0	18

TASK HOURS	2	11	16	12	0	0	0	0	0	0	41
Cost Subtotals=	\$ 473	\$ 2,151	\$ 3,129	\$ 1,564	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,317
											Rounded: \$ 7,300

4.0 RAIL CROSSING ANALYSIS

4.1 Rail Design Alternatives

	8	52	52	48				24			184
<i>SubTotal</i>	8	52	52	48	0	0	0	24	0	0	184

4.2 Railroad Meetings and Coordination (6 @ 4 hours each)

	12	36	36	16							100
<i>SubTotal</i>	12	36	36	16	0	0	0	0	0	0	100

4.3 Railroad Memorandum of Understanding

	4	24	24	16							68
<i>SubTotal</i>	4	24	24	16	0	0	0	0	0	0	68

TASK HOURS	24	112	112	80	0	0	0	24	0	0	352
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BergerABAM Inc. Labor Estimate

BergerABAM Inc.

DESCRIPTION	Principal @										TOTAL
	Senior Project	Project Manager	Structural Engineer	Project Engineer	Civil Engineer	Environ. Scientist	Planner	Designer	Graphics/CADD	Project Coord.	
	\$ 236.69	\$ 195.53	\$ 207.79	\$ 130.34	\$ 105.52	\$ 137.65	\$ 111.09	\$ 133.54	\$ 111.99	\$ 109.45	
Cost Subtotals=	\$ 5,681	\$ 21,900	\$ 21,900	\$ 10,427	\$ -	\$ -	\$ -	\$ 3,205	\$ -	\$ -	\$ 63,112
											Rounded: \$ 63,100

5.0 DESIGN REPORT

5.1 Design Report Figures

Plans/Roadway Sections	20	20	40	24			40	24		168	
Profile Grade	16	16	24	16			16	16		104	
Cross Sections	16	16	24	16			40	40		152	
Preliminary Signal and Illumination Design and Plans	8	0	8	8			0	2			
<i>SubTotal</i>	0	60	52	96	64	0	0	96	82	0	450

5.2 Storm Drainage Design

	16	8	60	60				40		184	
<i>SubTotal</i>	0	16	8	60	60	0	0	0	40	0	184

5.3 Pavement Design for Grove Street

	16		24	16						56	
<i>SubTotal</i>	0	16	0	24	16	0	0	0	0	0	56

5.4 Retaining Wall Evaluation and Layout

	0	9	50	76	0			0	68	0	203
<i>SubTotal</i>	0	9	50	76	0	0	0	0	68	0	203

5.5 Bridge Design

Cost Estimate	2	8	24	16						50	
Outline of Special Provisions	2	4	16	12						34	
Draft TS&L Report	12	24	40	32						108	
Comment Resolution	2	4	4	4						14	
Final TS&L Report (appendix to Design Report)	8	16	24	16						64	
<i>SubTotal</i>	26	70	184	156	0	0	0	0	88	0	524

5.6 30% Submittal and Design Report

30% Submittal and Review		20	20	20	12			12	12		4	96
Draft Design Report	12	48	52	56	8				40	8		224
Final Design Report	6	24	48	32	8				20	4		142
<i>SubTotal</i>	18	92	120	108	28	0	0	12	72	12		462

TASK HOURS	44	263	414	520	168	0	0	108	350	12	1879
Cost Subtotals=	\$ 10,414	\$ 51,425	\$ 80,950	\$ 67,777	\$ 17,727	\$ -	\$ -	\$ 14,423	\$ 39,197	\$ 1,313	\$ 283,226
											Rounded: \$ 283,200

6.0 TRAFFIC ANALYSIS

Traffic Counts	4			4							8
Traffic Modeling	8			8							16
Preliminary Lighting Design	8			8							16
<i>SubTotal</i>	0	20	0	20	0	0	0	0	0	0	40

BergerABAM Inc.

DESCRIPTION	Principal @										TOTAL
	Senior Project	Project Manager	Structural Engineer	Project Engineer	Civil Engineer	Environ. Scientist	Planner	Designer	Graphics/CADD	Project Coord.	
	\$ 236.69	\$ 195.53	\$ 207.79	\$ 130.34	\$ 105.52	\$ 137.65	\$ 111.09	\$ 133.54	\$ 111.99	\$ 109.45	
TASK HOURS	0	20	0	20	0	0	0	0	0	0	40
Cost Subtotals=	\$ -	\$ 3,911	\$ -	\$ 2,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,517
											Rounded: \$ 6,500
7.0 PRELIMINARY RIGHT OF WAY SERVICES											
7.1 Record of Survey		4		4							8
7.2 Right of Way Feasibility Support		8		8							16
7.3 Community Transit Coordination		8		8							16
SubTotal	0	20	0	20	0	0	0	0	0	0	40
TASK HOURS	0	20	0	20	0	0	0	0	0	0	40
Cost Subtotals=	\$ -	\$ 3,911	\$ -	\$ 2,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,517
											Rounded: \$ 6,500
8.0 ENVIRONMENTAL DOCUMENTATION											
8.1 NEPA Documentation and Coordination											0
NEPA Kickoff Meeting						16					
WSDOT NEPA Coordination	2					40					
Categorical Exclusion Form	2					40	40				8
Cultural Resources (Subcontractor Coordination)						8					
Hazardous Materials Memorandum						56					4
Environmental Justice Memorandum						8	40				4
Noise Analysis (Subcontractor Coordination)						8					
SubTotal	4	0	0	0	0	176	80	0	0	16	276
8.2 Cultural and Historic Resource Technical Memo						0	0				0
8.3 Noise Analysis Report						0	0				
8.4 SEPA Documentation											
Pre-Application Meeting						8					
Draft SEPA Checklist/Land Use Application Form	2					24	40				4
City Comment Review						8	4				
Final SEPA Checklist	1					12	8				2
SubTotal	0	0	0	0	0	0	0	0	0	0	0
TASK HOURS	4	0	0	0	0	176	80	0	0	16	276
Cost Subtotals=	\$ 947	\$ -	\$ -	\$ -	\$ -	\$ 41,658	\$ 18,935	\$ -	\$ -	\$ 3,787	\$ 65,327
											Rounded: \$ 65,300
PHASE 1 TOTAL	96	608	692	794	168	232	92	132	366	96	3276

City of Marysville 72nd St NE/Grove Street Overcrossing
Geotechnical Engineering - Shannon & Wilson

WORK ELEMENT	Principal in Charge	Associate	Senior Engineer I/II	Engineer IV	Drafting	Clerical	TOTAL HOURS	Total Amount
	Robert Mitchell	Kathryn Petek	Jason Funk/ Elizabeth Barnett	Sam Sideras				
	70	55	45	40	30	25		
WORK ELEMENT 1: Project Management								
1.1 Implement Quality Control Program		4		8			12	540
1.2 Monthly Progress Reports & Billing		6				12	18	630
Subtotal Work Element 1	0	10		8	0	12	30	1,170
WORK ELEMENT 3: Geotechnical Investigation & Reports								
3.1 Field Investigation							0	0
Subcontractor coordination and contracting				12			12	480
Locate explorations, utility clearance, and traffic control coordinat on		12		28			40	1,780
Drilling permit assistance		2		2	2		6	250
Sampling and Logging Borings	1	20		180			201	8,370
Review Samples and Laboratory Testing Plan	1	4	16				21	1,010
Finalize Boring Logs		1	6		4	4	15	545
							0	0
3.2 Laboratory Testing Plan (lab testing included in ODC sheet)		1		4			5	215
3.3 Geotechnical Analysis - Analysis consistent with 30 percent design							0	0
3.3.1 -Subsurface Profiles and cross sections		4	12		6		22	940
3.3.2 -Earthquake Induced Hazards	1	4		16			21	930
3.3.3 -Axial Resistance of Deep Foundations	1	6		16				1,040
3.3.4 -Lateral Pile Resistance Parameters	1	4		8				610
3.3.5 -Retaining Walls and Ground Improvement	2	8	24				34	1,660
3.3.6 -Embankment Settlement	1	6	12				19	940
3.3.7 -Infiltration		4		8			12	540
3.3.8 -Pavement	1	6		16			23	1,040
3.3.9 -Construction Considerations (surcharging, wick drains)	1	4					5	290
							0	0
3.4 Participation in Design Meetings (3 meetings)	6	12					18	1,080
							0	0
3.5 Geotechnical Data & Engineering Report							0	0
Draft	8	24	12	40	12	6	102	4,530
							0	0
3.3 Geotechnical Analysis - Analysis consistent with final PS&E design							0	0
3.3.1 -Subsurface Profiles and cross sections							0	0
3.3.2 -Earthquake Induced Hazards							0	0
3.3.3 -Axial Resistance of Deep Foundations							0	0
3.3.4 -Lateral Pile Resistance Parameters							0	0
3.3.5 -Retaining Walls and Ground Improvement							0	0
3.3.6 -Embankment Settlement							0	0
3.3.7 -Infiltration							0	0
3.3.8 -Pavement							0	0
3.3.9 -Construction Considerations (surcharging, wick drains)							0	0
							0	0
3.4 Participation in Design Meetings							0	0
							0	0
3.5 Geotechnical Data & Engineering Report							0	0
Respond to Comments							0	0
Final							0	0
Subtotal Work Element 3	24	122	82	330	24	10	592	26,250
GRAND TOTAL HOURS	24	132	82	338	24	22	622	27,420

The cost to complete analysis and reports consistent with final PS&E design are not included in this scope of services and will be provided in a future contract supplement

Direct Labor Cost	\$27,420
Labor Escalation	
3% for Y2019 (70% effort)	576
3% for Y2020 (30% effort)	501
Adjust Direct Labor Cost	28,497
Overhead Rate-2016 provision Rate @	
192.13%	54,751
Total adjusted Direct Labor & Overhead Cost	83,248
Fixed Fee @ Direct Labor Cost	
30%	8,549
Total Labor Cost	91,797

Direct Expenses:	
Drilling Subcontract (5 truck borings)	62,869
Other ODC and Subcontracts	47,605
S&W Laboratory Testing	8,020
Copies/Printing	80
Mileage	687
Permits (street use) (by others)	0
Total Direct Expenses	122,838
S&W Total	\$214,635

Direct Expenses				
Item	Unit	Unit Price	Qty.	Sub-Total Expenses
Truck Borings (5 ea)				
Driller Mob.	ea	\$1,000	1	\$ 1,000
Night Surcharge	day	\$500	15	\$ 7,500
DOE NOI (well log)	ea	\$50	2	\$ 100
DOE NOI (boring log)	ea	\$25	3	\$ 75
Driller Per Diem	day	\$350	15	\$ 5,250
Set-up/Clean up	hr	\$300	16	\$ 4,800
Casing time	hr	\$200		\$ -
Mud Rotary 0 to 50ft	ft	\$25	220	\$ 5,500
Mud Rotary 50 to 100ft	ft	\$30	200	\$ 6,000
Mud Rotary 100 to 200ft	ft	\$35	150	\$ 5,250
Extra Samples	ea	\$50	16	\$ 800
Osterberg Samples	ea	\$100	4	\$ 400
Borehole sealing and patch	ft	\$10	220	\$ 2,200
VWP construction	ft	\$15.0	350	\$ 5,250
12-inch flush completion	ea	\$350	2	\$ 700
Standby/Safety Meetings	hr	\$250	4	\$ 1,000
IDW disposal (soil cuttings & Mud)	drum	\$125	60	\$ 7,500
Concrete Core	ea	\$250	4	\$ 1,000
Air knife/vacuum excavate borings	hr	\$275	12	\$ 3,300
<i>Drilling Sales Tax (9.1%)</i>				\$ 5,244
Drilling Subtotal				\$ 62,869
Private Utility Locate	hr	\$125	5	\$ 625
Flagger Technician (Night Hrs)	hr	\$54	150	\$ 8,100
Traffic Control Supervisor (Night hrs)	hr	\$77	150	\$ 11,475
Traffic Control Labor Mobilization	hr	\$55	15	\$ 825
Truck Charge Mobilization	day	\$125	15	\$ 1,875
Traffic control standard signs	day	\$185	15	\$ 2,775
Additional signs (18 each)	day	\$162	15	\$ 2,430
Channelizers w/light (130 ea)	day	\$650	15	\$ 9,750
Arrow board (2 boards)	wk	\$600	3	\$ 1,800
Light tower for flagging (2 each)	day	\$250	15	\$ 3,750
Traffic Control Plans	ea	\$225	4	\$ 900
Vibrating wire piezometers	ea	\$850	2	\$ 1,700
Dataloggers	ea	\$800	2	\$ 1,600
Permit fees (by others)	ea			\$ -
Other Field Costs Subtotal				\$ 47,605
Soil Laboratory Testing				
Sample Jars	box	\$10	20	\$ 200
Water Content	ea	\$16	140	\$ 2,240
Atterberg Limits	ea	\$175	6	\$ 1,050
Sieve and hydrometer Analysis	ea	\$230	15	\$ 3,450
Soil activity/corrosion	ea	\$270	4	\$ 1,080
Soil Laboratory Testing Subtotal				\$ 8,020
B&W Copies/Reproduction	ea	\$0.10	300	\$30.00
Color Copies/Reproduction	ea	\$0.50	100	\$50.00
Mileage	mi	\$0.545	1260	\$686.70
Other ODC Subtotal				\$ 767
2018 to 2019 Escalation on ODC				3% \$ 3,578
ODC Total				\$ 122,838

EXHIBIT G-1: Subconsultant Fee Determination

Subconsultant Analysis of Costs - One Alliance, Inc.

Direct Salary Cost (DSC)

PERSONNEL	Hours	Pay Rate	Cost
Principal	9	\$ 204.00	\$ 1,836
PM	28	141.00	3,948
Asst PM	5	90.00	450
CADD 5	102	115.00	11,730
CADD 4	80	105.00	8,400
Tech 4	80	105.00	8,400
Tech 2	80	77.00	6,160
Direct Salary Cost Total			384 \$ 40,924
Salary Escalation (see escalation tab)		N/A	
<u>Overhead Cost</u>	<u>N/A</u>	of DSC	
<u>Fixed Fee</u>	<u>N/A</u>	of DSC	
			SUBTOTAL \$ 40,924
<u>Reimbursables</u>			
Travel/Parking		\$	153
Reproduction/Postage			-
Computer/Special Equipment			-
Miscellaneous			6,000
			SUBTOTAL \$ 6,153
			TOTAL \$ 47,077

EXHIBIT G
One Alliance
Professional Services Reimbursable Estimate

Hanson Professional Services, Inc.

Reimbursables

	Units	at	Cost	
Travel/Parking				
Miles	280	\$	0.545	\$ 152.60
Parking				\$ -
Travel Subtotal				\$152.60
 Reproduction/Postage				
				\$ -
				\$ -
				\$ -
Reproduction Subtotal				\$0.00
 Computer/Special Equipment				
				\$ -
				\$ -
Computer Subtotal				\$ -
 Miscellaneous				
Traffic Control				\$ 2,000.00
Underground Utility Locates				\$ 4,000.00
				\$ -
Miscellaneous Subtotal				\$6,000.00

One Alliance Labor Estimate

One Alliance

DESCRIPTION	Principal \$ 204.00	PM \$ 141.00	Asst PM \$ 90.00	CADD 5 \$ 115.00	CADD 4 \$ 105.00	Tech 4 \$ 105.00	Tech 2 \$ 77.00	TOTAL
2.0 SURVEY AND BASE MAPPING								
2.1 Topographic Survey of Grove Street	1	4	1	4		48	48	106
<i>SubTotal</i>	1	4	1	4	0	48	48	106
2.2 Topographic Survey of BNSF Railroad Corridor	2	4	1	8		16	16	47
<i>SubTotal</i>	2	4	1	8	0	16	16	47
2.3 ROW Survey	2	8	1	80				91
<i>SubTotal</i>	2	8	1	80	0	0	0	91
2.4 Utility Locates and Potholing	2	4	1	2		16	16	41
<i>SubTotal</i>	2	4	1	2	0	16	16	41
2.5 Creation of Base Map Files for Design								
Analyze Survey Records, Right of Way Plans, Utility Records								0
Prepare Design Base Map	2	8	1	8	80			99
<i>SubTotal</i>	2	8	1	8	80	0	0	99
TASK HOURS	9	28	5	102	80	80	80	384
Cost Subtotals=	\$ 1,836	\$ 3,948	\$ 450	\$ 11,730	\$ 8,400	\$ 8,400	\$ 6,160	\$ 40,924
							Rounded:	\$ 40,900
TOTAL PROJECT HOURS	9	28	5	102	80	80	80	384

EXHIBIT G-1: Subconsultant Fee Determination

Subconsultant Analysis of Costs - Universal Field Services

Direct Salary Cost (DSC)

PERSONNEL	Hours	Pay Rate	Cost
Project Oversight - QA/QC	29	\$ 58.17	\$ 1,687
Project Manager	41	50.00	2,050
Acquisition Specialist	8	42.00	336
Relocation Specialist	6	44.00	264
Title/Escrow Specialist	2	32.00	64
Sr Admin Specialist	2	28.00	56
		-	
Direct Salary Cost Total	86		\$ 4,457
Salary Escalation (see escalation tab)			\$ -

<u>Overhead Cost</u>	<u>58.48%</u>	of DSC	\$ 2,606
<u>Fixed Fee</u>	<u>30.00%</u>	of DSC	1,337

SUBTOTAL \$ 8,400

Reimbursables

Travel/Parking		\$	496
Reproduction/Postage			250
Computer/Special Equipment			-
Miscellaneous			-
			-
SUBTOTAL		\$	746

TOTAL \$ 9,146

Universal Field Services Labor Estimate

Universal Field Services

DESCRIPTION	Project			SR.			TOTAL
	Oversight - QA/QC	Project Manager	Acquisition	Relocation	Administration	Sr Admin Specialist	
	\$ 58.17	\$ 50.00	\$ 42.00	\$ 44.00	\$ 32.00	\$ 28.00	

7.0 PRELIMINARY RIGHT OF WAY SERVICES

7.1 Record of Survey							0
7.2 Right of Way Feasibility Support	29	41	8	6	2	2	88
7.3 Community Transit Coordination							0
<i>SubTotal</i>	29	41	8	6	2	2	88
TASK HOURS	29	41	8	6	2	2	88
Cost Subtotals=	\$ 1,687	\$ 2,050	\$ 336	\$ 264	\$ 64	\$ 64	\$ 4,465

TOTAL PROJECT HOURS 29 41 8 6 2 2 88

DKS Associates
Grove Street Overcrossing
Fee Estimate for Engineering Services

8/15/2018

Position	Project Manager	Senior Operations Engineer	Senior Design Engineer	Project Engineer	Engineering Intern	CAD, GIS, Admin, Graphics	Overhead	
							Fee	173.21%
Billing Grade	36	23	20	16	12	Tech O		10%
Direct Hourly Rate	\$ 64.31	\$ 49.74	\$ 44.52	\$ 37.93	\$ 31.33	\$ 31.33	Total Labor Cost by Task	Total Costs by Task
Total Billing Rate	\$ 193.27	\$ 149.48	\$ 133.80	\$ 113.99	\$ 94.16	\$ 94.16		
STEP 1:								
Task 6: Traffic Analysis								
Task 6.1 Project Management								
Project Management Plan	3	1	1					
Invoice Preparation	5					5		
Progress Reports	5							
Project Schedule	5							
Contract Documentation	2					3		
Monthly Coordination Meetings (up to 6)		6		6				
Coordination Meeting Notes				5		5		
<i>Total Hours by Staff Role</i>	20	7	1	11	0	13	\$ 2,503.42	\$ 7,523.55
Task 6.2 Data Collection & Warrant Analysis								
Review the Data Provided by the City (Counts/ Crash/ ...)	1	2	4	16	2			
Conduct Warrant Analysis for Grove St/ Cedar Ave	1	4	8	22	4			
Warrant Analysis Summary			1	8	2			
<i>Total Hours by Staff Role</i>	2	6	13	46	8	0	\$ 3,001.24	\$ 9,019.66
Task 6.3 Synchro Analysis								
Existing Condition Synchro Analysis of Grove St/State Ave & Grove St/ Cedar Ave	1	1	4	16				
Future Visum Volumes & Design Year No-Build Syncho Model		1	6	16				
Design Year Build Syncho Model		1	4	12				
Draft Traffic Memo for the Synchro Analysis		1	8	20		4		
Respond to CITY Comments on Draft Traffic Operations Memo		4		8				
Final Traffic Operations Memo	2	4		8		1		
<i>Total Hours by Staff Role</i>	3	12	22	80	0	5	\$ 4,960.30	\$ 14,907.24
STEP 1 TOTAL HOURS	25	25	36	137	8	18		
STEP 1 LABOR COSTS	\$ 1,607.75	\$ 1,243.50	\$ 1,602.72	\$ 5,196.41	\$ 250.64	\$ 563.94	\$ 10,464.96	\$ 31,450.45
TASK 5.4: SIGNAL & ILLUMINATION Conceptual DESIGN								
Task 5.4.1 Project Management								
Invoice Preparation	5					5		
Progress Reports	5							
Project Schedule	5							
Contract Documentation	2					3		
Monthly Coordination Meetings (up to 5)			5	5				
Coordination Meeting Notes				5		5		
<i>Total Hours by Staff Role</i>	17		5	10	0	13	45	\$ 6,318.54
Task 5.4.3 Conceptual Signal & Illumination Design								
Signal Plan Sheets (up to 2)	1		3	5	10	10		
Signal Detail Sheets (up to 2)	1		2	4	4	3		
Illumination Plan Sheets (up to 2)	2		4	10	12	12		
Illumination Design Sheets (up to 2 sheets)	1		2	4	8	6		
Illumination AGI32 Analysis	4		8	24	24			
Signal and Illumination Bid Item Cost Estimates	1		4	8	12			
Special Provision Outline	1		2	4	4			
<i>Total Hours by Staff Role</i>	11	0	25	59	74	31	200	\$ 22,082.81
STEP 2 TOTAL HOURS	28	0	30	69	74	44		
STEP 2 LABOR COSTS	\$ 1,800.68	\$ -	\$ 1,335.60	\$ 2,617.17	\$ 2,318.42	\$ 1,378.52	\$ 9,450.39	\$ 28,401.35
SUMMARY								
Labor Costs								
Task 6: Traffic Analysis								\$ 10,464.96
TASK 5.4: SIGNAL & ILLUMINATION Conceptual DESIGN								\$ 9,450.39
Overhead Costs (at 173.21%)								\$ 34,495.38
Expenses								
Traffic Data Collection (up to 2 intersections)								\$ 2,500.00
Travel - Parking & Milage								\$ 1,200.00
Document Production								\$ 500.00
Fee (at 10%)								\$ 5,441.07
TOTAL COST (Labor + Overhead + Expenses + Fee)								\$ 64,051.80