CITY OF TUMWATER
SERVICE PROVIDER AGREEMENT

Deschutes Valley Trail

THIS AGREEMENT is made and entered into in duplicate this _____ day of _____, 2025, by and between the CITY OF TUMWATER, a Washington municipal corporation, hereinafter referred to as the "CITY", and SCJ Alliance, a Washington corporation, hereinafter referred to as the "SERVICE PROVIDER".

WITNESSETH:

WHEREAS, the CITY desires to have certain services and/or tasks performed as set forth below requiring specialized skills and other supportive capabilities; and

WHEREAS, sufficient CITY resources are not available to provide such services; and

WHEREAS, the SERVICE PROVIDER represents that the SERVICE PROVIDER is qualified and possesses sufficient skills and the necessary capabilities, including technical expertise, where required, to perform the services and/or tasks set forth in this Agreement.

NOW, THEREFORE, in consideration of the terms, conditions, covenants, and performance contained herein, the parties hereto agree as follows:

1. SCOPE OF SERVICES.

The SERVICE PROVIDER shall perform such services and accomplish such tasks, including the furnishing of all materials and equipment necessary for full performance thereof, as are identified and designated as SERVICE PROVIDER responsibilities throughout this Agreement and as detailed in Exhibit "A" Scope of Services attached hereto and incorporated herein (the "Project").

2. TERM.

The Project shall begin no earlier than October 1, 2025, and shall be completed no later than December 31, 2027. This Agreement may be extended for additional periods of time upon mutual written agreement of the parties.

3. TERMINATION.

Prior to the expiration of the Term, this Agreement may be terminated immediately, with or without cause, by the CITY.

4. COMPENSATION AND METHOD OF PAYMENT.

A. Payments for services provided hereunder shall be made following the performance of such services, unless otherwise permitted by law and approved in writing by the CITY.

B. No payment shall be made for any service rendered by the SERVICE PROVIDER except for services identified and set forth in this Agreement.

C. The CITY shall pay the SERVICE PROVIDER for work performed under this Agreement a total sum not to exceed **Two-Million Four-Hundred-Ninety-Nine-Thousand Two-Hundred-Sixteen and 93/100 Dollars** ($2,499,216.93) as follows: **As reflected in Exhibit "A".**

D. Upon execution of this Agreement, the SERVICE PROVIDER must submit IRS Form W-9 Request for Taxpayer Identification Number (TIN) and Certification unless a current Form W-9 is already on file with the CITY.

E. The SERVICE PROVIDER shall submit an invoice to the CITY for services rendered during the contract period. The CITY shall initiate authorization for payment after receipt of said invoice and shall make payment to the SERVICE PROVIDER within approximately thirty (30) days thereafter.

F. When subcontracting services or purchasing goods from third parties, as identified and approved in this Agreement, the SERVICE PROVIDER must submit written documentation establishing that the goods and/or services have been provided and the third party has been paid in order to receive payment for such goods and/or services.

G. Invoices may be submitted immediately following performance of services, but in no event shall an invoice be submitted more than twenty (20) business days following the end of the contract term or the end of the calendar year, whichever is earlier.

5. INDEPENDENT CONTRACTOR RELATIONSHIP.

A. The parties intend that an independent contractor relationship will be created by this Agreement. Subject to paragraphs herein, the implementation of services pursuant to this Agreement will lie solely within the

discretion of the SERVICE PROVIDER. No agent, employee, servant or representative of the SERVICE PROVIDER shall be deemed to be an employee, agent, servant or representative of the CITY for any purpose, and the employees of the SERVICE PROVIDER are not entitled to any of the benefits the CITY provides for its employees. The SERVICE PROVIDER will be solely and entirely responsible for its acts and for the acts of its agents, employees, servants, subcontractors or representatives during the performance of this Agreement.

B. In the performance of the services herein contemplated the SERVICE PROVIDER is an independent contractor with the authority to control and direct the performance of the details of the work; however, the results of the work contemplated herein must meet the approval of the CITY and shall be subject to the CITY'S general rights of inspection and review to secure the satisfactory completion thereof.

C. As an independent contractor, the SERVICE PROVIDER shall be responsible for the reporting and payment of all applicable local, state, and federal taxes.

D. It is recognized that the SERVICE PROVIDER may or will be performing services during the Term for other parties; provided, however, that such performance of other services shall not conflict with or interfere with the SERVICE PROVIDER'S ability to perform the services. The SERVICE PROVIDER agrees to resolve any such conflicts of interest in favor of the CITY.

6. SERVICE PROVIDER EMPLOYEES/AGENTS.

The CITY may at its sole discretion require the SERVICE PROVIDER to remove an employee, agent or servant from employment on this Project. The SERVICE PROVIDER may, however, employ that individual on other non-CITY related projects.

7. HOLD HARMLESS INDEMNIFICATION.

A. SERVICE PROVIDER Indemnification. The SERVICE PROVIDER agrees to indemnify, defend and hold the CITY, its elected officials, officers, employees, agents, and volunteers harmless from any and all claims, demands, losses, actions and liabilities (including costs and all attorney fees) to or by any and all persons or entities, including, without limitation, their respective agents, licensees, or representatives, arising from, resulting from, or connected with this Agreement to the extent caused by the negligent acts, errors or omissions of the SERVICE PROVIDER, its partners, shareholders, agents, employees, or by the SERVICE PROVIDER'S breach of this Agreement. The SERVICE PROVIDER expressly waives any immunity that may be granted to it under the Washington State Industrial Insurance Act, Title 51 RCW. The SERVICE PROVIDER'S

indemnification shall not be limited in any way by any limitation on the amount of damages, compensation or benefits payable to or by any third party under workers' compensation acts, disability benefit acts or any other benefit acts or programs. This waiver has been mutually negotiated by the parties.

B. CITY Indemnification. The CITY agrees to indemnify, defend and hold the SERVICE PROVIDER, its officers, directors, shareholders, partners, employees, and agents harmless from any and all claims, demands, losses, actions and liabilities (including costs and attorney fees) to or by any and all persons or entities, including without limitation, their respective agents, licensees, or representatives, arising from, resulting from or connected with this Agreement to the extent solely caused by the negligent acts, errors, or omissions of the CITY, its employees or agents. No liability shall attach to the CITY by reason of entering into this Agreement except as expressly provided herein.

C. Survival. The provisions of this Section shall survive the expiration or termination of this Agreement with respect to any event occurring prior to such expiration or termination.

8. INSURANCE.

A. The SERVICE PROVIDER 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 work hereunder by the SERVICE PROVIDER, their agents, representatives, employees or subcontractors.

B. The SERVICE PROVIDER shall provide a Certificate of Insurance evidencing:

1. Automobile Liability insurance with limits no less than $1,000,000 combined single limit per accident for bodily injury and property damage.

2. Commercial General Liability insurance written on an occurrence basis with limits no less than $2,000,000 combined single limit per occurrence and $2,000,000 aggregate for personal injury, bodily injury and property damage. Coverage shall include but not be limited to: blanket contractual; products/completed operations; broad form property damage; explosion, collapse and underground (XCU) if applicable; and employer's liability.

3. Professional Liability insurance written on a claims made basis with limits of no less than $2,000,000 per claim, and $2,000,000 policy aggregate limit.

C. The CITY shall be named as an additional insured on the insurance policy, except professional liability, as respect to work performed by or on behalf of the SERVICE PROVIDER and a copy of the endorsement naming the CITY as additional insured shall be attached to the Certificate of Insurance. The CITY reserves the right to request certified copies of any required policies.

D. The SERVICE PROVIDER'S insurance shall contain a clause stating that coverage shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

E. Any payment of deductible or self-insured retention shall be the sole responsibility of the SERVICE PROVIDER.

F. The SERVICE PROVIDER'S insurance shall be primary insurance as respect to the CITY and the CITY shall be given written notice of any cancellation, suspension or material change in coverage within two (2) business days of SERVICE PROVIDER'S receipt of such notice.

9. TREATMENT OF ASSETS.

Title to all property furnished by the CITY shall remain in the name of the CITY and the CITY shall become the owner of the work product and other documents, if any, prepared by the SERVICE PROVIDER pursuant to this Agreement.

10. COMPLIANCE WITH LAWS.

A. The SERVICE PROVIDER, in the performance of this Agreement, shall comply with all applicable federal, state or local laws and ordinances, including being licensed to do business in the City of Tumwater by obtaining a Tumwater business license and any additional regulations for licensing, certification and operation of facilities, programs and accreditation, and licensing of individuals, and any other standards or criteria as described in this Agreement to assure quality of services.

B. The SERVICE PROVIDER specifically agrees to pay any applicable CITY business and occupation (B&O) taxes which may be due on account of this Agreement.

11. NONDISCRIMINATION.

A. The CITY is an equal opportunity employer.

B. Nondiscrimination in Employment. In the performance of this Agreement, the SERVICE PROVIDER will not discriminate against any employee or applicant for employment on the grounds of race, creed, religion, color, national origin, citizenship or immigration status, families with children status, sex, marital status, honorably discharged veteran or military status, the presence of any sensory, mental, or physical disability or the use of a trained dog guide or service animal by a person with a disability, sexual orientation, genetic information, age or other basis prohibited by state or federal law; provided that the prohibition against discrimination in employment because of disability shall not apply if the particular disability prevents the proper performance of the particular worker involved. Such action shall include, but not be limited to: employment, upgrading, demotion or transfers, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and programs for training including apprenticeships.

C. Nondiscrimination in Services. The SERVICE PROVIDER will not discriminate against any recipient of any services or benefits provided for in this Agreement on the grounds of race, creed, religion, color, national origin, citizenship or immigration status, families with children status, sex, marital status, honorably discharged veteran or military status, the presence of any sensory, mental or physical disability or the use of a trained dog guide or service animal by a person with a disability, sexual orientation, genetic information, age or other basis prohibited by state or federal law. "Race" is inclusive of traits historically associated or perceived to be associated with race including, but not limited to, hair texture and protective hairstyles. For purposes of this subsection, "protective hairstyles" includes, but is not limited to, such hairstyles as afros, braids, locks, and twists. It is not an unfair practice when a distinction or differential treatment on the basis of citizenship or immigration status is authorized by federal or state law, regulation, rule or government contract.

D. If any assignment and/or subcontract have been authorized by the CITY, said assignment or subcontract shall include appropriate safeguards against discrimination. The SERVICE PROVIDER shall take such action as may be required to ensure full compliance with the provisions in the immediately preceding paragraphs herein.

E. Nondiscrimination in Contractors / Subcontractors. The City of Tumwater, in accordance with RCW 49.60.530 requires all covered contractors or subcontractors to actively pursue a diverse and inclusive workforce. Contractors and subcontractors are prohibited from all forms of discrimination listed in RCW 49.60.530.

F. Nondiscrimination in Benefits. **The provisions of this subsection are only applicable to contracts with an estimated value of**

$50,000 or more. Pursuant to Tumwater Municipal Code (TMC) Chapter 3.46, the SERVICE PROVIDER shall provide employee benefits or an equivalent sum to the domestic partners of their employees involved in the SERVICE PROVIDER'S operations applicable to this Agreement if such benefits are provided to employees' spouses as more particularly set forth in Chapter 3.46 of the TMC, a copy of which is attached hereto as Exhibit "B".

12. ASSIGNMENT/SUBCONTRACTING.

A. The SERVICE PROVIDER shall not assign its performance under this Agreement or any portion of this Agreement without the written consent of the CITY, and it is further agreed that said consent must be sought in writing by the SERVICE PROVIDER not less than thirty (30) days prior to the date of any proposed assignment. The CITY reserves the right to reject without cause any such assignment.

B. Any work or services assigned hereunder shall be subject to each provision of this Agreement and proper bidding procedures where applicable as set forth in local, state and/or federal statutes, ordinances and guidelines.

C. Any technical service subcontract not listed in this Agreement, must have express advance approval by the CITY.

13. NON-APPROPRIATION OF FUNDS.

If sufficient funds are not appropriated or allocated for payment under this Agreement for any future fiscal period, the CITY will not be obligated to make payments for services or amounts incurred after the end of the current fiscal period, and this Agreement will terminate upon the completion of all remaining services for which funds are allocated. No penalty or expense shall accrue to the CITY in the event this provision applies.

14. CHANGES.

Either party may request changes to the Scope of Services and performance to be provided hereunder, however, no change or addition to this Agreement shall be valid or binding upon either party unless such change or addition be in writing and signed by both parties. Such amendments shall be attached to and made part of this Agreement.

15. MAINTENANCE AND INSPECTION OF RECORDS.

A. The SERVICE PROVIDER at such times and in such forms as the CITY may require, shall furnish to the CITY such statements, records, reports,

data, and information as the CITY may request pertaining to matters covered by this Agreement.

B. The SERVICE PROVIDER shall maintain books, records and documents, which sufficiently and properly reflect all direct and indirect costs related to the performance of this Agreement and shall maintain such accounting procedures and practices as may be necessary to assure proper accounting of all funds paid pursuant to this Agreement. These records shall be subject at all reasonable times to inspection, review, or audit, by the CITY, its authorized representative, the State Auditor, or other governmental officials authorized by law to monitor this Agreement.

C. To ensure the CITY'S compliance with the Public Records Act, RCW 42.56, the SERVICE PROVIDER shall retain all books, records, documents and other material relevant to this agreement, for six (6) years after its expiration. The SERVICE PROVIDER agrees that the CITY or its designee shall have full access and right to examine any of said materials at all reasonable times during said period.

16. POLITICAL ACTIVITY PROHIBITED.

None of the funds, materials, property or services provided directly or indirectly under the Agreement shall be used for any partisan political activity, or to further the election or defeat of any candidate for public office.

17. PROHIBITED INTEREST.

No member, officer, or employee of the CITY shall have any interest, direct or indirect, in this Agreement or the proceeds thereof.

18. NOTICE.

Notice provided for in this Agreement shall be sent by certified mail to the addresses designated for the parties on the signature page of this Agreement.

19. ATTORNEYS FEES AND COSTS.

If any legal proceeding is brought for the enforcement of this Agreement, or because of a dispute, breach, default, or misrepresentation in connection with any of the provisions of this Agreement, the prevailing party shall be entitled to recover from the other party, in addition to any other relief to which such party may be entitled, reasonable attorney's fees and other costs incurred in that action or proceeding.

20. JURISDICTION AND VENUE.

A. This Agreement has been and shall be construed as having been made and delivered within the State of Washington. It is agreed by each party hereto that this Agreement shall be governed by laws of the State of Washington, both as to interpretation and performance.

B. Any action of law, suit in equity, or judicial proceeding for the enforcement of this Agreement or any provisions thereof shall be instituted and maintained in the superior court of Thurston County, Washington

21. SEVERABILITY.

A. If, for any reason, any part, term or provision of this Agreement is held by a court of the United States to be illegal, void or unenforceable, the validity of the remaining provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular provision held to be invalid.

B. If it should appear that any provision hereof is in conflict with any statutory provision of the State of Washington, said provision which may conflict therewith shall be deemed inoperative and null and void insofar as it may be in conflict therewith, and shall be deemed modified to conform to such statutory provisions.

22. ENTIRE AGREEMENT.

The parties agree that this Agreement is the complete expression of the terms hereto and any oral representations or understandings not incorporated herein are excluded. Further, any modification of this Agreement shall be in writing and signed by both parties. Failure to comply with any of the provisions stated herein shall constitute material breach of contract and cause for termination. Both parties recognize time is of the essence in the performance of the provisions of this Agreement. It is also agreed by the parties that the forgiveness of the nonperformance of any provision of this Agreement does not constitute a waiver of the provisions of this Agreement. This Agreement may be executed in any number of counterparts, which counterparts shall collectively constitute the entire Agreement.

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed the day and year first hereinabove written.

CITY:
CITY OF TUMWATER
555 Israel Road SW
Tumwater, WA 98501

SERVICE PROVIDER:
SHEA, CARR & JEWELL, INC. (dba SCJ Alliance)
8730 Tallon Lane NE, Suite 200
Lacey, WA 98516
UBI No. 602-612-261
Phone No. 360-352-1465

Debbie Sullivan
Mayor

Signature (Notarized – see below)
Printed Name: _____
Title: _____

ATTEST:

Melody Valiant, City Clerk

APPROVED AS TO FORM:

Karen Kirkpatrick, City Attorney

STATE OF WASHINGTON)
) ss.
COUNTY OF THURSTON)

I certify that I know or have satisfactory evidence that _____(name) is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____(title) of _____(company) to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated:_____

Notary Public in and for the State of Washington,
My appointment expires:_____

Exhibit A

Subconsultant Fee Determination Summary - Exhibit E-1

SCJ Alliance

Client: City of Tumwater
Project: Deschutes Valley Trail Segments: A2,B,D,Palermo
Job #: 25-000313
File Name: 25-000313_FEE_Segment C_2025822-civil.xlsm

Template Version: 7/2/2025
Contract Type: LAG Contract

Consultant Fee Determination

DIRECT SALARY COST

Classification	Hours	Direct Hourly Rate	Amount
Principal	24.0	$104.86	$2,516.64
Senior Project Manager	278.0	$79.29	$22,041.37
Senior Project Manager	505.0	$76.59	$38,680.22
E3 Engineer	540.0	$46.82	$25,282.80
T4 Technician	546.0	$42.94	$23,446.50
Senior Landscape Architect	109.0	$57.79	$6,299.11
L4 Landscape	178.0	$47.27	$8,414.06
L1 Landscape	364.0	$31.49	$11,462.36
Graphic Designer	28.0	$32.20	$901.60
P3 Planner	12.0	$46.95	$563.40
Senior Consultant	164.0	$84.54	$13,865.05
PM3 Project Manager	30.0	$73.56	$2,206.73
P4 Planner	52.0	$48.08	$2,500.00
Project Accountant	22.0	$38.92	$856.24
		Total Direct Salary Cost	**$159,036.08**

OVERHEAD

Overhead Rate: 191.76% Direct Salary Cost: **$159,036.08** **Overhead Cost** **$304,967.60**

FIXED FEE

Fixed Fee Rate: 26.00% Direct Salary Cost: **$159,036.08** **Fixed Fee Cost** **$41,349.38**

TOTAL SALARY COST

Total Salary Cost **$505,353.06**

SUBCONSULTANTS

DEA	Task 2	Topographic Survey and Right of Way Ma	$46,517
Sage	Task 3	Geotechnical Analysis (Sage)	$77,497
Sargent	Task 4	Structural Engineering (Sargent)	$107,881
NHC	Task 5	Hydraulics and Hydrology Services (NHC)	$29,121
SWCA	Task 7	Cultural Resource Services (SWCA)	$42,403
DEA	Task 8	Environmental Fieldwork and Mitigation	$147,579
	Subconsultant Fee Subtotal: $0		**$450,998.00**
	Subconsultant Markup: 0%		**$0.00**

REIMBURSABLE EXPENSES

Copies, Printing, etc.	0.0%	of the Direct Salary Costs			$0.00
Mileage	200	miles at	$0.700	per mile	$140.00
Expenses Subtotal:					**$140.00**
Expenses Markup:	0%				**$0.00**

SUBTOTAL (SALARY, SUBCONSULTANTS AND EXPENSES)

Subtotal (Salary, Subconsultants and Expenses) **$956,491.06**

MANAGEMENT RESERVE FUND (MRF)

Management Reserve: $100,000 **$100,000.00**

Total Estimated Budget: **$1,056,491.06**

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
Task 1	**Management / Coordination / Administration**																
Subtask 1	**Continuous Project Management**																$ 42,794.59
1	Consultant Team Management	4.0	24.0	12.0												40.0	$ 10,299.95
2	Prepare Project Schedule		2.0	4.0			4.0									10.0	$ 2,211.96
3	Maintenance of Schedule and Budget		6.0	4.0												10.0	$ 2,485.17
4	Progress Reports		2.0	6.0												8.0	$ 1,964.20
5	Schedule and Budget Monitoring		4.0	6.0												10.0	$ 2,468.07
6	Coordination with City	4.0	40.0	40.0												84.0	$ 21,145.78
7	Record Keeping		2.0	4.0											6.0	12.0	$ 2,219.46
	Subtotal Hours:	8.0	80.0	76.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	174.0	$ 42,794.59
Subtask 2	**Continuous Administrative Services**																$ 26,660.28
1	Project Set-up and Execute Agreement	2.0	2.0	4.0											2.0	10.0	$ 2,391.17
2	Execution of Subconsultant Agreements	2.0	2.0	4.0											2.0	10.0	$ 2,391.17
3	Subconsultant Administration		12.0	24.0											6.0	42.0	$ 9,606.56
4	Review Subconsultant Deliverables		12.0	24.0												36.0	$ 8,864.53
5	Preparation of Monthly Invoices	2.0	6.0	2.0											6.0	16.0	$ 3,406.84
	Subtotal Hours:	6.0	34.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	114.0	$ 26,660.28
Subtask 3	**Biweekly Design Coordination Meetings**																$ 6,678.43
1	Biweekly Design Coordination Meetings		12.0	12.0			4.0									28.0	$ 6,678.43
	Subtotal Hours:	0.0	12.0	12.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	$ 6,678.43
Subtask 4	**Submitting Project Deliverables**																$ 15,100.76
1	Submittal and Documentation	8.0	12.0	24.0	24.0											68.0	$ 15,100.76
	Subtotal Hours:	8.0	12.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.0	$ 15,100.76
	Total Phase Hours:	22.0	138.0	170.0	24.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	384.0	384.0
	Total Phase Direct Labor:	$2,306.92	$10,941.40	$13,021.07	$1,123.68	$0.00	$462.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$856.24	$28,711.62	$ 91,234.05
Task 2	**Topographic Survey and Right of Way Mapping (DEA)**																
Task 3	**Geotechnical Analysis (Sage)**																
Task 4	**Structural Engineering (Sargent)**																
Task 5	**Hydraulics and Hydrology Services (NHC)**																
Task 6	**Arborist Services**																

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
Subtask 1	**Background Document Review and Conceptual Site Walk**																$ 2,403.28
1	Background Document Review							16.0								16.0	$ 2,403.28
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	$ 2,403.28
Subtask 2	**Tree Health Assessment**																$ 3,972.19
1	Tree Health Assessment						2.0	24.0								26.0	$ 3,972.19
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	2.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	$ 3,972.19
Subtask 3	**Design Review**																$ 3,604.92
1	Design Review							24.0								24.0	$ 3,604.92
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.0	$ 3,604.92
Subtask 4	**Public Involvement**																$ 2,838.74
1	Public Involvement							8.0		16.0					0.0	24.0	$ 2,838.74
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	24.0	$ 2,838.74
Subtask 5	**Final Design Communication**																$ 2,770.55
1	Final Design Communication						2.0	16.0								18.0	$ 2,770.55
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	2.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	$ 2,770.55
Subtask 6	**Bid Period Services**																$ 1,201.64
1	Bid Period Services							8.0								8.0	$ 1,201.64
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	$ 1,201.64
	Total Phase Hours:	0.0	0.0	0.0	0.0	0.0	4.0	96.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	116.0	$ 116.0
	Total Phase Direct Labor:	$0.00	$0.00	$0.00	$0.00	$0.00	$231.16	$4,537.92	$0.00	$515.20	$0.00	$0.00	$0.00	$0.00	$0.00	$5,284.28	$ 16,791.33
Task 7	**Cultural Resource Services (SWCA)**																
Task 8	**Environmental Fieldwork and Mitigation (DEA)**																
Task 9	**Environmental Compliance and Permitting**																
Subtask 1	**Environmental Permitting Evaluation / Alternative Comparison**																$ 4,214.37
1	Environmental Permitting Evaluation / Alternative Comparison		2.0	2.0								12.0				16.0	$ 4,214.37
	Subtotal Hours:	0.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	16.0	$ 4,214.37
Subtask 2	**Communication & Coordination**																$ 19,978.19
1	Communication & Coordination		8.0	8.0	4.0							40.0	20.0			80.0	$ 19,978.19
	Subtotal Hours:	0.0	8.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	20.0	0.0	0.0	80.0	$ 19,978.19
Subtask 3	**NEPA**																$ 9,509.81
1	NEPA		4.0									18.0		24.0		46.0	$ 9,509.81

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
	Subtotal Hours:	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	24.0	0.0	46.0	$ 9,509.81
Subtask 4	**JARPA Preparation**																$ 16,263.45
1	JARPA Preparation			8.0	24.0							40.0				72.0	$ 16,263.45
	Subtotal Hours:	0.0	0.0	8.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	72.0	$ 16,263.45
Subtask 5	**SEPA**																$ 5,949.35
1	SEPA			2.0								2.0	8.0	20.0		32.0	$ 5,949.35
	Subtotal Hours:	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0	20.0	0.0	246.0	$ 5,949.35
Subtask 6	**WDFW HPA**																$ 5,380.18
1	WDFW HPA			2.0	4.0							16.0				22.0	$ 5,380.18
	Subtotal Hours:	0.0	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	22.0	$ 5,380.18
Subtask 7	**Shoreline Substantial Development Permit**																$ 7,089.10
1	Shoreline Substantial Development Permit			4.0	4.0							16.0		8.0		32.0	$ 7,089.10
	Subtotal Hours:	0.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	8.0	0.0	32.0	$ 7,089.10
Subtask 8	**Coordination of Trail Design with EPA/DOE**																$ 5,809.14
1	Coordination of Trail Design with EPA/DOE			4.0								18.0				22.0	$ 5,809.14
	Subtotal Hours:	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	22.0	$ 5,809.14
	Total Phase Hours:	0.0	14.0	30.0	36.0	0.0	0.0	0.0	0.0	0.0	0.0	162.0	28.0	52.0	0.0	322.0	$ 322.0
	Total Phase Direct Labor:	$0.00	$1,110.00	$2,297.84	$1,685.52	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$13,695.97	$2,059.62	$2,500.00	$0.00	$23,348.94	$ 74,193.59
Task 10	**Stormwater Analysis and Design**																
Subtask 1	**Data Collection & Prelim Site Investigation**																$ 4,922.60
1	Data Collection & Prelim Site Investigation			8.0	20.0											28.0	$ 4,922.60
	Subtotal Hours:	0.0	0.0	8.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	$ 4,922.60
Subtask 2	**Predesign Analysis**																$ 8,507.13
1	Analysis of Existing Conveyance System(s) & Outfall(s)			16.0	20.0	12.0										48.0	$ 8,507.13
	Subtotal Hours:	0.0	0.0	16.0	20.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	$ 8,507.13
Subtask 3	**Final Stormwater Analysis and Design**																$ 7,366.22
1	Design of New Conveyance System(s)			16.0	16.0	8.0										40.0	$ 7,366.22
2	Design of On-Site Stormwater Management BMPs			16.0	16.0											32.0	$ 6,274.59
3	Endangered Species Act (ESA) Stormwater Design Checklist			2.0	4.0											6.0	$ 1,081.87
4	Drainage Control Plan (DCP) Reports			8.0	40.0	20.0										68.0	$ 10,627.17
	Subtotal Hours:	0.0	0.0	42.0	76.0	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	146.0	$ 25,349.85
Subtask 4	**Stormwater Pollution Prevention Plan (SWPPP)**																$ 2,380.40

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
1	Stormwater Pollution Prevention Plan (SWPPP)				16.0											16.0	$ 2,380.40
	Subtotal Hours:	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	$ 2,380.40
Subtask 5	**NPDES Permit**																$ 1,557.47
1	NPDES Permit				8.0		2.0									10.0	$ 1,557.47
	Subtotal Hours:	0.0	0.0	0.0	8.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	$ 1,557.47
	Total Phase Hours:	0.0	0.0	66.0	140.0	40.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	248.0	$ 248.0
	Total Phase Direct Labor:	$0.00	$0.00	$5,055.24	$6,554.80	$1,717.69	$115.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$13,443.31	$ 42,717.46
Task 11	**Public Outreach**																
Subtask 1	**Public Outreach Materials**																$ 5,187.72
1	Public Outreach Materials		2.0	2.0	4.0		1.0		4.0	12.0	12.0					37.0	$ 5,187.72
	Subtotal Hours:	0.0	2.0	2.0	4.0	0.0	1.0	0.0	4.0	12.0	12.0	0.0	0.0	0.0	0.0	37.0	$ 5,187.72
Subtask 2	**Predesign Analysis Stakeholder Engagement**																$ 3,962.59
1	Four In-Person Stakeholder Meetings		8.0	8.0												16.0	$ 3,962.59
	Subtotal Hours:	0.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	$ 3,962.59
Subtask 3	**Final Design Stakeholder / Public Engagement**																$ 1,981.30
1	Two In-Person Stakeholder Meetings		4.0	4.0												8.0	$ 1,981.30
2	One In-Person Public Open House	2.0	2.0	2.0			2.0					2.0	2.0			12.0	$ 3,029.08
	Subtotal Hours:	2.0	6.0	6.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	20.0	$ 5,010.38
	Total Phase Hours:	2.0	16.0	16.0	4.0	0.0	3.0	0.0	4.0	12.0	12.0	2.0	2.0	0.0	0.0	73.0	$ 73.0
	Total Phase Direct Labor:	$209.72	$1,268.57	$1,225.51	$187.28	$0.00	$173.37	$0.00	$125.96	$386.40	$563.40	$169.09	$147.12	$0.00	$0.00	$4,456.41	$ 14,160.69
Task 12	**60% Design**																
Subtask 1	**60% Plans**																$ 84,842.15
1	Data Collection and Preliminary Site Investigation		8.0	8.0	8.0		8.0									32.0	$ 6,621.86
X	Civil Predesign Analysis		2.0	8.0	8.0											18.0	$ 3,641.17
X	Compile Existing Drawings and Files			2.0	8.0	26.0										36.0	$ 5,224.76
X	Cover Sheet (1 sheet)			2.0	4.0	8.0										14.0	$ 2,173.50
X	Legend and Abbreviations (1 sheet)			2.0	4.0	8.0										14.0	$ 2,173.50
X	Alignment Plan and Survey Control (7 sheets)			1.0	8.0	16.0										25.0	$ 3,616.84
X	Existing Condition Plans (7 sheets)			2.0	4.0	8.0										14.0	$ 2,173.50
X	Site Preparation and TESC Plans (7 sheets)			2.0	4.0	16.0										22.0	$ 3,265.13
X	Construction Staging and Access Plans (14 sheets)			4.0	8.0	20.0										32.0	$ 4,892.82
X	Trail Plans and Profiles (13 sheets)			2.0	8.0	20.0										30.0	$ 4,406.04

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
X	Trail Typical Cross Sections (3 sheets)			2.0	8.0	12.0										22.0	$ 3,314.42
X	Trail General Notes and Details (4 sheets)			2.0	4.0	12.0										18.0	$ 2,719.32
X	Trail Canopy and Fencing Plans (3 sheets)			2.0	4.0	8.0										14.0	$ 2,173.50
X	Trail Canopy and Fencing Details (2 sheets)			2.0	4.0	8.0										14.0	$ 2,173.50
X	Bridge Plans (Prepared under separate task, 5 sheets)															0.0	$ -
X	Retaining Wall Plans (Prepared under separate task, 4 sheets)															0.0	$ -
X	Tee Box Relocation Plans (4 sheets)			2.0	10.0	24.0										36.0	$ 5,249.41
X	Stormwater Conveyance and Relocation Plan and Profiles (3 sheets)			4.0	10.0	24.0										38.0	$ 5,736.18
X	Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task, 4 sheets)															0.0	$ -
X	Urban Design Plans (3 sheets)			4.0	10.0	30.0	2.0		4.0							50.0	$ 7,322.42
X	Urban Trail Details (3 sheets)			4.0	10.0	30.0	2.0		4.0							50.0	$ 7,322.42
X	Irrigation Relocation Plan (4 sheets)						4.0		32.0							36.0	$ 3,936.54
X	Landscape and Restoration Plans (4 sheets)						4.0		32.0							36.0	$ 3,936.54
X	Landscape and Restoration Plant Schedule (2 sheets)						2.0		24.0							26.0	$ 2,768.77
	Subtotal Hours:	0.0	10.0	55.0	124.0	270.0	22.0	0.0	96.0	0.0	0.0	0.0	0.0	0.0	0.0	577.0	$ 84,842.15
Subtask 2	**60% Cost Estimate**																$ 6,179.90
1	60% Cost Estimate		1.0	2.0	16.0	8.0	2.0	8.0	4.0							41.0	$ 6,179.90
	Subtotal Hours:	0.0	1.0	2.0	16.0	8.0	2.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	41.0	$ 6,179.90
Subtask 3	**60% Specifications**																$ 10,058.68
1	60% Specifications		8.0	16.0	16.0		2.0	4.0	8.0							54.0	$ 10,058.68
	Subtotal Hours:	0.0	8.0	16.0	16.0	0.0	2.0	4.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	$ 10,058.68
Subtask 4	**Quality Assurance / Quality Control**																$ 10,160.88
1	Quality Assurance / Quality Control		16.0	16.0			4.0	2.0	12.0							50.0	$ 10,160.88
	Subtotal Hours:	0.0	16.0	16.0	0.0	0.0	4.0	2.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	$ 10,160.88
	Total Phase Hours:	0.0	35.0	89.0	156.0	278.0	30.0	14.0	120.0	0.0	0.0	0.0	0.0	0.0	0.0	722.0	$ 722.0
	Total Phase Direct Labor:	$0.00	$2,774.99	$6,816.91	$7,303.92	$11,937.96	$1,733.70	$661.78	$3,778.80	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$35,008.06	$ 111,241.62
Task 13	**Final Design**																
Subtask 1	**90% Plans**																$ 36,640.93
1	Cover Sheet (1 sheet)					1.0										1.0	$ 136.45
X	Legend and Abbreviations (1 sheet)					1.0										1.0	$ 136.45
X	Alignment Plan and Survey Control (7 sheets)				1.0	2.0										3.0	$ 421.68
X	Existing Condition Plans (7 sheets)				1.0	2.0										3.0	$ 421.68
X	Site Preparation and TESC Plans (7 sheets)			1.0	2.0	4.0										7.0	$ 1,086.75

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
X	Construction Staging and Access Plans (14 sheets)			4.0	8.0	8.0										20.0	$ 3,255.38
X	Trail Plans and Profiles (13 sheets)			1.0	4.0	8.0										13.0	$ 1,930.12
X	Trail Typical Cross Sections (3 sheets)			1.0	4.0	4.0										9.0	$ 1,384.30
X	Trail General Notes and Details (4 sheets)			1.0	4.0	4.0										9.0	$ 1,384.30
X	Trail Canopy and Fencing Plans (3 sheets)			1.0	2.0	4.0										7.0	$ 1,086.75
X	Trail Canopy and Fencing Details (2 sheets)			1.0	2.0	4.0										7.0	$ 1,086.75
X	Bridge Plans (Prepared under separate task, 5 sheets)															0.0	$ -
X	Retaining Wall Plans (Prepared under separate task, 4 sheets)															0.0	$ -
X	Stormwater Conveyance and Relocation Plan and Profiles (3 sheets)			2.0	8.0	8.0										18.0	$ 2,768.60
X	Stormwater Details (2 sheets)			2.0	4.0	8.0										14.0	$ 2,173.50
X	Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task, 4 sheets)															0.0	$ -
X	Utility Details (Prepared under separate task, 1 sheet)															0.0	$ -
X	Urban Design Plans (3 sheets)			1.0	4.0	12.0	2.0		8.0							27.0	$ 3,643.70
X	Urban Trail Details (3 sheets)			1.0	4.0	12.0										17.0	$ 2,475.93
X	Irrigation Relocation Plan (4 sheets)						2.0		36.0							38.0	$ 3,969.52
X	Landscape and Restoration Plans (4 sheets)						2.0		36.0							38.0	$ 3,969.52
X	Landscape and Restoration Plant Schedule (2 sheets)						4.0		24.0							28.0	$ 3,136.04
X	Traffic Control Plans (2 sheets)			2.0	4.0	8.0										14.0	$ 2,173.50
	Subtotal Hours:	0.0	0.0	18.0	52.0	90.0	10.0	0.0	104.0	0.0	0.0	0.0	0.0	0.0	0.0	274.0	$ 36,640.93
Subtask 2	**90% Cost Estimate**																$ 4,589.45
1	90% Cost Estimate		1.0	2.0	8.0	8.0	2.0	8.0								29.0	$ 4,589.45
	Subtotal Hours:	0.0	1.0	2.0	8.0	8.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.0	$ 4,589.45
Subtask 3	**90% Specifications**																$ 7,478.60
1	90% Specifications		8.0	16.0			2.0	8.0								34.0	$ 7,478.60
	Subtotal Hours:	0.0	8.0	16.0	0.0	0.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	$ 7,478.60
Subtask 4	**100% Plans**																$ 28,863.75
1	Cover Sheet (1 sheet)					1.0										1.0	$ 136.45
X	Legend and Abbreviations (1 sheet)					1.0										1.0	$ 136.45
X	Alignment Plan and Survey Control (7 sheets)				1.0	1.0										2.0	$ 285.23
X	Existing Condition Plans (7 sheets)					1.0										1.0	$ 136.45
X	Site Preparation and TESC Plans (7 sheets)			1.0	2.0	4.0										7.0	$ 1,086.75
X	Construction Staging and Access Plans (14 sheets)			1.0	4.0	4.0										9.0	$ 1,384.30
X	Trail Plans and Profiles (13 sheets)			1.0	4.0	8.0										13.0	$ 1,930.12
X	Trail Typical Cross Sections (3 sheets)			1.0	4.0	4.0										9.0	$ 1,384.30
X	Trail General Notes and Details (4 sheets)				1.0	2.0										3.0	$ 421.68

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
X	Trail Canopy and Fencing Plans (3 sheets)				1.0	2.0										3.0	$ 421.68
X	Trail Canopy and Fencing Details (2 sheets)				1.0	2.0										3.0	$ 421.68
X	Bridge Plans (Prepared under separate task, 5 sheets)															0.0	$ -
X	Retaining Wall Plans (Prepared under separate task, 4 sheets)															0.0	$ -
X	Stormwater Conveyance and Relocation Plan and Profiles (3 sheets)			1.0	4.0	4.0										9.0	$ 1,384.30
X	Stormwater Details (2 sheets)			1.0	4.0	4.0										9.0	$ 1,384.30
X	Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task, 4 sheets)															0.0	$ -
X	Utility Details (Prepared under separate task, 1 sheet)															0.0	$ -
X	Urban Design Plans (3 sheets)			1.0	2.0	8.0	2.0		4.0							17.0	$ 2,400.08
X	Urban Trail Details (3 sheets)			1.0	2.0	8.0	4.0		4.0							19.0	$ 2,767.35
X	Irrigation Relocation Plan (4 sheets)						4.0		32.0							36.0	$ 3,936.54
X	Landscape and Restoration Plans (4 sheets)						4.0		32.0							36.0	$ 3,936.54
X	Landscape and Restoration Plant Schedule (2 sheets)						4.0		24.0							28.0	$ 3,136.04
X	Traffic Control Plans (2 sheets)			2.0	4.0	8.0										14.0	$ 2,173.50
	Subtotal Hours:	0.0	0.0	10.0	34.0	62.0	18.0	0.0	96.0	0.0	0.0	0.0	0.0	0.0	0.0	220.0	$ 28,863.75
Subtask 5	**100% Cost Estimate**																$ 6,599.01
1	100% Cost Estimate		2.0	2.0	8.0	4.0	8.0	16.0								40.0	$ 6,599.01
	Subtotal Hours:	0.0	2.0	2.0	8.0	4.0	8.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	$ 6,599.01
Subtask 6	**100% Specifications**																$ 7,979.58
1	100% Specifications		8.0	16.0			8.0	4.0								36.0	$ 7,979.58
	Subtotal Hours:	0.0	8.0	16.0	0.0	0.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	$ 7,979.58
Subtask 7	**Quality Assurance / Quality Control**																$ 8,898.74
1	Quality Assurance / Quality Control		16.0	20.0												36.0	$ 8,898.74
	Subtotal Hours:	0.0	16.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.0	$ 8,898.74
Subtask 8	**Supporting Documentation for WSDOT PS&E**																$ 7,434.63
1	Supporting Documentation for WSDOT PS&E		8.0	8.0	16.0	8.0										40.0	$ 7,434.63
	Subtotal Hours:	0.0	8.0	8.0	16.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	$ 7,434.63
Subtask 9	**Final Documentation for Land Use Permits**																$ 12,019.22
1	Final Documentation for Land Use Permits		16.0	8.0	16.0	8.0	2.0	4.0	16.0							70.0	$ 12,019.22
	Subtotal Hours:	0.0	16.0	8.0	16.0	8.0	2.0	4.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0	$ 12,019.22
Subtask 10	**Bid Documents and Comment Response**																$ 25,412.08
1	Comment Response		8.0	20.0	20.0	20.0	4.0	8.0	16.0							96.0	$ 16,124.99
2	Bid Documents		4.0	8.0	16.0	16.0	2.0	4.0	8.0							58.0	$ 9,287.09
	Subtotal Hours:	0.0	12.0	28.0	36.0	36.0	6.0	12.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	154.0	$ 25,412.08

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segment C_20250904-civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin - Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Landscape Architect**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
	Total Phase Hours:	0.0	71.0	128.0	170.0	216.0	56.0	52.0	240.0	0.0	0.0	0.0	0.0	0.0	0.0	933.0	$ 933.0
	Total Phase Direct Labor:	$0.00	$5,629.27	$9,804.10	$7,959.40	$9,275.54	$3,236.24	$2,458.04	$7,557.60	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$45,920.18	$ 145,915.97
Task 14	**Bid Assistance**																
Subtask 1	**Bid Assistance**																$ 4,989.11
1	Prepare Addenda as Requested (assumed 2 prepared)		1.0	2.0	4.0	8.0	2.0									17.0	$ 2,792.71
2	Respond to Bidder Questions		1.0	2.0	4.0		2.0									9.0	$ 1,701.08
3	Attend Bid Opening		1.0	1.0												2.0	$ 495.32
	Subtotal Hours:	0.0	3.0	5.0	8.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	$ 4,989.11
Subtask 2	**Conformed Bid Plan Sheets and Specifications**																$ 4,109.24
1	Conformed Bid Plan Sheets and Specifications		1.0	1.0	2.0	4.0	2.0	16.0								26.0	$ 4,109.24
	Subtotal Hours:	0.0	1.0	1.0	2.0	4.0	2.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	$ 4,109.24
	Total Phase Hours:	0.0	4.0	6.0	10.0	12.0	6.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	$ 54.0
	Total Phase Direct Labor:	$0.00	$317.14	$459.57	$468.20	$515.31	$346.74	$756.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,863.28	$ 9,098.35
	Total Hours All Phases	24.0	278.0	505.0	540.0	546.0	109.0	178.0	364.0	28.0	12.0	164.0	30.0	52.0	22.0	2,852.0	2852.0
	Total Direct Labor Estimate All Phases	$2,516.64	$22,041.37	$38,680.22	$25,282.80	$23,446.50	$6,299.11	$8,414.06	$11,462.36	$901.60	$563.40	$13,865.05	$2,206.73	$2,500.00	$856.24	$159,036.08	**$ 505,353.06**

Indirect Costs		
Subconsultants:		
	DEA	$46,517.00
	Sage	$77,497.00
	Sargent	$107,881.00
	NHC	$29,121.00
	SWCA	$42,403.00
	DEA	$147,579.00
Subconsultant Subtotal:		$ 450,998.00
Subconsultant Markup:		$ -
Subconsultant Total:		**$ 450,998.00**
Reimbursable Expenses:		
	Copies, Printing, etc.	$ -
	Mileage	$ 140.00
Expenses Subtotal:		$ 140.00
Expenses Markup:		$ -
Expenses Total:		**$ 140.00**
Management Reserve:		$ 100,000.00
Total Indirect Costs:		**$ 551,138.00**
Total:		**$ 1,056,491.06**

SCOPE OUTLINE

City of Tumwater (COT) Deschutes Valley Trail (Segment C and Deschutes Valley Park Spur)

A. Project Description/Background

The Tumwater Deschutes Valley Trail (DVT) Project Segment C ("Project") proposes to complete the design and permitting for construction of a non-motorized trail with a paved surface and gravel shoulders providing access to undeveloped City right of way. The overall project starts at the recently completed DVT Segment A1 at the Brewery Park and extends over 2 miles southeast terminating at Pioneer Park. This scope is for Segment C ("Project") which will start at the Valley Athletic Club parking lot and terminate near the entrance to the Deschutes Valley Spur. Segment C includes the Deschutes Valley Park Spur.

The mainline trail will be 10-feet wide hot mix asphalt (HMA) with 1 to 2-foot gravel shoulders where practicable, generally following the trail alignment developed as part of the preliminary design project completed in 2018.

Mitigation needs for critical areas and steep slopes are yet to be determined and will be provided during this design phase with supporting documentation via design reports, memos, and design recommendations. Stream and/or wetland mitigation for the project's watershed will comply with City of Tumwater Municipal Code and Army Corp Permit requirements.

The project scope shall include the following task breakdown or something similar. Each subconsultant to the Prime Consultant shall have its scope of work in a separate task.

- Task 1 – Management / Coordination / Administration
- Task 2 – Topographic Survey and Right of Way Mapping (DEA)
- Task 3 - Geotechnical Analysis (Sage)
- Task 4 – Structural Engineering (Sargent)
- Task 5 – Hydraulics and Hydrology Services (NHC)
- Task 6 – Arborist Services (SCJ)
- Task 7 – Cultural Resources Services (SWCA)
- Task 8 – Environmental Fieldwork and Mitigation (DEA)
- Task 9 – Environmental Compliance and Permitting
- Task 10 – Stormwater Analysis and Design
- Task 11 – Public Outreach
- Task 12 – 60% Design
- Task 13 – Final Design
- Tasks 12-13 Trail Design key elements include:
    - Fill and cut slopes
    - Retaining walls
    - Stormwater conveyance and LID requirements
    - Landscaping and restoration
    - Urban trail features
    - Wet and dry utility relocation
    - Golf course netting and delineation with trail
    - Illumination modifications
    - Irrigation modifications
    - Constructability review
- Task 14 – Bid Assistance

Segment C and the Deschutes Valley Park Spur will be designed as one trail project under one plan set for deliverables. The project timeframe may be separate from Segments A2, B, D, and Palermo Spur

Segment C:

- Limits: End of Segment B just southeast of Valley Athletic club frontage along perimeter of City of Tumwater Valley Golf Course just past the proposed Deschutes Valley Park Spur intersection connection. Segment C includes the Deschutes Valley Park Spur up to the T Street neighborhood connection and trailhead entrance. Description of the Spur is stated below.
- Length along Segment C trail alignment: Approximately 5,150 LF

Deschutes Valley Park Spur:

- Limits: Intersection with Segment C up to T Street and entrance into Deschutes Valley Park.
- Length along the trail alignment: Approximately 950 LF
- Trail node connection and wayfinding to direct nonmotorized users from T Street onto DVT.
- Review Deschutes Valley Park As-builts and finalize trail connection into park.
- ADA compliant HMA Path
- Fill and slope protection with steep topography.
- Temporary Construction access for Segment C.

B. Project Assumptions

The following overall project assumptions are made to provide direction to the design. Specific task assumptions are identified at the end of each Task:

- The City of Tumwater has secured Connect Washington State Funds for Design and Federal Funding for Construction for Segment C. The project will follow federal requirements per WSDOT Local Agency Guidelines (LAG) for design, environmental, and right of way documentation for Segment C.
- Submittal of the final stamped PS&E bid documents are dependent on comment and review process for environmental permitting and acceptance timeline by stakeholders and decision makers at City as well as construction funding. The Consultant will not proceed with PS&E post 90% until direction is provided from City.
- The project will be bid as one project for length of Segment C and Deschutes Valley Park Spur.
- At this time, improvements and construction access will remain within the existing City-owned property and right-of-way (ROW). Right-of-way and permanent and/or temporary easement support services are not included in this Contract, but may be required for construction of the project.
- All new retaining walls are assumed to be gravity block retaining walls using Redi-Rock blocks, unless specifically noted otherwise.
- Large scale sewer and drinking water main improvements are not anticipated. However, some existing underground wet utilities may require spot relocations.
- Aerial utility undergrounding is not included in this contract.
- The Consultant shall prepare all drawings using AutoCAD or Civil3D.
- The trail will be designed utilizing the guidance of the WSDOT Design Manual Division 15 – Pedestrian and Bicycle Facilities and AASHTO, where applicable.
- The 30%, 60%, 90%, Final Design, and Bid Documentation level of effort for all tasks within this scope is based on the alignment and design elements identified as part of the 2018 preliminary design project.

C. City-Provided Items:

- All 2018 preliminary design plans and documentation
- Right of entries for surveying, geotechnical exploration, design, and/or construction, as required.
- Submittal reviews, comments, and approvals (one consolidated set of comments per submittal).
- Public notices, property owner mailings, postage.
- Grant funding documentation, if any.
- Host and update the City's project website and/or other City social media postings with content provided by the consultant.
- Meeting room arrangements for stakeholder engagement.
- Participation in public outreach efforts.
- Existing record drawings (as-built plans), horizontal and vertical monumentation, adjacent development plans, geotechnical reports, environmental reports, GIS maps, CAD drawings, and other applicable information, if available.
- Existing transportation analysis reports, counts, and models, if available.
- City boilerplate contract documents and General Special Provisions (GSPs) in electronic format.
- Contact information for franchise utility providers within the project area.
- City provided services including pothole for all potentially conflicting utilities identified by the consultant team.

D. Consultant Deliverables

Deliverables prepared by the Consultant are identified at the end of each Task.

E. Scope of Work

1. Task 1 – Management / Coordination / Administration

1.1. The Consultant will provide continuous project management services for the project duration (estimate 12 months) including:

- Consultant team management
- Prepare project schedule
- Maintenance of Schedule and Budget
- Progress Reports
- Schedule and budget monitoring
- Coordination with City staff via phone, email, Microsoft Teams, and in-person meetings
- Record keeping and design project closeout management (production in Task 1.5)

1.2 The Consultant will provide continuous administrative services for the project duration (estimate 12 months) including:

- Project set-up
- Subconsultant administration
- Review subconsultant deliverables
- Preparation of monthly invoices with progress reports. Progress reports will include information like tasks worked on monthly billing cycle, progress percentages on tasks, forecasting next month's tasks and deliverables.

1.3 The Consultant will prepare for and conduct biweekly design coordination meetings with City Project Manager and other Staff, as needed. These 30 minute meetings will be held via Microsoft Teams unless otherwise requested by the City.

1.4 Submittal and Documentation: The Consultant shall prepare, review, catalog, and submit all project deliverables to the City in digital format at each milestone and the end of the project. The digital documentation shall be arranged in a folder system matching the Project Tasks, i.e. documents completed in Task 2 should be sent to the City in a Task 2 folder.

Task 1 Assumptions:

- *For project deliverables and closeout of submittals, The Consultant's cloud based document sharing site, Project Web, will be used to share files. Folders shall be set-up to match tasks names and deliverables that can be recognized for all users with access.*
- *Quality Control and Quality Assurance will be included at the Task level.*

Task 1 Deliverables:

- *Monthly invoice with progress report of work done, work in progress, and anticipated work in next months invoice. Invoice will include percent complete for each task to track earned value.*
- *Biweekly meeting minutes*
- *Project schedule and updates using Microsoft Project (estimated preliminary schedule + 2 updates) (PDF)*
- *Project Closeout Documents (Electronic Zip Drive)*

2. Task 2 – Topographic Survey and Right of Way Mapping (DEA)

2.1 Task Management

Coordinate the efforts of the design team and maintain consistent communication with the City. Oversee adherence to the project schedule and provide monthly invoicing along with budget status summaries. Ensure quality through ongoing QA/QC review by the Team's Quality Manager. Conduct regular meetings with the CITY to provide project updates and address key milestones or concerns.

2.1.1 Task Planning – prepare project management plan, prepare project schedule, and maintain schedule and budget.

2.1.2 Task Monitoring – prepare invoices and monitor project status (cost, scope and schedule).

2.1.3 Progress Meetings - attend up to seven (7) in-person meetings, and five (5) video conference call meetings. It is assumed that the in-person meeting will be two (2) hours in duration and each video conference call meeting will be approximately one (1) hour long. Provide meeting agendas before and meeting summary after each meeting.

No. of Meetings	Meeting Name
1	Project Kick-off Meeting
1	Environmental Kickoff Meeting
1	Reclaimed Water Line Alignment Alternative Meeting
1	30-Percent Design Milestone Review Meeting
1	60-Percent Design Milestone Review Meeting
1	Development Permit Application Submittal Meetings

1	90-Percent Design Milestone Review Meeting
5	Project Status and Design Coordination Video Conference Calls

2.1.4 Design Review Submittal – Prepare submittals to City for review and comments at project stages as indicated below.

2.1.5 Quality Assurance – Perform QA/QC review by experienced professional for deliverables.

2.1.6 Project Closeout – completion of project including files and records archiving and transfer and documentation of completed work.

2.2. The Consultant will perform supplemental topographic survey and infill mapping in areas where updated or missing data is required to support preliminary design for Segment C and the Deschutes Valley Trail Spur. This task includes updating outdated base mapping and capturing new field data in areas where recent field conditions, environmental delineations, or design revisions require additional survey coverage.

Survey Limits and areas for Segment C, including Spur to be evaluated for survey updates as stated below:

- Segment C
  - Critical area and Wetland Delineations as flagged in the field by the biologist will be mapped.
  - Updated tee box locations, reflecting any shifts in layout from recent golf course revisions.
- Deschutes Valley Spur Trail
  - Critical area and Wetland Delineations as flagged by the biologist will be mapped.

2.3. Additional survey needed outside of existing survey limits will be limited to 25 field hours and 25 office hours to perform additional survey outside the defined limits (e.g., due to trail realignments). If additional work exceeds these hours, the City will be notified prior to proceeding.

Task 2 Assumptions:

- *Existing survey control provided for in this contract will be verified by establishing horizontal and vertical control based on NAD83/91 horizontal datum and NGVD 29 for vertical datum throughout the project.*
- *The lateral extent of the survey updates will match the extent of the existing survey.*
- *Survey deliverable will be provided to SCJ for incorporation into the existing survey basemaps.*

Task 2 Deliverables:

- *Electronic basemaps for each segment covering the updated/infill survey areas.*

3. Task 3 – Geotechnical Analysis (Sage)

The scope of work will be divided into three phases. The first phase will support pre-design analysis; no geotechnical explorations will be conducted during this phase. Phase 2 will consist of completing a geotechnical investigation to obtain additional subsurface soil and groundwater information to support final design. The third phase will consist of geotechnical engineering analysis and recommendations to support design of the trail segments. Specific tasks for each phase are described below.

3.2. Predesign Analysis and Consultation: Sage will review the existing design elements and concepts and work with the team to identify key design considerations that could be optimized. Specific tasks will include:

- **Project Setup:** Sage will initiate the project and set up billing information in support of invoicing throughout the project.
- **Attend Project Kickoff Meeting:** Sage will participate in one project kickoff meeting with the City of Tumwater and the design team.
- **Review Geologic Hazardous Areas:** Sage will identify and evaluate geologic hazards near the alignments that could impact on the proposed improvements and alternative alignment options.
- **Site Reconnaissance Visit:** Sage will conduct a site visit to evaluate the existing conditions, areas of proposed improvements, and options for design alternatives being considered by the design team.
- **Attend Conceptual Design meetings:** Sage will participate in two conceptual design meetings with the project team.
- Evaluate Potential Design Optimizations: Sage will provide geotechnical input to the design team based on the existing information as the design team evaluates the existing preliminary designs and potential areas for design optimization.

3.3. Geotechnical Investigation: Sage will supplement existing geotechnical information by completing geotechnical field work:

- **Generate Geotechnical Work Plan Memo:** Sage will prepare a Geotechnical Work Plan Memorandum describing exploration means and methods associated with the exploration program. This work plan will be submitted to the design team and the City for review and approval.

- **Conduct Utility Locates:** Prior to mobilizing equipment, Sage will mark the proposed exploration locations and arrange for utility locates using the One-Call Utility Notification Center. In addition, private utility locators will be utilized when deemed necessary.

- **Boring Access**: Subcontract an excavator and operator to assist with drill rig access into wooded areas along the Deschutes Valley Park Spur. Hire a fencing contractor to cut, remove, and reinstall fencing section as required to access the Deschutes Valley Park Spur.

- **Conduct Limited Access Borings:** Sage will execute geotechnical borings using a limited access tracked drill rig, including:

- **Segment C:** Five borings to depths between about 10 and 25 feet below ground surface (bgs). These borings will be used to support design of proposed retaining walls, fill embankments, and canopy fencing foundations.

- **Deschutes Valley Park Spur:** One boring to depth between 30 and 40 feet bgs. Boring will be used to provide additional analysis and recommendations to support the large cuts and fill.

- **Palermo Waterway Bridge:** One boring to a depth of 75 to 100 feet bgs.

- **Perform Geophysical Subsurface Investigation:** Sage will subcontract a geophysical investigation of subsurface soils using Refraction-Microtremor (ReMi)

to collect shear wave velocity measurements of the soils in the upper 100 feet of the site (bridge site).

- **Perform Groundwater Monitoring:** Complete two of the geotechnical borings with flush mount monitoring wells. Install pressure transducers and record groundwater levels for one year, including monthly equipment checks with manual readings.

- **Prepare Summary Logs and Conduct Lab Testing:** Sage will generate summary boring logs and conduct geotechnical laboratory testing on the representative soil samples obtained from the borings.

3.4. Geotechnical Design Services: Complete geotechnical engineering analysis to support the design. Sage will:

- **Evaluate Field and Laboratory Data:** Generate estimates of the soil strength and other properties needed to evaluate the effects the subsurface conditions will have on the proposed improvements.
- **Develop Updated AASHTO Seismic Design Parameters:** Determine the Site Class seismic parameters in accordance with AASHTO requirements.
- **Evaluate Liquefaction and Lateral Spread Potential**: Evaluate the susceptibility to liquefaction of the materials at the bridge for the design event required by AASHTO. If liquefication and lateral spreading are anticipated following the design seismic event, Sage will assess the potential impacts on the proposed improvements.
- **Develop Updated Bridge Foundation Recommendations:** Review foundation recommendations in the draft geotechnical report and perform additional analyses of foundation vertical capacities and lateral resistance for the preferred foundation type using the AASHTO LRFD Bridge Specifications and the Washington State Department of Transportation (WSDOT) Geotechnical Design Manual (GDM).
- **Generate Bridge Abutment Lateral Earth Pressures:** Provide lateral earth pressure recommendations for proposed bridge abutment structures and wing walls. Earth pressure diagrams for both static and seismic loading conditions will be generated using the procedures outlined in the WSDOT GDM.
- **Develop Trail Retaining Wall Design Parameters:** Develop design parameters and earthwork recommendations for gravity block and structural earth walls (SEWs) such as those produced by Redi-Rock, which are likely to be the preferred wall types for most situations. Sage will also evaluate other potential wall types, where appropriate.
- **Evaluate Slope Stability for Proposed Walls, Cuts and Fills:** Evaluate global stability of the proposed retaining structures, permanent cuts, and permanent fills. Global stability will be evaluated using the limit equilibrium approach under both static and seismic loading conditions.
- **Evaluate Impacts on Geologic Hazards:** Evaluate geologic hazards at the site and impacts of the proposed improvements on the geologic hazards.

- **Develop Foundation Design Recommendations for Netting/Fencing:** Develop geotechnical recommendations for design and construction of the netting/fencing foundations.
- **Review Existing Pavement Recommendations:** Review existing pavement recommendations provided in the preliminary plans, and provide updated recommendations as needed.
- **Draft Geotechnical Engineering Report:** Prepare a draft geotechnical engineering report summarizing the results of the review and subsurface investigation and presenting conclusions and recommendations.
- **Draft Report Comments:** Address questions and comments on the draft report and provide consultation to the design team on geotechnical aspects of the project as the design progresses to final design.
- **Final Geotechnical Engineering Report:** Finalize the report after receiving review comments from the design team.
- **Geotechnical Data Report:** Following delivery of the final geotechnical report, Sage will issue a final geotechnical data report for inclusion in bid documents.
- **Consultation, Project Management, and QA/QC:** Provide project management and correspondence with the design team to all geotechnical related aspects of the project. Sage will correspond with the City and the design team in the form of meetings, emails, and telephone calls, as necessary.

Task 3 Assumptions:

- *The geotechnical explorations proposed herein will not be used to assess site environmental conditions. However, visual or olfactory observations regarding potential contamination will be noted. Analysis, testing, storage, and handling potentially contaminated soil and groundwater (either sampled or spoils from drilling) are beyond this scope of services. If contaminated soils and/or groundwater are encountered, the material will be properly contained on-site for disposal as mutually agreed upon without additional cost to* Sage.
- *Per the 7/10/25 site access meeting with City personnel, drilling mud will be disposed of on-site by pumping into wooded areas away from waterways. Drill spoils (sand and gravel) will be disposed of on-site in vegetated areas. Exception: drilling mud for the Palermo Waterway Bridge boring will be drummed and disposed of off-site by the drilling subcontractor.*
- *Rights of entry and right of way permitting will be provided by the City at no cost to Sage.*
- *Site-specific seismic response analysis in excluded.*
- *Ground improvement design is excluded.*
- *Lateral spreading evaluations/design will be by the force-based method.*
- *The borehole locations will be identified using handheld GPS units.*
- *Decommissioning of monitoring wells is excluded.*
- *Obtaining clearing and grading permits for the drill rig assess and associated excavator assistance is excluded.*

Task 3 Deliverables:

- *Electronic copy Geotechnical Work Plan Memorandum.*
- *Electronic copy Draft and Final Geotechnical Engineering Report.*
- *Final Geotechnical Data Report*

4. Task 4 – Structural Engineering (Sargent)

The consultant will provide structural engineering support for the design of Segment C which includes the Deschutes Valley Park Spur (Project) which will start at the Valley Athletic Club parking lot and terminate near the entrance just south of the Deschutes Valley Spur.

4.2. Project Administration and Management: The consultant will provide project management services for the consultant's activities. The consultant will provide the administration services, including the project set-up, preparation of monthly invoices with progress reports, as well as the maintenance of the budget and schedule.

4.3. Public Outreach: The consultant will provide assistance to the prime consultant and the City for the public outreach efforts. The effort is expected mainly to focus on the bridge structure.

4.4. Review Existing Data: The consultant will review the existing data, reports, and CAD to understand the project. The consultant team will also visit the site to assess the conditions.

4.5. Conceptual Design Retaining Walls: The Project includes one wall as specified below. It is assumed at this time that the layout of the walls shown in the 2018 preliminary design report will remain unchanged, and that the only change will be from a rockery wall to Redi-Rock walls. As such, conceptual design of the retaining walls will not be necessary. No work by the structural engineer will be performed for this Task.

Wall	Proximity	Length
Wall C1	STA 38+25RT	155 ft

4.6. Conceptual Design Bridge: The project includes one bridge near the beginning of the project that crosses the Palermo Waterway with an approximately 80-ft span. The bridge is called the "Palermo Waterway Bridge" hereafter. The consultant has assumed that the City has accepted the use of a pre-engineered, steel pony truss bridge superstructure with a concrete walking surface. The consultant will work with bridge manufacturers as part of development of the 60% bridge design.

Consultant assumes that the type, size, and location of the new bridge will not change from that shown in the 2018 predesign study. Consultant has assumed that no work will be required for this Task.

4.7. Final Design Retaining Walls: Under this Task, the consultant will progress the design of the retaining walls from the concept level to the contract documents. The wall design responsibilities will follow WSDOT Geotechnical Design Manual, Appendices 15-A and 15-Q for the Redi-Rock pre-approved proprietary walls requirements. The consultant will collaborate with the City and the geotechnical team to determine the settlement requirements.

The consultant will review the site constraints to confirm that the City-standard wall type is feasible in the project. Using the surfaces and approved alignment developed by the civil engineering team, the consultant will create review design sections and evaluate the structural stability of the retaining walls. The consultant will review the geotechnical investigations and collaborate with the geotechnical team to confirm that the standard wall type is feasible. The consultant will review the constructability method of the retaining

walls to explore the impact on the right-of-way and permit requirements. The consultant will provide the geotechnical designer with details for the design of the wall for external stability (sliding, overturning, and bearing), compound stability, and overall (global) stability of the wall. The wall supplier shall be responsible for designing the wall for internal stability (structural failure of wall slope components, including the soil reinforcement, facing, and facing connectors to the reinforcement, and pullout), for all applicable limit states (as a minimum, serviceability, strength, and extreme event). The wall supplier shall also be responsible for designing the railing barrier connection and the distribution of the impact load into the soil reinforcement (if used).

The design will be in accordance with the latest WSDOT Bridge Design Manual, WSDOT Geotechnical Design Manual, and AASHTO LRFD Bridge Design Specifications.

- **60% Retaining Wall Submittal:** The 60% package is a constructability review package.

  The consultant will progress the design to a constructability review stage.
  The consultant will prepare the element sizing and inform SCJ of revisions needed to the plans as needed per the geotechnical, permitting, and right-of-way reviews.

  The cost estimate will be per the structural quantities. The quantities will be based on the structural elements' sizes.

  The consultant will provide the list of required General Special Provisions and project-specific Special Provisions. The project-specific Special Provisions will be developed at a later stage.

- **90% Retaining Wall Submittal:** The 90% package is a pre-contract review package.

  The consultant will address the comments from the previous package.

  The consultant will progress the design to an essentially final PS&E package based on the final geotechnical and hydraulics recommendations.

  The cost estimate and quantities will be updated per the structural quantities.

  The complete project General Special Provisions and the project-specific Special Provisions will be prepared.

- **Retaining Wall Bid Documents Submittal:** The Bid Documents package will be the signed plan (by SCJ), specifications, and Estimate package for the contract advertisement. The consultant will address the comments from the previous package. The consultant will progress the design to the contract-ready level. The bid documents will be sealed by a licensed Professional Engineer (PE) in the State of Washington.

4.8. Final Design Bridge: Under this task, the consultant will progress the design of the bridge structure from the 2018 conceptual design to the Contract documents. The design of the pre- engineered bridge type that was selected in the conceptual design will be reviewed.

The bridge manufacturer is responsible for the design and detailing of the superstructure. Due to the federally funded nature of the project, the project must be set up to allow multiple bidders for the bridge superstructure. The consultant will collaborate with the

possible manufacturers to obtain the superstructure parameters for the substructure design. The consultant will collaborate with other disciplines in the trail features connected to the bridge. The consultant will coordinate with the bridge manufacturers for the details on the trail features connected to the bridge. The superstructure design requirements will be presented schematically in the plans and as a performance-based specification in the project specifications.

In collaboration with the hydraulics and geotechnical engineering teams, the consultant will design the substructure, wingwalls, and approach retaining walls (if needed). To the extent feasible, the substructure will be designed to allow multiple bidder options.

The design will be in accordance with the latest WSDOT Bridge Design Manual, WSDOT Geotechnical Design Manual, AASHTO Guide Specifications for the Design of Pedestrian Bridges, and AASHTO LRFD Bridge Design Specifications.

- **60% Bridge Submittal:** The 60% package is a constructability review package.

  The consultant will prepare the superstructure required documents, review the manufacturer's details and designs. The trail features on the bridge will be identified, located and coordinated with the manufacturer to detail the bridge.

  The consultant will prepare the substructure and foundation sizing and revise the plans as needed per the geotechnical, permitting, and right-of-way reviews.

  The cost estimate will be per the structural quantities. The quantities will be based on the structural elements' sizes and the bridge manufacturers' estimates.

  The consultant will provide the list of required General Special Provisions and project-specific Special Provisions. A draft Special Provision for the bridge superstructure will be prepared for the City's review. The remaining project-specific Special Provisions will be developed at a later stage.

- **90% Bridge Submittal:** The 90% package is a pre-contract review package. The consultant will address the comments from the previous package and progress the design to an essentially final PS&E package based on the final geotechnical and hydraulics recommendations.

  The cost estimate and quantities will be updated per the structural quantities and the manufacturer's quote of the superstructure.

  The complete project General Special Provisions and the project-specific Special Provisions will be prepared.

- **Bridge Bid Documents Submittal:** The Bid Documents package will be the signed plan, specifications, and Estimate package for the contract advertisement. The consultant will address the comments from the previous package. The consultant will progress the design to the contract-ready level. The bid documents will be sealed by a licensed Structural Engineer (SE) in the State of Washington. The signed and sealed bridge superstructure design sheets will be the manufacturer's responsibility, and they will submit them during construction.

4.9. Final Design Trail Features: The project includes structural site elements referred to as trail structures. The trail structures are typical park structures. The type, size, and location of the trail structures are provided by the urban planners.

The consultant will review the standard trail structure for safety. The consultant will also collaborate with the geotechnical engineers to investigate foundation feasibility and assist with determining spacing and height of support poles for netting and parameters of foundation sizing.

Trail Structures	Proximity	Length
Trail Netting	Along segment C	Assume 1000 ft
Trail Fence Canopy	Along segment C	5150 ft

The consultant will progress the design of the trail structures, as specified above, from the 2018 concept level to the contract documents. The trail structures will be manufactured-designed elements. The consultant will be responsible for designing the foundation and the foundation connections, as well as the loading on the supporting retaining walls or other structures. The trail features on the bridges will be addressed in the previous section.

The design will be in accordance with the latest AASHTO LRFD Bridge Design Specifications for guidelines on material design (i.e. reinforced concrete), and LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. The design plans and number of sheets are estimated as shown below:

- **60% Trail Structure Submittal:** The 60% package is a constructability review package.

  The consultant will prepare the foundation sizes and connection details for the trail structures.

  The cost estimate will be per the structural quantities. The quantities will be based on the structural elements' sizes.

  The consultant will provide the list of required General Special Provisions and project-specific Special Provisions. The project-specific Special Provisions will be developed at a later stage.

- **90% Trail Structure Submittal:** The 90% package is a pre-contract review package.

  The consultant will address the comments from the previous package. The consultant will progress the design to an essentially final PS&E package based on the final geotechnical recommendations.

  The cost estimate and quantities will be updated per the structural quantities.

  The complete project General Special Provisions and the project-specific Special Provisions will be prepared.

- **Trail Structure Bid Documents Submittal:** The Bid Documents package will include the signed plan, specifications, and Estimate for the contract advertisement. The consultant will address the comments from the previous package and progress the design to the contract-ready level. The bid documents will be sealed by a licensed Civil Engineer (PE) in the State of Washington.

4.10. Bid Assistance: The consultant will assist the City during the bid period to answer any questions that arise concerning the above structural PS&E documents and will assist the City in preparing any addenda required to the extent of the budget provided in this contract. The consultant will provide this task on an as-needed basis. The consultant shall obtain authorization from the City prior to providing these services.

Task 4 Assumptions:

- *Task 4.1 Project Administration and Management:*
- *One kick-off meeting will be attended by two consultant staff.*
- *One consultant staff member will attend three (3) 30-minute online meetings.*

- *Task 4.2 Public Outreach:*
- *One consultant staff member will attend a 60-minute Public Outreach online meeting.*
- *Public outreach Meeting and material preparation are assumed to be four (4) hours.*

- *Task 4.3 Review Existing Data:*
- *Two consultant staff will attend the site visit.*

- *Task 4.4 Conceptual Design Retaining Walls:*
- *The walls will be City of Tumwater Standard (Redi-Rock retaining wall system). The consultant will confirm that the standard walls are suitable for the site constraints.*
-
- *The proposed cut wall will not require wall guardrailing. Slope will be graded back 2:1 above wall.*

- *Task 4.5 Conceptual Design Bridge:*
- *The bridge superstructure will be a pre-engineered bridge.*
- *City has selected to use a pre-manufactured pony truss with concrete walking surface for the superstructure. The substructure is assumed to be deep pile foundations.*
- *Constructability study is inherent to concept design.*
- *The preliminary substructure design intends to confirm that the bridge construction is feasible and the parameters of bridge type best fit for the site conditions.*

- *Task 4.6 Final Design Retaining Walls:*
- *No utility line will cross the retaining walls.*
- *No detailing will be completed until the final trail alignment is approved.*

- *Task 4.7 Final Design Bridge:*
- *No utility line will be hung from the bridge.*
- *The bridge will be for pedestrian use. The live loads will include a vehicular live load as required by the AASHTO Guide Specifications for the Design of Pedestrian Bridges.*
- *No detailing will be completed until the final trail alignment and bridge type is approved.*

- *Task 4.8 Final Design Trail Features:*
- *The trail fence canopy and trail netting layouts and locations will be provided by others.*
- *The trail structures are designed by the supplier. The consultant will review the design and details to confirm they are consistent with the project requirements.*
- *No detailing will be completed until City approves trail alignment and features.*
- *The structural design trail feature will be performed by the manufacturer.*
- *The soil properties will be sufficiently uniform so that one foundation design will be performed for the segment.*

- *Task 4.9 Bid Assistance:*
- *We estimated up to 12 hours of senior structural engineering time on an as-needed basis.*
- *We estimate up to 8 hours of drafter time on an as-needed basis for any design changes during the bid.*

Task 4 Deliverables:

- *Conceptual Design Retaining Walls – Segment C*
  - *Review Trail plans and email communications.*

- *60% Design Submittal – Segment C*
  - *60% Bridge Plans*
  - *60% Trail Structures Plans*
  - *60% Opinion of Cost*
  - *Draft Pre-engineered Bridge Superstructure Special Provisions.*
  - *List of any General Special Provisions and any Special Provisions.*

- *90% Design Submittal – Segment C*
  - *90% Retaining Wall Plans*
  - *90% Bridge Plans*
  - *90% Trail Structures Plans*
  - *90% Opinion of Cost*
  - *Project Specifications*

- *Signed and Sealed Design Submittal – Segment C*
  - *Signed and Sealed Bridge Plans*
  - *Signed and Sealed Trail Structures Plans*
  - *Cost Estimates*
  - *Project Specifications*

- *Bid Assistance*
  - *Bid questions answer via email or phone.*

5. Task 5 – Hydraulics and Hydrology Services (NHC)

The consultant will provide hydrologic and hydraulic analysis support for the design of Segment C which includes the Deschutes Valley Park Spur (Project) which will start at the Valley Athletic Club parking lot and terminate near the entrance just south of the Deschutes Valley Spur.

Phase 1 will consist of the hydrologic and hydraulic analysis required to support the design at the 30/60/90 percent design level. The hydraulic analysis will be used to assess any impacts the project may have on critical areas / the floodplain and is required to support the NEPA and SEPA permitting process.

5.2. Project Management: Manage budget and schedule, provide internal quality assurance / quality control review of their deliverables prior to submission to the Prime Consultant, and provide monthly progress reports. This task also includes internal coordination between the Project Team.

5.3. Hydrologic Analysis: Design flows have been previously developed for the FEMA Flood Insurance Study for the Deschutes River. The peak discharges developed for that study, including the 10, 25, 50, and 100-year floods will be utilized for the hydraulic analysis. Hours for this task include the effort to obtain the peak discharges, input them into the model, and subsequent model validation.

5.4. Hydraulic Analysis: The hydraulic analysis will be used to assess any impacts the project may have on critical areas and will be used in support of the NEPA and SEPA permitting process. Documentation of any flood plain impacts are also needed as part of this project.

- The FEMA effective one-dimensional HEC-RAS model, developed for the 2014 Flood Insurance Study (FIS), will be used to perform a hydraulic analysis of the Deschutes River in support of the proposed trail design and river crossing.
- The design will be assessed at the 30, 60, and 90 percent submittals. Changes to the design will be incorporated into the HEC-RAS model to ensure that the design continues to meet the FEMA criteria.
- For the proposed design,100-year water surface elevations will be compared to existing conditions as published in the FIS and the differences summarized in the Hydraulic Technical Memo.
- Coordination with the proposed channel protection project that is occurring upstream of this trail project to ensure the channel protection project has the changes to their downstream condition.

5.5. Hydraulic Technical Memo: At the 90 percent level, prepare a Draft Hydraulics Technical Memo that documents the hydrologic and hydraulic analysis and design FEMA rise criteria and submit for review. Prepare a response to review comments and incorporate changes into a Final Hydraulic Technical Memo.

5.6. Permit Support: This task encompasses as-needed permitting support that may be needed by the design team. Examples of permit support may include answering questions by the permitting team, preparation of figures in support of permitting documents, and filling out any NEPA or SEPA documentation.

Task 5 Assumptions:

- *Task 5.1:*
- *There will be a virtual project kickoff meeting between the Client, Prime Consultant, and one (1) consultant staff member lasting one (1) hour.*
- *There will be bi-weekly virtual coordination meetings with the Prime Consultant and one (1) consultant staff lasting up to thirty minutes.*

- *Task 5.2:*
- *No additional hydrologic inputs or analysis will be performed.*

- *Task 5.3:*
- *At the 30 percent design level, the existing one-dimensional HEC-RAS model developed for the Deschutes River FIS will be obtained from FEMA and used for the analysis of the existing condition. If the model developed for the FIS has been updated with more recent geometry, the City will obtain and provide the most recent model. This model will be considered the Base Model.*
- *For the analysis of the proposed design, a duplicate effective one-dimensional HEC-RAS model will be developed from the Base Model.*
- *The Base Model obtained at 30 percent will be carried through the project duration.*
- *The hydrologic data developed as part of the Hydrologic Analysis task will be incorporated into the hydraulic model.*

- *The Phase 1 design will not include any work or encroachments in the regulatory floodway. A zero-rise floodway analysis is not included in this SOW.*
- *The upstream channel protection project is upstream of this project and will not affect water surface elevations at our project site. The trail project could affect water surface elevations at the channel protection site and some coordination with them is needed.*
- *The proposed design will not result in an increase in Base Flood Elevation. Therefore, this SOW does not include time and materials for a Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR).*

- *Task 5.4:*
- *One round of City review comments on the 90% Draft Hydraulics Memo will be addressed as part of the final submittal.*

- *Task 5.5:*
- *Permit Applications will be prepared and coordinated by the consultant.*

Task 5 Deliverables:
- *Task 5.1:*
- *Monthly invoices and progress reports.*

- *Task 5.2. & 5.3:*
- *Results will be summarized in a Hydraulic Technical Memo.*

- *Task 5.4:*
- *Draft 90% and final Hydraulics Report in electronic pdf format*
- *Electronic copy of the HEC-RAS model used for the hydraulic analysis.*

6. Task 6 – Arborist Services

The consultant will provide arborist analysis and observation support for the design of Segment C and the Deschutes Valley Park Spur.

6.1. Background Document Review and Conceptual Site Walk: The consultant will examine the background documents, focusing on previous designs, historical aerials, as well as park, trail, and master plans for Tumwater and Thurston County. This review period will also include an examination of the municipal code.

Before the design process begins, the consultant will visit the site to provide a general assessment and familiarize themselves with the area and the extent of potential tree impacts.

6.2. Tree Health Assessment: Tree Assessment shall be provided by the consultant for the project. The tree assessment will determine existing trees' health and long-term viability along the edge of the trail. The assessment will examine existing trees' age, trunk diameter, structural integrity, biological impacts, expected canopy size, and tolerance to construction impacts. The arborist shall note how canopy size and trunk placement can adversely impact the visibility for vehicles, pedestrians, and bicyclists.

6.3. Design Review: As the design advances through the preliminary, 30%, 60%, and 90% submittal phases, the consultant will review potential tree conflicts and propose solutions to maximize preservation. This process includes site visits with the Consultant and Client to evaluate and refine solutions in the field.

During the design review, the consultant will define tree protection zones to be

incorporated into the construction plan set. In addition, the consultant will identify specific interaction zones where innovative strategies are applied to support preservation goals. Tree protection specifications and associated strategies will be added into the existing preliminary arborist report.

6.4. Public Involvement: The consultant will be part of the public process, as requested by the Consultant and Client, to address public concerns about trees and the landscape. The consultant will create graphics to assist in understanding the interaction between the trees and the proposed design.

6.5. Final Design Communication: The consultant arborist findings shall be incorporated into the final trail design and will consider the proposed improvements and if the removal and replacement of existing trees will better serve not only the improvements but also the long-term health of the urban forest as it relates to the trail alignment

6.6. Bid Period Services: The consultant will be available to answer any pre-bid questions.

Task 6 Assumptions:

- *The current Tumwater Municipal Code will be applied to the project.*
- *One visit as part of the tree health assessments.*
- *One site visit with the Client during the design review.*
- *graphics for one four-hour public meetings, including preparation strategy meetings.*
- *Tree information collected will be used to determine trail alignment and recommendations for tree removal or the adjustment of the trail. The consultant will attend one pre-bid walk-through, if required.*
- *The consultant has not scoped time for grant application assistance.*
- *The consultant will provide the consultant with the survey in a format compatible with AutoCAD Lt for the initial tree assessment.*
- *The consultant will update the consultant bi-monthly on the project's progress, schedule, and expectations.*
- *City will provide any available prior arborist reports performed along the stretch of the Deschutes Valley Trail.*

Task 6 Deliverables:

- *Task 6.2:*
- *CAD files indicating critical root zones*
- *Spreadsheet detailing specific trees of concern*

- *Task 6.3:*
- *Construction details for tree interactions*
- *Tree protection specifications addressing final design*
- *Tree assessment arborist report (preliminary report)*

- *Task 6.4:*
- *Graphics for public involvement, discussing trees in project boundaries*

- *Task 6.5:*
- *Arborist information shall be used on the plan as required for all phases of design and shall be noted on the design plan.*

7. Task 7 – Cultural Resources Services (SWCA)

The consultant will provide cultural resources support for the design of Segment C which includes

Deschutes Valley Park Spur (Project) which will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park.

The purpose of this task is to conduct cultural resources analyses needed to comply with Section 106 of the National Historic Preservation Act. The analyses will supplement and extend previous analyses completed by SWCA/NWAA (Shantry and Piper 2012).

7.1. Section 106 Regulatory Assistance and Client Coordination: The use of FHWA funds subjects the project to compliance with Section 106 of the National Historic Preservation Act. Under Section 106, FHWA must consider the effects of the project on historic properties. FHWA delegates certain Section 106 responsibilities to WSDOT. The Consultant will prepare Section 106 correspondence for the City to submit to WSDOT Local Programs to request WSDOT/FHWA initiate Section 106 consultation. The correspondence will provide a project description, map of the proposed Area of Potential Effects (APE) for the project, and proposed methods for evaluating potential effects.

7.2. Background Research: The Consultant will conduct background research of the Segment C and Deschutes Valley Park Spur trail segments, with a main goal to identify the probability for buried archaeological sites to be present within the project area. Research will include a records check at the Department of Archaeology and Historic Preservation's (DAHP) WISAARD database to identify any archaeological sites or historic structures within the project area. Other sources may include available nearby geotechnical data, the University of Washington Libraries, and SWCA's internal library. SWCA previously conducted background research for other segments of the trail, which will form the basis for this work.

7.3. Archaeological Survey: SWCA will conduct archaeological survey along Segment C and spur. Prior to survey, SWCA will request the completion of a One-Call utility locate in accordance with Washington State law. Archaeological survey shall consist of pedestrian reconnaissance ("surface survey") and excavation of up to 8 shovel probes at locations deemed to be "high probability" for buried archaeological resources by the consultant, based on its observations during the pedestrian reconnaissance. During pedestrian reconnaissance, SWCA will assess the presence/absence of culturally modified trees (CMTs). Probes will be excavated using a round nosed shovel with spoils screened on to a tarp. Probes will measure 30-40 cm in diameter and extend to 1) 1.0 meter; 2) intact glacial deposits, or 3) until impassable conditions are encountered (whichever comes first). Artifacts (if encountered) will be documented in the field; surface artifacts will be left in place, excavated artifacts will be reburied in the shovel probe from which they originated. Probes will be backfilled upon completion.

7.4. Historic Property Inventory: The Tumwater Valley Golf Course is older than 50 years and, therefore, meets the minimum age threshold for listing on the National Register of Historic Places and needs to be studied as part of this undertaking for compliance with Section 106 of the NHPA.

Architectural History Background Research
The Consultant Architectural Historians will conduct a mixture of in-person and digital research on the history of the region and the individual properties located in the APE, focusing specifically on the Tumwater Valley Golf Course. The background research will include a search of online newspaper articles, archival documents, historical maps, photographs, building permits, and other relevant information available from local libraries and historical societies, as well as online repositories and databases.

Architectural Survey & Documentation
The Consultant will conduct an architectural history/built environment survey of the APE, focused on the historic- age properties present. The Consultant staff will conduct a Historic Property Inventory (HPI) of the golf course, document it on a SHPO HPI form, and provide a recommendation regarding its eligibility for listing in the National Register of Historic Places (NRHP), as well as an analysis of potential effects of the project to the golf course, including any impacts to its historic integrity. The documentation will be conducted and reviewed by architectural historians who meet the Secretary of the Interior's Professional Qualifications Standards for Architectural History and History. All documentation will be prepared in accordance with guidance published by DAHP and the National Park Service.

7.5. Cultural Resources Assessment Technical Report: The Consultant will prepare a Cultural Resources Report that will meet the reporting standards requirements of DAHP and the Secretary of the Interior and assist in meeting the requirements of the Section 106 review. The report will supplement and extend background research previously prepared by SWCA/NWAA. In preparing the report, the consultant will review and incorporate, as needed, project designs, maps, descriptions, and existing and new geotechnical borings. The report will provide results of the archaeological survey and historic property inventory, recommendations regarding the NRHP eligibility of cultural resources, and recommendations for any follow-on work. If approved by the city and the USACE, the Consultant will submit the final Cultural Resources Report to WISSARD for DAHP review.

7.6. Archaeological Resources Inadvertent Discovery Plan: The consultant will prepare an Archaeological Resources Inadvertent Discovery Plan (IDP) for use during project construction. The IDP will contain any special provisions required by WSDOT/FHWA.

Task 7 Assumptions:

- *Up to 8 shovel probes will be excavated. No subsurface site boundary delineation will be necessary.*
- *WSDOT/FHWA will consult with SHPO, Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation.*
- *City will obtain/furnish rights-of-access.*
- *City will notify Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation of the survey and invite representatives to observe the work.*
- *Up to one cultural resources technical report will be developed under this scope of work including both archaeological investigation results and architectural history assessment results.*
- *Up to one Inadvertent Discovery Plan will be developed under this scope of work.*
- *Up to 1 archaeological site will be encountered and recorded. CMTs may be recorded as an archaeological site.*
- *Up to 1 HPI form will be prepared for the golf course.*
- *The HPI will be prepared at the Reconnaissance Level, as outlined by DAHP.*
- *The consultant will review existing and new geotechnical data for the project but will not conduct archaeological monitoring during new geotechnical investigations.*
- *City will be allowed one round of review on all draft deliverables.*
- *Document revisions will require up to 4 hours of SWCA labor to address.*
- *No mitigation tasks are included in this scope.*
- *SWCA's ability to conduct fieldwork will be unimpeded by access restrictions (e.g., fences, locked gates, etc.), road construction, wildfires and air quality, landowner restrictions, COVID-related restrictions, or any other factor(s) outside of SWCA's control.*
- *No artifacts will be collected or curated. If necessary SWCA will collect and prepare artifacts for curation under a new scope of work and for an additional fee.*

Task 7 Deliverables:

- *Draft and final Section 106 regulatory letter and map.*
- *Draft and final archaeological site form.*
- *Draft and final Historic Property Inventory form.*
- *Draft and final Cultural Resources Assessment Technical Report.*
- *Draft and final Archaeological Resources Inadvertent Discovery Plan.*

8. Task 8 – Environmental Fieldwork and Mitigation (DEA)

Predesign Analysis: The purpose of tasks 8.1 and 8.2 is to collect information on existing environmental conditions within the project alignment, evaluate potential impacts from the project, and identify avoidance, minimization and mitigation opportunities in order to inform the conceptual design and to assist in comparing design alternatives.

8.1. Data Collection and Preliminary Site Investigation: This task includes reviewing background information and conducting limited site investigations to document onsite critical areas, as well as using available mapping and data to identify all other critical areas that may be present onsite for Segment C which includes the Deschutes Valley Pak Spur. Prior to the site visit, the Consultant will review publicly available GIS data and reports, reports and data provided to the Consultant by the City as well as other pertinent background information (e.g., historic aerial photos, etc.) to identify the presence of potential critical areas prior to conducting the field effort. Existing data that will be reviewed include the City of Tumwater and Thurston County critical area mappers, aerial photographs, NRCS hydric soils mapping, Pocket Gopher Soil Suitability Maps, National Wetland Inventory (NWI) maps, SWIFD fish distribution data, WDFW PHS data for species and habitat type, and the DNR Washington Natural Heritage Program (WNHP) plant data for sensitive plant species, among others.

Subsequent to data review, the Consultant will perform field investigations for Segment C consisting of:

- Wetland and stream delineations along both sides of the proposed alignment. Study area will be smaller in some areas where location of the trail is more certain (e.g., adjacent to Tumwater Valley Drive), and larger in areas where alignment shifts are more likely (e.g., river crossing).

The Consultant will delineate wetland boundaries in accordance with methods defined in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (US Army Corps of Engineers [Corps] 2010) and the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987). Wetland boundaries will be flagged and flag locations will be recorded using a hand-held GPS unit.

In addition to delineating the boundaries of any observed wetlands, the consultant will complete a wetland rating form as described in Washington State Wetland Rating System for Western Washington: 2014 Update Version 2.0 (Ecology Publication No. 23- 06-009). The consultant will use the results of the wetland rating to identify applicable wetland buffer extents per the City of Tumwater buffer standards in TMC 16.28.170.

The Consultant will delineate the ordinary high water mark (OHWM) of any streams observed on or near the site according to the methods in Ecology's Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington

State. These flags will also be recorded using a hand-held GPS unit, and photographs will be collected to characterize typical conditions.

Following the delineation, the Consultant will determine stream type using the definitions in WAC 222.16 and TMC 16.32.050. Applicable riparian buffer extents will be identified per the City of Tumwater buffer standards in TMC 16.32.065.

The boundaries of all delineated wetlands and stream/OHWMs will be surveyed in the field by a PLS (see Task 2).

For those wetlands and streams where a reconnaissance level investigation is deemed appropriate (such as on adjacent properties), the Consultant will estimate the boundaries of such features using information from previously prepared maps, supplemented by field observations and data collected with a hand-held GPS unit. Appropriate wetland ratings and stream types will also be estimated, to assess appropriate regulatory buffers. This information will be incorporated into the project basemap.

8.2. Mazama Pocket Gopher (MPG) Screening Survey (Important to start ASAP): Suitable soil conditions for the Olympia and Yelm Pocket Gophers, both listed under the Endangered Species Act as Threatened, are present on portions of the project site. The consultant will conduct two site surveys according to the methodology and timing requirements in the USFWS Mazama Pocket Gopher (MPG) Screening Protocol Checklist (2018). According to the checklist, sites containing less-preferred soils and are more than 600 feet from a known MPG occurrence will be visited two (2) times, at least 30 days apart. The appropriate window for site visits is between June 1 and October 31. The consultant will include the results of the surveys in the Biological Assessment, if timing allows the inclusion. The BA will also include language that commits the City will not construct in MPG habitat, unless pocket gopher survey occurs in the season prior to construction and this survey yields negative results. In addition, the Consultant will coordinate with USFWS pocket gopher staff to determine previous survey efforts in the project vicinity, document the nearest known MPG occurrence, and establish if any previous survey data exists that pertains to the project area. This scope of work includes a potential third (3rd) site visit in the event that it is requested/required by USFWS.

Final Design: For the following Task 8 elements, the Consultant will delineate any remaining wetlands and streams along Segment C, prepare documentation for local, state, and federal environmental permits and approvals, and develop appropriate compensatory mitigation for critical areas impacts. With the exception of the specific permit applications and documents discussed below, no other documentation is included in this scope. It is assumed that the project will have direct impacts to wetlands and/or streams, therefore a U.S. Army Corps of Engineers Clean Water Act 401/404 permit and a Washington Department of Fish and Wildlife Hydraulic Project Approval will be required. The presence of a federal nexus, through CWA Corps permits, will require adherence with Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA). In addition, it is assumed the project will successfully acquire federal funding, triggering compliance with the National Environmental Policy Act (NEPA).

8.3. Meetings and Coordination: This task is for regular communication and coordination with the project engineers, technical staff, City staff, and for agency coordination. This includes one onsite meeting with WDFW to determine stream impacts and fish distribution, and up to two meetings with the Army Corps of Engineers (Corps), prior to JARPA submittal, and one meeting with other regulatory authorities. Environmental permitting support is expected to last approximately 12 months but may extend to 24 months.

8.4. Biological Assessment Preparation: The Consultant will prepare a biological assessment (BA) for Segment C, to comply with Section 7 of the Endangered Species Act as triggered through permitting by federal agencies (i.e., FHWA). The BA will include an evaluation of the potential direct and indirect effects of the project on federally listed threatened, endangered, and proposed species and critical habitats. The Consultant will also complete the analysis of the environmental baseline, interrelated and interdependent actions, cumulative effects, and address Essential Fish Habitat (EFH). The BA will be prepared following US Fish and Wildlife (USFWS) and National Marine Fisheries Service (NMFS) guidelines (collectively known as the Services) and will adhere to the standards of WSDOT. We assume that federal funding through WSDOT will be secured for project construction and that WSDOT review of the BA will be required.

Based on the presence of listed species and habitats within the action area, potential project impacts the assumption for this scope is that a BA effect finding of either " May effect, not likely to adversely affect" or "no effect" is likely appropriate for other wildlife species, while the project will have "no effect" on all fish species due to lack of distribution in the Action Area.

8.5. Critical Areas, Habitat Management Report and Mitigation Plan: Based on the background review of publicly available information regarding critical areas and field work to define and classify wetlands and streams, combined the consultant will prepare a Critical Areas Report (CAR) that addresses wetlands and Fish and Wildlife Habitat Areas along Segment C, in accordance with the requirements in TMC 16.28.140 and 16.32.090.

It is anticipated that the project will impact wetlands, Fish and Wildlife Conservation Areas (FWCAs) buffers, and regulatory buffers for these features. The project will also require analysis of Geologically Hazardous Areas (TMC 16.20), which will be contained in the geotechnical report (see geotechnical services). For other regulated critical areas, it is assumed that the project will not negatively impact critical aquifer recharge areas.

The Critical Areas Report and Mitigation Plan will include the following elements:

- Executive Summary
- Introduction (purpose of the report)
- Project narrative (location, purpose and description, project schedule, responsible parties)
- Impact assessment (landscape setting, existing conditions of wetlands, streams, and buffers to be impacted, impact calculation summary tables, narrative of permanent and temporary impacts to wetlands, streams and buffers, discussion of affected functions).
- Mitigation strategy (avoidance and minimization of wetland impacts, proposed compensatory mitigation concept);
- Description of compensatory mitigation site (existing wetland acreage, vegetation, wildlife habitat, landscape position and watershed relationship, existing hydrologic regimes, topography, soils and substrate, buffer condition and function)
- Ecological processes, current and proposed
- Construction Schedule and timing restrictions
- Proposed design elements (grading, proposed mitigation activities and wetland acreage, hydrologic regimes, proposed soil conditions, planting zones, and species lists)
- Mitigation goals, objectives, and performance standards;
- Proposed site maintenance and monitoring plan (time period to be determined)

- Contingency Plan
- References;
- Appendices (site selection forms, credit-debit forms)

The report will include a detailed mitigation plan, that will be developed in parallel to the CAR as outlined in Task 8.6 and 8.7, below.

8.6. Mitigation Feasibility Assessment: The Consultant shall provide assistance to the City in evaluating the feasibility of sites for natural resources mitigation associated with Segment C. consistent with both Tumwater Critical Areas code and Corps requirements. This mitigation feasibility evaluation will consist of a review of three alternatives: mitigation bank/in-lieu fee credits; on-site mitigation; and an evaluation of up to two City-owned off-site properties in the vicinity.

A site reconnaissance and functional assessment will be conducted for the onsite and City-owned properties to evaluate each site's suitability as mitigation for the project's mitigation needs. The analysis will be based on the criteria outlined in Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology 2009), and will include the following steps:

- Watershed based identification of suitable sites – solicit input from agency staff on potential mitigation sites in the watershed.
- Field reconnaissance for two (2) site visits to assess existing conditions and current functions at potential mitigation sites.
- Prepare preliminary concept sketches to assess potential functional lift/wetland credits available at the sites.

The results of the site analyses will be documented in a Mitigation Feasibility Memorandum. Following review and concurrence from the Lead Agency and key stakeholders, a single site will move forward for incorporation in the Critical Areas Report and Habitat Mitigation Plan.

A formal wetland and FWHCA delineation will be conducted at the selected mitigation site, including final rating and functional assessment.

8.7. Mitigation Design: The proposed mitigation design will be incorporated into the design plans, and will include the following elements:

- Cover Page with location map and Index (2 sheets)
- Grading plans and profiles (2 sheets)
- Site details (1 sheet)
- Landscape Plans showing proposed mitigation types, planting zones, habitat features, and plant species lists (2 sheets)
- Irrigation Plans (1 sheet)
- TESC Plans and Details (2 sheets)
- Draft Specifications (2 sheets)
- Draft Monitoring Plan – narrative (2 sheets)
-

Task 8 Assumptions:

- *The Critical Areas Report and Mitigation plan will be submitted with the NEPA CE form and*

will serve as sufficient NEPA documentation of streams and wetlands.

- *The Consultant will base its Biological Assessment on 60% Design Drawings and technical reports, once developed. This will include detailed information on existing and new impervious surfaces and proposed stormwater treatment and detention.*
- *This Task includes a single round of City review for the Draft BA. The City is responsible for consolidating comments from multiple reviewers and resolving any inconsistencies. Draft BA (provided electronically in MSWord and PDF format).*

Task 8 Deliverables:

- *The Consultant will attend up to three meetings with regulatory agencies.*
- *Draft BA (provided electronically in MSWord and PDF format).*
- *Final BA (provided electronically in MSWord and PDF format)*
- *Draft Critical Areas Report, Habitat Management Report, and Mitigation Plan*
- *Draft Critical Areas Report, Habitat Management Report, and Mitigation Plan*
- *Draft Mitigation Feasibility Memorandum*
- *Draft Wetland and FWHCA Delineation, Selected Mitigation Site*
- *Draft Mitigation Design Sheets (14 plan sheets)*
- *Final Mitigation Design Sheets (14 plan sheets)*

9. Task 9 – Environmental Compliance and Permitting

Predesign Analysis: The purpose of tasks 9.1 is to collect information on existing environmental conditions within the project alignment, evaluate potential impacts from the project, and identify avoidance, minimization and mitigation opportunities in order to inform the conceptual design and to assist in comparing design alternatives.

9.1. Environmental Permitting Evaluation / Alternative Comparison: The Consultant will evaluate the preliminary design options with a review of field data to inform the development of a permit matrix for Segments A2, B, D, and Palermo Spur describing all relevant local, state, and federal environmental permits and approvals anticipated on the project. The matrix will describe regulated activities/permit triggers, submittal requirements, and estimated permit review timelines. In addition, the matrix will specifically call out elements that have a substantial risk to negatively affecting future project phases, including scope, schedule, and budget, and will make recommendations on strategies to manage said risk. The matrix will compare up to three design alternatives/options to compare potential permitting implications.

9.2. Communication & Coordination: This task is for regular communication and coordination with the project engineers, technical staff, City staff, and for agency coordination. This includes one onsite meeting with WDFW to determine stream impacts and fish distribution, and up to one meeting with the Army Corps of Engineers (Corps), prior to JARPA submittal, and one meeting with other regulatory authorities. Environmental permitting support is expected to last approximately 12 months but may extend to 24 months.

9.3. NEPA: The anticipated involvement of federal funds from WSDOT/FHWA would trigger the requirement for the project to comply with the National Environmental Policy Act (NEPA), with FHWA as the federal lead agency. Prior to the commencement of work on the project, the scope and level of documentation for each discipline area will be confirmed by the City and WSDOT. The Consultant will coordinate with the City and WSDOT Local Programs staff to determine the appropriate approach for environmental review and documentation. The project assumptions will be discussed with WSDOT to confirm the approach. For the purposes of this scope, it is assumed that a DCE

(Documented Categorical Exclusion) is the appropriate level of NEPA documentation. It is assumed that no technical memoranda will be needed to document the existing conditions and lack of adverse effects other than those described herein.

The Consultant will prepare a Draft and Final WSDOT CE Form for the project, limited to Segment C, to document compliance with NEPA. The CE Form will be completed per the guidance and requirements in the WSDOT Environmental Manual and the Local Programs CE Guidebook at the time a notice to proceed is received by the Consultant and using existing information from the technical reports completed for the project, the project design plans, and other available information. This task includes up to two meetings with WSDOT Local Programs environmental staff.

9.4. JARPA Preparation: The Consultant will prepare a Joint Aquatic Resources Permit Application (JARPA) to support the City in obtaining federal permits from the Corps under the Clean Water Act sections 401 and 404 impacts along Segment C. These permits will be needed for anticipated as direct impact to Waters of the U.S. (wetland and streams). Based on the preliminary project information, it is assumed that the project will qualify for a Nationwide Permit (NWP) 14 for Linear Transportation Projects (under 0.5-acre of permanent fill). This scope assumes the project will require a Section 401 permit from the Washington State Department of Ecology (Ecology), which will be submitted concurrently with the Corps 404 permit. The permit package will also include documentation to obtain a coastal zone management (CZM) Federal Consistency Decision from Ecology. The Consultant will prepare a set of permit drawings in the format required by the Corps to accompany the JARPA. The JARPA application will include the Critical Areas Study and Mitigation Plan (see Task 8.7).

9.5. SEPA: It is assumed the NEPA document (Task 9.3, above) will be adopted for State Environmental Policy Act (SEPA) purposes and a separate Checklist will not be required. The Consultant will prepare a Draft and Final Notice of Adoption to comply with SEPA requirements for Segment C.

9.6. WDFW HPA: The Consultant will work with City staff to comply with state Hydraulic Code permitting requirements and will prepare an application for a Hydraulic Project Approval (HPA) for Washington Department of Fish and Wildlife (WDFW) that will permit any in-water and overwater work associated with stream crossings along Segment C. The application will be based on the 90% plan set, the technical reports described herein, and permit materials prepared for other approvals. The HPA will be submitted electronically, through the Washington State Aquatic Protection Permitting System (APPS).

9.7. Shoreline Substantial Development Permit: Based on City Code, it is anticipated that development will occur within the shoreline zone of the Deschutes River and will require a Shoreline Substantial Development Permit (SDP) under the Shoreline Master Program (SMP). The project will result in water-enjoyment use for recreation in a shoreline designation of “Urban Conservancy”, per the Shoreline Master Program. The Consultant will utilize the JARPA narrative and supporting materials for a Shoreline Substantial Development application, supplemented with a Shoreline Master Program Evaluation Report and a site plan adhering to City standards to complete the required materials for the permit submittal. Attendance of Consultant staff at the required shoreline permit public hearing is included in Task 9.2 – Communication and Coordination.

9.8. Coordination of Trail Design with EPA/DOE: The existing treatment lagoon for the Palermo Wellfield Superfund Site Cleanup lead by EPA and WSDOT will be immediately adjacent to the beginning of Segment C. Groundwater at the site is contaminated with tetrachloroethene (PCE) and trichloroethene (TCE). The sources of contamination are

the Southgate Dry Cleaners and WSDOT materials testing laboratories located near Capitol Boulevard. Contaminated groundwater flows in the direction of the Palermo neighborhood and City wellfield. In the early 2000s, EPA constructed a subdrain at western edge of the Palermo neighborhood. The subdrain captures contaminated groundwater and discharges it to the treatment lagoon. The treatment lagoon has several aerators that treat the contaminants through volatilization to the atmosphere. Treated water from the lagoon is discharged to a ditch that empties into the Deschutes River. The trail alignment shall be coordinated with the EPA Remedial Project Manager. The City will provide an email with the basic information requested by EPA.

Task 9 Assumptions:

- *The City of Tumwater has requested NEPA be included in this SOW with anticipation that federal grants will be secured for construction funding.*
- *The Consultant will prepare only the environmental permits and approvals specifically referenced in Final Design, Task 8 and 9.*
- *All City comment/edits made to the permit applications or documents will be provided in track changes mode and comments from multiple reviewers will be consolidated, with any discrepancies resolved, by the City.*
- *For purposes of this scope of services, the Consultant has assumed that the City will be the SEPA lead agency and that they will issue a SEPA determination consistent with their SEPA rules.*
- *The Consultant assumes that any technical documents necessary for NEPA review outside the scope of this scope will be provided by the City.*
- *The Project will not increase traffic capacity and therefore is not subject to air quality conformity analysis requirements, nor will a noise assessment be required under NEPA.*
- *The Consultant assumes that project activities comply with the requirements and conditions of Nationwide Permit (NWP) 14, Linear Transportation Project, including direct wetland impacts of less than 0.5 acre.*
- *The project will not trigger a Section 404 Individual Permit. If an individual permit and 404(b)(1) alternatives analysis are required, an amendment to this SOW will be necessary.*
- *The Consultant will prepare JARPA plan sheets to Corp specifications to accompany the JARPA application. It is anticipated that up to 12 sheets will be required to illustrate existing conditions, project impacts, and proposed mitigation actions.*
- *On the JARPA, the Consultant will be the owner and owner's representative authorized agent and the City will serve as the project owner and signature authority.*
- *ESA documentation will result in no impacts and not require individual consultation.*

Task 9 Deliverables:

- *The Consultant will attend up to three meetings with regulatory agencies.*
- *Draft NEPA CE form and 4(f) technical memo for comments by the City*
- *Final NEPA CE form and 4(f) technical memo for City signature and submittal to WSDOT*
- *Draft JARPA form and permit drawings for City review.*
- *Final JARPA form and permit drawings for submittal to the Army Corps of Engineers and Department of Ecology.*
- *Draft SEPA NOA (provided electronically in MSWord format).*
- *Final SEPA NOA – (provided electronically in Adobe PDF format) includes edits based on one round of review comments by the City.*
- *Draft HPA application and submittal of Final HPA application through APPS*
- *Draft Shoreline Substantial Development Permit and Memo*
- *Final Shoreline Substantial Development Permit and Memo*

10. Task 10 – Stormwater Analysis and Design

The purpose of this task is to develop new and revised stormwater conveyance and flow control/management systems to support the proposed trail improvements and City requirements. This project is subject to Department of Ecology Western Washington Stormwater

Manual (Ecology 2024) which is a requirement of federal funding requirements. This scope shall also adhere to other requirements of the effective July 1, 2022 City Drainage Design and Erosion Control Manual (DDECM) Requirements which is equivalent to the Washington State Department of Ecology Stormwater Management Manual for Western Washington (Ecology 2019)., whichever is more stringent.

10.1. Data Collection & Prelim Site Investigation: The Consultant will review available existing storm drainage infrastructure data, reports, models, and record drawings. The Consultant will visit the site to observe and verify existing drainage features, flow patterns, topography, stormwater outfalls, and potential locations for BMPs. Off-site analyses will be conducted as required by applicable stormwater code.

10.2. Predesign Analysis: There have been significant changes to the stormwater code since the preliminary design was completed. These changes will likely require a more complex design and documentation process than what is shown on the preliminary plans. The Consultant will document the differing requirements and needs as part of the practical design review process.

The Consultant will review the previously developed stormwater and drainage design documents prepared by others, if any. The Consultant will identify and document discrepancies between conditions and assumptions that were incorporated into the prior design work, and those of the current site conditions observed in the prior task. Where changed site conditions impact the ability to advance the prior stormwater design, such constraints will be documented in a memorandum for discussion and resolution with the City prior to initiating additional design work.

The Consultant will inform the City about alternative means of meeting stormwater requirements that may be beneficial to the project in terms of reduced costs, addressing permitting constraints, and/or improving the project delivery schedule. The Consultant will meet with the City to discuss the findings of the practical stormwater design review and confirm the project approach to drainage and stormwater to be used in finalizing the design; decisions made will be documented and incorporated into the project basis of design documents.

Analysis of Existing Conveyance System(s) & Outfall(s): The Consultant will review existing stormwater conveyance facilities within the project limits and identify all existing discharge points which includes area take-offs; identify threshold discharge areas (TDAs) based on existing site conditions; and develop a summary of existing drainage patterns to receiving waters and identification of any downstream drainage issues for inclusion in the stormwater reporting.

10.3. Final Stormwater Analysis and Design

Design of New Conveyance System(s): The Consultant will prepare horizontal layout(s) of new drainage structures and conveyance pipes needed to drain the proposed trail surfaces and provide continuity of existing drainage systems.

Design of On-Site Stormwater Management BMPs: The Consultant will evaluate within each TDA the feasibility of On-Site Stormwater BMPs identified in the Drainage Design and Erosion Control Manual for Tumwater. The Consultant will perform sizing and hydraulic design computations for feasible BMPs and develop designs that will be

incorporated into the PS&E for the project.

Endangered Species Act (ESA) Stormwater Design Checklist: The Consultant will prepare Preliminary, Draft and Final checklist and figures in support of NEPA and Biological Assessment and federal environmental permits.

Drainage Control Plan (DCP) Reports: The Consultant will prepare Draft and Final DCP Reports to accompany the 60% and 90% Design Packages, respectively.

10.4. Stormwater Pollution Prevention Plan (SWPPP)

The Consultant will prepare a stormwater pollution prevention plan in support of project land use permits. The plan will be prepared to maximum extent feasible except for finalizing sections of the plan that require Contractor references and means and methods that will be finalized during construction.

10.5. NPDES Permit

The consultant will prepare and submit the NPDES permit through Department of Ecology after the 90% plans have bene completed and submitted to the City.

Task 10 Assumptions:

- *A Drainage Scoping will be required for this project and will be included as part of Task 10.2.*
- *This project is subject to Department of Ecology Western Washington Stormwater Manual (Ecology 2024) which is a requirement of federal funding requirements. This scope shall also adhere to other requirements of the effective July 1, 2022 City Drainage Design and Erosion Control Manual (DDECM) Requirements which is equivalent to the Washington State Department of Ecology Stormwater Management Manual for Western Washington (Ecology 2019)., whichever is more stringent on stormwater requirements.*
- *A Drainage Control Plan is required.*
- *This scope and fee are based on up to 7 stormwater Threshold Discharge Areas within the project limits.*
- *Site stormwater data collection will require two staff for up to 8 hrs total per staff, including travel time.*
- *Backwater analyses of stormwater conveyance features is not required.*
- *The proposed non-motorized trail surface is not considered a Pollution-Generating Impervious Surface (PGIS). As such, water quality treatment measures are not anticipated to be required.*
- *Dispersion will be used for flow control.*
- *PIT Tests (Pilot Infiltration Test) is not included in this scope. A preliminary grain size sieve analysis for preliminary infiltration rates will be provided by the consultant.*
- *The Consultant will prepare and submit SWPPP to maximum extent feasible during design in support of project and permitting requirement. The Contractor will be required to finalize preparation and submit final SWPPP report to the City prior to construction.*

Task 10 Deliverables:

- *Stormwater Predesign Analysis Memorandum (PDF) to be submitted with Task 12.*
- *Endangered Species Act (ESA) Stormwater Checklist (PDF) to be submitted with Task 8 Biological Assessment.*
- *Draft Drainage Control Plan Report (PDF) submitted with the 60% Design Package.*
- *Final Drainage Control Plan Report (PDF) submitted with the 90% Design Package.*
- *Stormwater Pollution Prevention Plan (PDF and word document)*

11. Task 11 – Public Outreach

The purpose of the Public Outreach task is to solicit feedback and confirmation of the existing design to-date with key stakeholders and any future proposed design(s) recommendations that result from Task 12 and the subconsultants preliminary analyses of the plans and existing conditions. This work also includes providing updates to the stakeholders and the public during the design and permitting process.

11.1. Public Outreach Materials: The Consultant shall prepare presentation and graphic support materials for public outreach and City/Stakeholder design meetings. This may include visual rendered graphics, mailers, and photo sim mockups for design elements under consideration, such as intersection control features, signage, urban design features, and other outreach materials to support solicitation of feedback from the stakeholders and the public. Other types of outreach materials may include content for City website updates and create and help launch online public surveys for a Public Open house. The Consultant is also available to prepare and provide graphic materials for outdoor display boards, and mailers to provide information on public engagement, upcoming presentations, and project milestone dates. A budget of approximately $17,000 or approximately 120 hours of material preparation has been added to the Contract. The Consultant will not start work on materials until specific request of graphics and effort have been requested by the Client. At that time, the Consultant will provide level of effort and hours required to prepare those materials

11.2. Predesign Analysis Stakeholder Engagement: The Consultant shall attend and facilitate the following public outreach meetings below during the research and alternatives analysis stage at the request or recommendation of City. The goal of these early stakeholder meetings is to listen and solicit feedback on the 2018 design, determine if stakeholder needs have changed, determine appropriate project design elements for the trail corridor, and vet ideas to advance the project vision from the 2018 preliminary design.

- Four (4) in-person stakeholder meetings (location to be provided by the City). Assume up to three (3) Consultants at each meeting. Stakeholder(s) will be determined prior to collaboration, but may include:
    i. Tribes
    ii. Parks Dept.
    iii. Brewery Park Foundation
    iv. Craft District Developers
    v. Public forum whether held at City office, existing park, etc.

11.3. Final Design Stakeholder/Public Engagement: The Consultant shall attend and facilitate the following public outreach meetings below. The goal of these design meetings is to educate and vet ideas with stakeholders, determine appropriate project design elements for the trail corridor, and advance the project from 30% through Final Design.

- Two (2) in-person stakeholder meetings (location to be provided by the City). Assume up to three (3) Consultant members at each meeting. Stakeholder(s) will be determined prior to collaboration, but may include:
    i. Tribes
    ii. Parks Dept.
    iii. Brewery Park Foundation
    iv. Craft District Developers
    v. Public forum whether held at City office, existing park, etc.

- One (1) in-person public open house (location to be provided by the City). Assume

up to three (3) Consultant members in attendance.

Task 11 Assumptions:

- *City shall facilitate space for in-person meetings and events. Location to be determined by the City.*
- *City shall provide coordination with stakeholders.*
- *City to manage and upload any presentation information onto City website, or other social media presentation platforms owned and operated by City and shall facilitate hosting and distribution of online surveys.*
- *Presentation to City Council will be after review and meetings with City staff and submittal milestones, to present design recommendations.*
- *The City shall lead efforts for mailing distribution. The consultant shall provide the materials in a format compatible with City programs.*

Task 11 Deliverables:

- *Public Outreach Plan*
- *Meeting Agenda and minutes*
- *Up to a combined three (3) visual rendered graphics and presentation materials for stakeholder and public outreach efforts.*
    - *Content for fact sheet and FAQ for City's social media & City website updates*
    - *36x48 outdoor display project boards*
    - *Photo sims*
- *Public comments and findings memo summary from each Public meeting Predesign Analysis and Final Design Public meeting, as necessary.*

12. Task 12 – 60% Design

12.1. Data Collection and Preliminary Site Investigation: The Consultant will visit the site to observe and verify existing civil, urban design, and landscape features and document changes in existing site features between 2018 and present.

12.2. Civil Predesign Analysis: The Consultant shall review the existing trail alignment, profile, cross section, design elements, civil details, and design documents prepared by others. Where changed site conditions or new design criteria will result in revisions or alterations to the original basis of design, the Consultant will document these issues in a design memorandum for discussion and resolution with the City prior to initiating 30% design work.

The Consultant team will use the 2018 Trail Alignment. This scope and fee has assumed 200 linear feet of alignment revisions if necessary to minimize geotechnical, hydrologic, and permitting impacts. The revised alignment will be developed in collaboration with the City and focus on locations where changes would be beneficial to the project in terms of reduced costs, addressing permitting constraint, improving the project delivery schedule, and/or meeting the changing design criteria of the project since the 2018 design.

12.3. The Consultant shall compile the existing 2018 CAD drawings and files prepared by others including proposed alignment, proposed planimetrics (i.e. proposed polylines, symbols, hatching), and drawing details into Civil3D.

12.4. The Consultant shall use the preliminary plans that were already been completed to prepare the 60% plans. incorporate City and stakeholder comments received during the 30% submittal review. Vertical grading associated with intersections and curb ramps will be developed. Cut and fill embankment lines, or retaining walls where needed, will be

shown. It is anticipated that the 60% plans will include the following:

- Cover Sheet (1 sheet)
- Legend and Abbreviations (1 sheet)
- Alignment Plan and Survey Control (7 sheets)
- Existing Condition Plans (7 sheets)
- Site Preparation and TESC Plans (7 sheets)
- Construction Staging and Access Plans (14 sheets)
- Trail Plans and Profiles (13 sheets)
- Trail Typical Cross Sections (3 sheets)
- Trail General Notes and Details (4 sheets)
- Trail Canopy and Fencing Plans (3 sheets)
- Trail Canopy and Fencing Details (2 sheets)
- Bridge Plans (Prepared under separate task) (5 sheets)
- Retaining Wall Plans (Prepared under separate task) (4 sheets)
- Tee Box Relocation Plans (4 sheets)
- Stormwater Conveyance and Relocation Plan and Profiles (3 sheets)
- Urban Design Plans (3 sheets)
- Urban Trail Details (2018 Preliminary Design LOE - Kiosks, Trail Nodes, Wayfinding) (3 sheets)
- Irrigation Relocation Plan (4 sheets)
- Landscape and Restoration Plans (4 sheets)
- Landscape and Restoration Plant Schedule (2 sheets)

12.5. The Consultant shall prepare a construction cost estimate based on the 60% plans.

12.6. The Consultant shall prepare special provisions for the 60% submittal based on the most current WSDOT Standard Specifications and GSPs as well as applicable APWA GSPs. The 60% specifications will cover Divisions 2-9 Bid items only.

12.7. The Consultant shall provide internal quality assurance/quality control (QA/QC) review of all deliverables prior to submittal.

Task 12 Assumptions:

- *No significant changes to the alignments or vertical profile will be required for the 60% design.*
- *The City will provide boilerplate specifications and GSPs or a sample specifications document as a basis for the project specifications.*
- *Assumes modifications to four tee boxes.*

Task 12 Deliverables:

- *60% Plans (Electronic PDF)*
- *60% Construction Cost Estimate (Electronic PDF)*
- *60% Special Provisions (Div 2-9 Bid Items)*

13. Task 13 – Final Design

13.1. The Consultant shall incorporate City and stakeholder comments received during the 60% plan review. It is anticipated that the 90% plans will include the following:

- Cover Sheet (1 sheet)
- Legend and Abbreviations (1 sheet)

- Alignment Plan and Survey Control (7 sheets)
- Existing Condition Plans (7 sheets)
- Site Preparation and TESC Plans (7 sheets)
- Construction Staging and Access Plans (14 sheets)
- Trail Plans and Profiles (13 sheets)
- Trail Typical Cross Sections (3 sheets)
- Trail General Notes and Details (4 sheets)
- Trail Canopy and Fencing Plans (3 sheets)
- Trail Canopy and Fencing Details (2 sheets)
- Bridge Plans (Prepared under separate task) (5 sheets)
- Retaining Wall Plans (Prepared under separate task) (4 sheets)
- Tee Box Relocation Plans (4 sheets)
- Stormwater Conveyance and Relocation Plan and Profiles (3 sheets)
- Stormwater Details (2 sheets)
- Urban Design Plans (3 sheets)
- Urban Trail Details (2018 Preliminary Design LOE - Kiosks, Trail Nodes, Wayfinding) (3 sheets)
- Irrigation Relocation Plan (4 sheets)
- Landscape and Restoration Plans (4 sheets)
- Landscape and Restoration Plant Schedule (2 sheets)
- Traffic Control Plans (Federal Funding Requirement) (2 sheets)

13.2. The Consultant shall prepare a construction cost estimate based on the 90% plans.

13.3. The 90% specifications will include Divisions 1-9. the Consultant shall update the 60% special provisions based on review comments from the City. The most current WSDOT Standard Specifications and GSPs will be included as well as the applicable AWPA GSPs.

13.4. The Consultant shall incorporate City and stakeholder comments received during the 90% plan review. It is anticipated that the 100% plans will include the same sheet count as the 90% plans.

13.5. The Consultant shall prepare a construction cost estimate based on the 100% Draft Bid plans.

13.6. The Consultant shall update the 90% contract specifications for the 100% (Draft Bid) submittal based on the most current WSDOT Standard Specifications and City GSPs and comments provided by the City and by WSDOT. The Consultant shall prepare the Bid item proposal sheets following City preferred layout for the Contract front end documentation.

13.7. The Consultant shall provide internal quality assurance/quality control (QA/QC) review of all deliverables prior to submittal.

13.8. The Consultant shall prepare supporting documentation needed for the WSDOT review of the final PS&E with the anticipation that this project will receive federal grant funding. This may include completing the WSDOT PS&E Checklist, Public Interest Finding (PIF) forms, Patented/Proprietary Item Certification (PIC) forms, and Maximum Extend Feasible (MEF) documentation.

13.9. The Consultant shall prepare final supporting documentation needed for the City Planning Dept Land Use Permits.

13.10. The Consultant will address comments from City and WSDOT review of the 100% submittal and prepare complete Bid Documents (Plans, Specifications, and Construction Cost Estimate) stamped and signed by a licensed Professional Engineer, for advertisement.

Task 13 Assumptions:

- *No significant changes to the alignments or vertical profile will be required for the 90% design.*
- *The City will provide a contract documents boiler plate or sample specifications (in MS Word) if contract documents are to be included in the 90% Specifications.*
- *The Consultant shall prepare and complete the 100% PS&E submittal for City approval at direction of City after the environmental permitting documents have been approved.*
- *The City will provide the front end contract documentation for incorporation into the contract specifications and bid package.*

Task 13 Deliverables:

- *90% Plans (Electronic PDF)*
- *90% Construction Cost Estimate (Electronic PDF)*
- *90% Special Provisions (Div 1-9)*
- *100% Plans (Electronic PDF)*
- *100% Construction Cost Estimate (Electronic PDF)*
- *100% Specifications (Electronic PDF)*
- *WSDOT PS&E Checklist, and as required: PIFs, PICs, and MEFs*
- *Bid Document Plans (Electronic PDF)*
- *Bid Document Construction Cost Estimate (Electronic PDF)*
- *Bid Document Specifications (Electronic PDF)*

14. Task 14 – Bid Assistance

14.1. The Consultant shall provide bid assistance including:

- Prepare addenda as requested by the City. It is assumed that two (2) addenda will be prepared.
- Respond to bidder questions relayed through the City.
- Attend the bid opening, verify bids for accuracy, and prepare bid tabulation.

14.2. The Consultant will provide the City with an electronic copy of conformed set of Bid Plan sheets and specifications. Consultant will incorporate any addendums that result to sheet or specification revisions. This supports the project to start construction with clean sheet and specification documents without any revision clouds may result from addendums and/or bidder questions that result in changes to the bid set.

Task 14 Assumptions:

- *The City shall prepare coordinate AD date and submit documents to BXWA and Newspapers, conduct bid opening, complete reference checks, compile bid tabulations, and work with WSDOT, grant lead agency, for construction obligation and award to Contractor.*

Task 14 Deliverables:

- *Responses for 2 rounds of Contractor questions during bidding and associated addendums as required (assumed 2 addenda)*
- *Conformed Bid Document Plans and Specifications (Electronic PDF)*

F. Management Reserve

Included in this Contract's Management Reserve includes, but is not limited to:

- Modified or additional design elements incorporated into the project after the predesign analysis and initial stakeholder outreach efforts.
- Right-of-way and temporary construction easement services.
- Sewer, water, joint utility trench design services.
- Illumination and/or traffic signal modification design services.
- Supplemental survey and base mapping not included in Task 2.
- Grant funding assistance.
- Construction services, such as design support during construction, construction management, inspection, construction surveying and staking, record drawings, or as-built preparation

At the time these services are required, the Consultant will provide a detailed scope of work and an estimate of cost. The above activities will require written authorization from City to access management reserve funds. The Consultant shall not proceed with additional work until the City has authorized the work and issued a notice to proceed.

Additional Services

The City of Tumwater may require other services of the Consultant. These services could include additional design, right of way, utility potholing, environmental documentation, geotechnical exploration, or other work tasks not included in the scope of work. At the time these services are required, the Consultant will provide the City with a detailed scope of work and an hour and fee estimate. These services will be authorized under a future contract supplement, if necessary. The Consultant will not proceed with the work until the City has authorized the work and issued a Notice to Proceed.

David Evans and Associates, Inc.

Project Fee Estimate
Deschutes Valley Trail (Segment C)
City of Tumwater

Project Number **TBD**
Date **8/29/2025**
Prepared By **NDV/RCLA**

Estimated DEA Labor - Civil Engineering, Surveying and Environmental Services

Task/Subtask (1)			Personnel Positions and Approximate Hourly Billing Rates																				DEA Labor		Total - w/ Expenses and Subs.
			Project Manager	QAQC	Senior Project Engineer	Project Engineer	Designer	CAD/GIS Technician	Survey Manager	Project Surveyor IV	Project Surveyor II	Office Survey Technician VI	Office Survey Technician V	Two Person Survey Crew	Survey Project Coordinator	Environmental Manager	Environmental Scientist IV	Environmental Scientist III	Landscape Architect	Landscape Designer	GIS Analyst IV	Project Accountant IV	Project Accountant II	Project Coordinator II	Total Hours	Total Estimated Fee	
		Fully Burdened Rate	$235.03	$275.97	$235.03	$180.44	$130.40	$165.28	$226.47	$208.58	$201.49	$167.34	$146.11	$258.80	$134.28	$221.38	$159.21	$133.43	$218.35	$139.50	$166.79	$157.70	$105.78	$121.30			
2		**Topographic Survey and Right of Way Mapping Mapping**																							**225**	**$48,503**	**$48,625**
	2.1	Task Management	60																			8	8		76	$16,209	
	2.2	Wetlands, critical areas, tee box location shift							10	6		12	16	54										4	102	$22,323	
	2.3	Additional Survey if needed								3		10	10	24											47	$9,971	
8		**Environmental Compliance and Permitting**																							**883**	**$145,889**	**$147,579**
	8.1	Data Collection and Preliminary Site Investigation														8	26	38			8				80	$12,315	
	8.2	Mazama Pocket Gopher (MPG) Screening Survey														30		30							60	$10,644	
	8.3	Environmental Meetings and Coordination														20		20							40	$7,096	
	8.4	Biological Assessment Preparation														40		60			8			8	116	$19,166	
	8.5	Critical Areas, Habitat Management Report and Mitigation Plan														4	80	24			8			8	124	$19,130	
	8.6	Mitigation Feasibility Assessment														8	60	32	4	12	4			2	122	$19,051	
	8.7	Mitigation Design														12	4		125	200					341	$58,487	
Total			**60**	**0**	**0**	**0**	**0**	**0**	**10**	**9**	**0**	**22**	**26**	**78**	**0**	**122**	**170**	**204**	**129**	**212**	**28**	**8**	**8**	**22**	**1108**	**$194,393**	**$196,204**

Estimated Direct Expenses	
Mileage & Other Expenses	$1,811
Subconsultants	$0
Total Expenses	**$1,811**

Project Fee Estimate Summary and Total	
Total Estimated Labor	$194,393
Total Estimated Expenses	$1,811
Total Fee Estimate	**$196,204**

Notes and Assumptions:

(1) See detailed Scope of Work dated 08/29/2025.

(2) All hours and expenses are estimated, and may be increased or decreased within the total budget limit at the discretion of DEA's project manager. The DEA project manager may transfer budget from estimated expenses to labor and vice versa, as the project manager may determine as appropriate. Work will be billed on a time and expense basis, subject to the limit of the not-to-exceed Total Fee Estimate value.

(3) Client shall be responsible for direct payment of all permit, agency review, advertisement, service or other project expenses not expressly included in the Project Fee Estimate and/or Scope of Work.

CONSULTANT FEE COMPUTATION WORKSHEET

Project Name:	*Deschutes Valley Trail (Segment C)*
Project Number:	
Consultant:	*David Evans and Associates, Inc.*
Estimated Design Fee:	*$196,204*
Prepared By:	*NDV/RCLA*

Fee Computation

Factor	***Rate***		***Weight***	***Value***	
Degree of Risk	*0.26*	*X*	*25*	*6.50*	
Relative Difficulty of Work	*0.30*	*X*	*20*	*6.00*	
Size of Job	*0.26*	*X*	*15*	*3.90*	
Period of Performance	*0.32*	*X*	*15*	*4.80*	
Assistance by the Agency	*0.32*	*X*	*15*	*4.80*	
Negotiated Fee (% of DSC)			***100***	***26.00***	***%***

Note: See Instructions for factor descriptions and rate guidelines

Multiplier Computation

Component	***Multiplier***
Labor (DSC)	*1.00*
Overhead (OH)	*1.7726*
Fee	*0.26*
Total Multiplier (DSC+OH+Fee)	***3.032600***

Exhibit D

Prime Consultant Cost Computations

Project Name: Deschutes Valley Trail (Segment C)
Project Number: TBD
Consultant: David Evans and Associates, Inc.

NEGOTIATED HOURLY RATES

Name	Classification	Hours	DSC	Overhead 177.26%	Profit 26%	Total Hourly Rate	Total
Nhan Vo	Project Manager	60	$77.50	$137.38	$20.15	$235.03	$14,102
Tucker Collins	Project Engineer		$59.50	$105.47	$15.47	$180.44	
William (Billy) Gibbs	Designer		$43.00	$76.22	$11.18	$130.40	
Josh Korakis	CAD/GIS Technician		$54.50	$96.61	$14.17	$165.28	
Ken McAfee	Survey Manager	10	$74.68	$132.38	$19.42	$226.47	$2,265
Rynea Edwards	Project Surveyor IV	9	$68.78	$121.92	$17.88	$208.58	$1,877
Adam Lawson	Project Surveyor II		$66.44	$117.77	$17.27	$201.49	
Bobby Johnson	Office Survey Technician VI	22	$55.18	$97.81	$14.35	$167.34	$3,681
Jay Dunn	Office Survey Technician V	26	$48.18	$85.40	$12.53	$146.11	$3,799
Survey Crew - DVT	Two Person Survey Crew	78	$85.34	$151.27	$22.19	$258.80	$20,187
Diana Gramling	Survey Project Coordinator		$44.28	$78.49	$11.51	$134.28	
Gray Rand	Environmental Manager	122	$73.00	$129.40	$18.98	$221.38	$27,008
Rick Pratt	Environmental Scientist IV	170	$52.50	$93.06	$13.65	$159.21	$27,066
MaKenna Lindberg	Environmental Scientist III	204	$44.00	$77.99	$11.44	$133.43	$27,221
Jonathan Gage	Landscape Architect	129	$72.00	$127.63	$18.72	$218.35	$28,167
Rachel Wells	Landscape Designer	212	$46.00	$81.54	$11.96	$139.50	$29,574
Sara Gilbert	GIS Analyst IV	28	$55.00	$97.49	$14.30	$166.79	$4,670
Vickie Elwell	Project Accountant IV	8	$52.00	$92.18	$13.52	$157.70	$1,262
Tiffany Lynch	Project Accountant II	8	$34.88	$61.83	$9.07	$105.78	$846
Olivia Werdal	Project Coordinator II	22	$40.00	$70.90	$10.40	$121.30	$2,669
Subtotal:		**1,108**					**$194,393**

REIMBURSABLES

Mileage	$821
Title Report	
Lodging and Meals	$900
Markup on Expenses - 10%	$90
Subtotal:	**$1,811**

SUBCONSULTANT COSTS

APS - Utility Pothole	
Markup on Subconsultants - 10%	
Subtotal:	

TOTAL **$196,204**

File: 2200 Consultant Agreement
Form Updated: 02/01/2014

Northwest Hydraulic Consultants Inc.
12787 Gateway Drive S.
Seattle, WA 98168
Tel. (206) 241-6000
Fax (206) 439-2420

Estimate of Professional Services

Prepared for:	SCJ Alliance
Project:	Deschutes Valley Trail (Seg. C)
Date:	07/16/2025
Project #:	P02010047
Prepared By:	P. Brooks

Labor Detail

	TASK DESCRIPTION	Staff Hours: Principal	Sr. Eng. 1	Eng./Sci. 1	Jr. Engineer/ Scientist	GIS Analyst 1	Sr. Tech. Ed./Sr. Admin.	Totals
5	**Hydraulics and Hydrology Services**							
5.1	Project Management	4	9				2	$1,213
5.2	Hydrologic Analysis		1		2			$169
5.3	Hydraulic Analysis	3	9		36	4		$2,845
5.4	Hydraulic Tech Memo (@ 90%)	3	12		24		3	$2,479
5.5	Permit Support	2	6		16	16		$2,272
	Total Hours	12	37	0	78	20	5	
	Direct Rate ($/hr)	99.75	78.75	58.80	44.89	55.13	52.50	
							SUBTOTAL(LABOR)	$8,977
							OVERHEAD AT 198.39%	$17,810
							FEE AT 26.0%	$2,334
							TOTAL (COST PLUE FIXED FEE)	$29,121

Direct Expense Detail

	Units	Rate	Cost
Mileage	0	$0.700	$0
TOTAL DIRECT EXPENSES			$0

Cost Summary

Total Labor		$29,121
Total Direct Expenses		$0
	TOTAL COST	$29,121

Table 1
Budget Breakdown
Geotechnical Services
Segment C and Descutes Valley Park Spur
Tumwater, Washington

Scope Items	Principal Engineer	Senior Engineer	Technician	Assistant Project Manager	Totals	Total Labor Costs
LABOR						
Geotechnical Engineering						
Project Management and Administration	8	20		8	36	$5,961
Fieldwork Preparation, Fieldwork, and Groundwater Monitoring	8	20	76		104	$10,903
Geotechnical Analysis	20	80			100	$17,268
Draft and Final Report, Plan Review, Data Report	10	20	6	6	42	$6,575
Total Hours	**46**	**140**	**82**	**14**	**282**	**$40,706**
Rate by Position	$201.06	$165.58	$78.72	$130.08		
Total - Labor Cost	$9,249	$23,181	$6,455	$1,821	**$40,706**	
SUBCONTRACTED SERVICES AND EXPENSES						
Drilling Subcontractor					$21,047	
Private Utility Locator					$457	
Excavating Subcontractor					$2,538	
Fencing Demo and Reconstruction					$2,400	
Pressure Transducer Rental					$3,600	
Geophysics Subconsultant					$3,150	
Geotechnical Laboratory Testing					$3,600	
Total - Direct Costs					**$36,791**	
					TOTAL	
Base Total (without Contingencies)					**$77,497**	

Note: Subcontractor/Subconsultant costs include a 1.5 percent markup.

Washington State Department of Transportation

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

March 14, 2024

Mallory Skinner
Sage Geotechnical, LLC
724 Columbia Street, Suite 203
Olympia, WA 98501

Re: Sage Geotechnical, LLC
Safe Harbor Indirect Cost Rate Addendum

Dear Mallory:

Washington State has received approval from our local Federal Highway Administration (FHWA) Division to increase the Safe Harbor Indirect Cost Rates from 110% and 80% for home and field to 120% and 90% respectively.

You'll be able to update your rates on any WSDOT agreements based on the agreement terms. Please refer to your agreement for specific information on rate updates. For questions on updating your billing rate, please contact the Contract Services Office at consultantrates@wsdot.wa.gov.

You may use the Safe Harbor Rate of 120%, or 90% for field office situations, for agreements entered prior to September 8, 2026. For agreements entered after this date, please contact the WSDOT Consultant Services Office (CSO) or our office for guidance.

The Safe Harbor Rate will not be subject to audit. Please coordinate with CSO or your Local Programs contact if you have questions about when to apply the Safe Harbor rate to your agreement.

If you have any questions, please contact Steve McKerney or me at (360)705-7799.

Sincerely,

Jarron Elter
Agreement Compliance Audit Manager

cc: Steve McKerney, Director of Internal Audit
Maryna Ya
File

Actuals Not To Exceed Table (ANTE)

Sage Geotechnical, LLC 2840 Crites Street SW, Suite 104 Tumwater, Washington 98512				
Job Classifications	Direct Labor Hourly Billing Rate NTE	Overhead NTE 120.00%	Fixed Fee NTE 26.00%	All Inclusive Hourly Billing Rate NTE
Principal Engineer	$81.73	$98.08	$21.25	$201.06
Senior Engineer	$67.31	$80.77	$17.50	$165.58
Assistant Project Manager	$52.88	$63.46	$13.75	$130.08
Staff Engineer	$40.00	$48.00	$10.40	$98.40
Technician	$32.00	$38.40	$8.32	$78.72
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00
		$0.00	$0.00	$0.00

SARGENT

Deschutes Valley Trail - Segment C

Structural Engineering

	Principal	Senior Project Engineer	Project Engineer	Design Engineer	Task Cost
Direct Salary:	$78.00	$65.00	$50.00	$40.00	
Indirect Cost Rate (197.81%):	$154.29	$128.58	$98.91	$79.12	
Profit (26.00%):	$20.28	$16.90	$13.00	$10.40	
Total Rate:	$252.57	$210.48	$161.91	$129.52	
Task 4 - Structural Engineering					
4.1 Project Admin and Management	24		16		$8,652
4.2 Public Outreach	4		4		$1,658
4.3 Review Existing Data	16		16		$6,632
4.4 Conceptual Design Retaining Walls	0		0		$0
4.5 Conceptual Design Bridge	0		0		$0
4.6 Final Design Retaining Walls					
60% Submittal	10		16		$5,116
90% Submittal	12		24		$6,917
Final Submittal	8		16		$4,611
4.7 Final Design Bridge					
60% Submittal	60		60		$24,869
90% Submittal	20		40		$11,528
Final Submittal	12		24		$6,917
4.8 Final Design Trail Features					
60% Submittal	32		40		$14,558
90% Submittal	18		36		$10,375
Final Submittal	18		36		$10,375
4.9 Bid Assistance	12		8		$4,326
Subtotal	222	0	320	0	**$107,881**

Direct Costs		
Mileage	$0.00	
Subconsultants	$0.00	
Total Direct Costs		**$0**
Total Structural Services		**$107,881**

SWCA®
ENVIRONMENTAL CONSULTANTS

1800 NW Upshur Street, Suite 100
Portland, Oregon 97209
Tel 503.224.0333 Fax 503.224.1851
www.swca.com

August 6, 2025

Patrick Holm
SCJ Alliance
1201 Third Ave, Suite 550
Seattle, WA 98101

Submitted via email: Patrick Holm patrick.holm@scjalliance.com

Re: Cultural Resources Services for the Tumwater Deschutes Valley Trail Project Segment C and Deschutes Valley Park Spur, Thurston County, Washington

Dear Patrick Holm:

SWCA Environmental Consultants (SWCA) is pleased to submit this proposal to Patrick Holm for cultural resources services for the Tumwater Deschutes Vally Trail Project Segment C and Deschutes Valley Park Spur. SWCA understands that the City of Tumwater (COT) proposes to complete the design and permitting for construction of a non-motorized trail with a paved surface and gravel shoulders providing access to an undeveloped City right of way. This work shall also include The Deschutes Valley Trail Reclaimed Water Extension system as part of the Lacey, Olympia, Tumwater, Tumwater (LOTT) partnership. Because the project is receiving FHWA funds the project is subject to FHWA review under Section 106 of the National Historic Preservation Act. Our proposal includes a scope of work that will provide cultural resources support for the design of Segment C and Deschutes Valley Park Spur and assist FHWA in meeting their NHPA Section 106 compliance requirements, including consultation support with the Washington State Historic Preservation Office and Tribes.

Thank you for providing us with the opportunity to work with you. If you have any questions or wish to discuss the proposal, please do not hesitate to reach out to me by telephone at (503) 224-4173 or by email at amanda.carroll@swca.com.

Sincerely,

Amanda J. Carroll

Amanda Carroll

Principal Cultural Resources Team Lead
503.224.4173 / amanda.carroll@swca.com

SCOPE OF WORK

The Tumwater Deschutes Valley Trail (DVT) Project Segment C ("Project") proposes to complete the design and permitting for construction of a non-motorized trail with a paved surface and gravel shoulders providing access to an undeveloped City right of way. The overall project starts at the recently completed DVT Segment A1 at the Brewery Park and extends over 2 miles southeast terminating at Pioneer Park. The length along Segment C trail alignment is approximately 5,150 LF with a 10 ft wide asphalt surface and 1 to 2 foot gravel shoulders on either side of the asphalt.

This work shall also include The Deschutes Valley Trail Reclaimed Water Extension system as part of the Lacey, Olympia, Tumwater, Tumwater (LOTT) partnership. This extension system will be an 18" diameter reclaimed water main and will extend the portion that runs through Segment C starting at the Booster Station within the Valley Golf Course and runs to the Deschutes Valley Park Trail Spur. This main line is approximately 4,000 LF overall in length and shall parallel the trail alignment. The line designed in Segment C is approximately 950 LF. The mainline trail will be 10' wide hot mix asphalt (HMA) with 1 to 2' gravel shoulders where practicable, generally following the trail alignment developed as part of the preliminary design project completed in 2018.

TASK 1: PROJECT MANAGEMENT, SECTION 106 REGULATORY ASSISTANCE AND CLIENT COORDINATION

The use of FHWA funds subjects the project to compliance with Section 106 of the National Historic Preservation Act. Under Section 106, FHWA must consider the effects of the project on historic properties. FHWA delegates certain Section 106 responsibilities to WSDOT. SWCA will prepare Section 106 correspondence for the City to submit to WSDOT Local Programs to request WSDOT/FHWA initiate Section 106 consultation. The correspondence will provide a project description, map of the proposed Area of Potential Effects (APE) for the project, and proposed methods for evaluating potential effects.

TASK 2: BACKGROUND RESEARCH

SWCA will conduct background research of the Segment C and Deschutes Valley Park Spur trail segments, with a main goal to identify the probability for buried archaeological sites to be present within the project area. Research will include a records check at the Department of Archaeology and Historic Preservation's (DAHP) WISAARD database to identify any archaeological sites or historic structures within the project area. Other sources may include available nearby geotechnical data, the University of Washington Libraries, and SWCA's internal library. SWCA previously conducted background research for other segments of the trail, which will form the basis for this work.

TASK 3: ARCHAEOLOGICAL SURVEY

SWCA will conduct archaeological survey along Segment C and spur. Prior to survey, SWCA will request the completion of a One-Call utility locate in accordance with Washington State law. Archaeological survey shall consist of pedestrian reconnaissance ("surface survey") and excavation of up to 8 shovel probes at locations deemed to be "high probability" for buried archaeological resources by the consultant, based on its observations during the pedestrian reconnaissance. During pedestrian reconnaissance, SWCA will assess the presence/absence of culturally modified trees (CMTs). Probes will be excavated using a round nosed shovel with spoils screened on to a tarp. Probes will measure 30-40 cm in diameter and extend to 1) 1.0 meter; 2) intact glacial deposits, or 3) until impassable conditions are encountered (whichever comes first). Artifacts (if encountered) will be documented in the field; surface artifacts will be left in place, excavated artifacts will be reburied in the shovel probe from which they originated. Probes will be backfilled upon completion.

TASK 4. ARCHITECTURAL HISTORY ASSESSMENT

The Tumwater Valley Golf Course is older than 50 years and, therefore, meets the minimum age threshold for listing on the National Register of Historic Places and needs to be studied as part of this undertaking for compliance with Section 106 of the NHPA.

SUBTASK 4A. ARCHITECTURAL HISTORY BACKGROUND RESEARCH

SWCA Architectural Historians will conduct a mixture of in-person and digital research on the history of the region and the individual properties located in the APE, focusing specifically on the Tumwater Valley Golf Course. The background research will include a search of online newspaper articles, archival documents, historical maps, photographs, building permits, and other relevant information available from local libraries and historical societies, as well as online repositories and databases.

SUBTASK 4B. ARCHITECTURAL SURVEY & DOCUMENTATION

SWCA will conduct an architectural history/built environment survey of the APE, focused on the historic- age properties present. SWCA staff will conduct a Historic Property Inventory (HPI) of the golf course, document it on a SHPO HPI form, and provide a recommendation regarding its eligibility for listing in the National Register of Historic Places (NRHP), as well as an analysis of potential effects of the project to the golf course, including any impacts to its historic integrity. The documentation will be conducted and reviewed by architectural historians who meet the Secretary of the Interior's Professional Qualifications Standards for Architectural History and History. All documentation will be prepared in accordance with guidance published by DAHP and the National Park Service.

TASK 5. REPORT

SWCA will prepare a Cultural Resources Report that will meet the reporting standards requirements of DAHP and the Secretary of the Interior and assist in meeting the requirements of the Section 106 review. The report will supplement and extend background research previously prepared by SWCA/NWAA. In preparing the report, the consultant will review and incorporate, as needed, project designs, maps, descriptions, and existing and new geotechnical borings. The report will provide results of the archaeological survey and historic property inventory, recommendations regarding the NRHP eligibility of cultural resources, and recommendations for any follow-on work. If approved by the city and the USACE, SWCA will submit the final Cultural Resources Report to WISSARD for DAHP review.

TASK 6. INADVERTENT DISCOVERY PLAN

SWCA will prepare an Archaeological Resources Inadvertent Discovery Plan (IDP) for use during project construction. The IDP will contain any special provisions required by WSDOT/FHWA.

DELIVERABLES

- Draft and final Section 106 regulatory letter and map.
- Draft and final archaeological site form.
- Draft and final Historic Property Inventory form.
- Draft and final Cultural Resources Assessment Technical Report.
- Draft and final Archaeological Resources Inadvertent Discovery Plan.

COST ESTIMATE

SWCA proposes to complete the scope of work detailed above on a time-and-material, not-to-exceed total of $42,403.

TASK	NTE AMOUNT
TASK 1: PROJECT MANAGEMENT, SECTION 106 REGULATORY ASSISTANCE AND CLIENT COORDINATION	***$3,529***
TASK 2: BACKGROUND RESEARCH	***$3,053***
TASK 3: ARCHAEOLOGICAL SURVEY	***$7,819***
TASK 4: ARCHITECTURAL HISTORY ASSESSMENT	***$16,510***
TASK 5: REPORT	***$9,551***
TASK 6: INADVERTENT DISCOVERY PLAN	***$1,941***
Total	**$42,403**

ASSUMPTIONS

Our cost estimate is based on the following assumptions:

- Up to 8 shovel probes will be excavated. No subsurface site boundary delineation will be necessary.
- WSDOT/FHWA will consult with SHPO, Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation.
- City will obtain/furnish rights-of-access.
- City will notify Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation of the survey and invite representatives to observe the work.
- Up to one cultural resources technical report will be developed under this scope of work including both archaeological investigation results and architectural history assessment results.
- Up to one Inadvertent Discovery Plan will be developed under this scope of work.
- Up to 1 archaeological site will be encountered and recorded. CMTs may be recorded as an archaeological site.
- Up to 1 HPI form will be prepared for the golf course.
- The HPI will be prepared at the Reconnaissance Level, as outlined by DAHP.
- The consultant will review existing and new geotechnical data for the project but will not conduct archaeological monitoring during new geotechnical investigations.

- City will be allowed one round of review on all draft deliverables.
- Document revisions will require up to 4 hours of SWCA labor to address.
- No mitigation tasks are included in this scope.
- SWCA's ability to conduct fieldwork will be unimpeded by access restrictions (e.g., fences, locked gates, etc.), road construction, wildfires and air quality, landowner restrictions, COVID-related restrictions, or any other factor(s) outside of SWCA's control.
- No artifacts will be collected or curated. If necessary SWCA will collect and prepare artifacts for curation under a new scope of work and for an additional fee.

Rate Schedule: 0.26

Columns A-E are for internal reference and are outside of the print area for proposals.

Project Budget Summary

Project Name:	Deschutes Segment C
Project No.:	[Enter Project Number Here]
Annual Rate Escalation:	0%
Project Start (est.):	
Project End (est.):	

SWCA

LABOR

Office	Name	Project Role	Discipline Short	Level Short	Discipline	Level	Rate	Totals – Total All Phases: Hours	Charge	% of Total Project	% of Labor Hrs	% of Lbr Charge	Phase 01: Hours	Charge
							$ -	-	$ -	0.0%	0.0%	0.0%	-	$ -
							$ -	-	$ -	0.0%	0.0%	0.0%	-	$ -
GEN	General Biller				Accounting - Billing		$ 104.00	-	$ -	0.0%	0.0%	0.0%	-	$ -
GEN	General Technical Editor				Technical Writer/Editor		$ 169.00	-	$ -	0.0%	0.0%	0.0%	-	$ -
POR	Carroll, Amanda		CR	S11	Cultural Resources	Specialist XI	$ 222.47	4.00	$ 889.88	2.1%	1.5%	2.2%	4.00	$ 889.88
POR	Markus, David		CR	S10	Cultural Resources	Specialist X	$ 203.54	4.00	$ 814.16	1.9%	1.5%	2.0%	4.00	$ 814.16
	Mulholland, Meghan		CR	S09	Cultural Resources	Specialist IX	$ 183.68	44.00	$ 8,081.92	19.1%	16.8%	19.9%	44.00	$ 8,081.92
POR	McIlhennymiller, Katie		CR	S05	Cultural Resources	Specialist V	$ 121.31	48.00	$ 5,822.88	13.7%	18.3%	14.3%	48.00	$ 5,822.88
POR	Butler, Caelie		CR	S06	Cultural Resources	Specialist VI	$ 133.47	28.00	$ 3,737.10	8.8%	10.7%	9.2%	28.00	$ 3,737.10
POR	Held, Rhiannon		TW	S07	Technical Writer/Editor	Specialist VII	$ 144.88	8.00	$ 1,159.07	2.7%	3.0%	2.9%	8.00	$ 1,159.07
POR	Chatfield, Catherine		GS	S08	GIS/CADD	Specialist VIII	$ 161.96	15.00	$ 2,429.40	5.7%	5.7%	6.0%	15.00	$ 2,429.40
POR	Self, Katie		AD	S03	Administration	Specialist III	$ 95.60	1.00	$ 95.60	0.2%	0.4%	0.2%	1.00	$ 95.60
POR	Vallejo, Ricardo		CR	S04	Cultural Resources	Specialist IV	$ 107.02	24.00	$ 2,568.48	6.1%	9.1%	6.3%	24.00	$ 2,568.48
	Cook, Deirdre		PC	S06	Project Controls	Specialist VI	$ 133.47	0.50	$ 66.73	0.2%	0.2%	0.2%	0.50	$ 66.73
SAC	Mark, Trevor		CR	S06	Cultural Resources	Specialist VI	$ 133.47	24.00	$ 3,203.23	7.6%	9.1%	7.9%	24.00	$ 3,203.23
SLC	Olson, Christina		CR	S09	Cultural Resources	Specialist IX	$ 183.68	-	$ -	0.0%	0.0%	0.0%	-	$ -
SAC	Herrick, Dan		CR	S12	Cultural Resources	Specialist XII	$ 241.40	6.00	$ 1,448.40	3.4%	2.3%	3.6%	6.00	$ 1,448.40
SAC	Demarais, LC		CR	S09	Cultural Resources	Specialist IX	$ 183.68	56.00	$ 10,286.08	24.3%	21.3%	25.3%	56.00	$ 10,286.08
					Labor Subtotal			262.50	$ 40,602.93	*95.8%*	100.0%		262.50	$ 40,602.93
					Communication Fee - % of Labor		*0%*		*$ -*	*0.0%*				*$ -*
					Labor Total			262.50	$ 40,602.93	95.8%			262.50	$ 40,602.93

TRAVEL EXPENSES

Description	Unit	Rate	Totals: # Units	Charge	% of Total Project	Phase 01: # Units	Charge
Car / Full Size Truck Rental Daily	*Per Day*	70.00	5.00	$ 350.00	0.8%	5.00	$ 350.00
Car / Full Size Truck Rental Weekly	*Per Week*	420.00	-	$ -	0.0%	-	$ -
Car / Full Size Truck Rental Monthly	*Monthly*	1,680.00	-	$ -	0.0%	-	$ -
4x4 Truck Daily	*Half Ton, Per Day*	75.00	-	$ -	0.0%	-	$ -
4x4 Truck Weekly	*Half Ton, Per Week*	450.00	-	$ -	0.0%	-	$ -
4x4 Truck Monthly	*Half Ton, Per Month*	1,800.00	-	$ -	0.0%	-	$ -
4x4 Truck Daily	*3/4 Ton, Per Day*	85.00	-	$ -	0.0%	-	$ -
4x4 Truck Weekly	*3/4 Ton, Per Week*	510.00	-	$ -	0.0%	-	$ -
4x4 Truck Monthly	*3/4 Ton, Per Month*	2,040.00	-	$ -	0.0%	-	$ -
4x4 Truck Daily	*Full Ton, Per Day*	95.00	-	$ -	0.0%	-	$ -
4x4 Truck Weekly	*Full Ton, Per Week*	570.00	-	$ -	0.0%	-	$ -
4x4 Truck Monthly	*Full Ton, Per Month*	2,280.00	-	$ -	0.0%	-	$ -
Lodging/Housing	*Per Day*	175.00	3.00	$ 525.00	1.2%	3.00	$ 525.00
Mileage	*Per Mile*	$ 0.700	-	$ -	0.0%	-	$ -
Airfare	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Rental Car Gasoline	*Rate / Unit or Lump Sum*	$ 3.20	80.00	$ 256.00	0.6%	80.00	$ 256.00
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Travel Expenses Subtotal				$ 1,131.00	2.7%		$ 1,131.00
Travel Expenses Markup		*15%*		*$ 169.65*	*0.4%*		$ 169.65
Per Diem	*per day*	$ 68.00	6.00	$ 408.00	1.0%	6.00	$ 408.00
Travel Expenses Total				$ 1,708.65	4.0%		$ 1,708.65

OTHER EXPENSES

Description	Unit	Rate	Totals: # Units	Charge	% of Total Project	Phase 01: # Units	Charge
Supplies	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Copies - B&W (in-house)	*Per Copy*	$ 0.10	-	$ -	0.0%	-	$ -
Copies - Color (in-house)	*Per Copy*	$ 1.00	-	$ -	0.0%	-	$ -
Graphic Plots	*Per Plot*	$ -	-	$ -	0.0%	-	$ -
Permits	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Postage	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Anemometer	*Per Day*	$ 3.00	-	$ -	0.0%	-	$ -
Curation	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Tablet + Geode	*Per Day*	$ 40.00	2.00	$ 80.00	0.2%	2.00	$ 80.00
Records Search	*Rate / Unit or Lump Sum*	$ 25.00	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Other Expenses Subtotal				$ 80.00	0.2%		$ 80.00
Other Expenses Markup		*15%*		*$ 12.00*	*0.0%*		$ 12.00
Other Expenses Total				$ 92.00	0.2%		$ 92.00
TOTAL EXPENSES				$ 1,800.65	4.2%		$ 1,800.65
Project Phase Total				**$ 42,403.58**			**$ 42,403.58**

Note: Communication expense is not subject to 15% administrative fee.

TOTAL PROJECT	Charges
SWCA Labor Total	**$ 40,602.93**
Expenses Total	**$ 1,800.65**
Subcontractors Total	**$ -**
Total Project	**$ 42,403.58**
Tax Total	**$ -**
Total Including Taxes	**$ 42,403.58**

Subconsultant Fee Determination Summary - Exhibit E-1

SCJ Alliance

Client: City of Tumwater
Project: Deschutes Valley Trail Segments: A2,B,D,Palermo
Job #: 25-000313
File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

Template Version: 7/2/2025
Contract Type: LAG Contract

Consultant Fee Determination

DIRECT SALARY COST

Classification	Hours	Direct Hourly Rate	Amount
Principal	24.0	$104.86	$2,516.64
Senior Project Manager	263.0	$79.29	$20,852.09
Senior Project Manager	519.0	$76.59	$39,752.55
E3 Engineer	650.0	$46.82	$30,433.00
T4 Technician	640.0	$42.94	$27,483.07
Senior Project Manager	129.0	$57.79	$7,454.91
L4 Landscape	200.0	$47.27	$9,454.00
L1 Landscape	348.0	$31.49	$10,958.52
Graphic Designer	28.0	$32.20	$901.60
P3 Planner	12.0	$46.95	$563.40
Senior Consultant	128.0	$84.54	$10,821.50
PM3 Project Manager	30.0	$73.56	$2,206.73
P4 Planner	28.0	$48.08	$1,346.16
Project Accountant	22.0	$38.92	$856.24

Total Direct Salary Cost **$165,600.41**

OVERHEAD

Overhead Rate: 191.76% Direct Salary Cost: **$165,600.41** **Overhead Cost** **$317,555.34**

FIXED FEE

Fixed Fee Rate: 31.00% Direct Salary Cost: **$165,600.41** **Fixed Fee Cost** **$51,336.13**

TOTAL SALARY COST

Total Salary Cost **$534,491.87**

SUBCONSULTANTS

DEA	Task 2		Topographic Survey and Right of Way Mapping (DE	$79,802
Sage	Task 3		Geotechnical Analysis (Sage)	$188,829
Sargent	Task 4	$0	Structural Engineering (Sargent)	$159,185
NHC	Task 5		Hydraulics and Hydrology Services (NHC)	$70,904
SWCA	Task 7		Cultural Resource Services (SWCA)	$47,539
DEA	Task 8		Environmental Fieldwork and Mitigation (DEA)	$130,912
DEA	Task 12		Utility Coordination (DEA)	$53,073
DEA	Task 16		Utility Design (DEA)	$77,850

Subconsultant Fee Subtotal: $0 **$808,094.00**
Subconsultant Markup: 0% **$0.00**

REIMBURSABLE EXPENSES

Copies, Printing, etc.	0.0%	of the Direct Salary Costs			$0.00
Mileage	200	miles at	$0.700	per mile	$140.00

Expenses Subtotal: **$140.00**
Expenses Markup: 0% **$0.00**

SUBTOTAL (SALARY, SUBCONSULTANTS AND EXPENSES)

Subtotal (Salary, Subconsultants and Expenses) **$1,342,725.87**

MANAGEMENT RESERVE FUND (MRF)

Management Reserve: $100,000 **$100,000.00**

Total Estimated Budget: **$1,442,725.87**

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
Task 1	**Management / Coordination / Administration**																
Subtask 1	**Continuous Project Management**																$ 35,418.07
1	Consultant Team Management	4.0	24.0	12.0												40.0	$ 10,462.03
2	Prepare Project Schedule		2.0	4.0			4.0									10.0	$ 2,246.76
3	Maintenance of Schedule and Budget		6.0	4.0												10.0	$ 2,524.28
4	Progress Reports		2.0	6.0												8.0	$ 1,995.10
5	Schedule and Budget Monitoring		4.0	6.0												10.0	$ 2,506.91
6	Coordination with City	4.0	24.0	24.0												52.0	$ 13,428.62
7	Record Keeping		2.0	4.0											6.0	12.0	$ 2,254.38
	Subtotal Hours:	8.0	64.0	60.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	142.0	$ 35,418.07
Subtask 2	**Continuous Administrative Services**																$ 27,079.78
1	Project Set-up and Execute Agreement	2.0	2.0	4.0											2.0	10.0	$ 2,428.80
2	Execution of Subconsultant Agreements	2.0	2.0	4.0											2.0	10.0	$ 2,428.80
3	Subconsultant Administration		12.0	24.0											6.0	42.0	$ 9,757.73
4	Review Subconsultant Deliverables		12.0	24.0												36.0	$ 9,004.02
5	Preparation of Monthly Invoices	2.0	6.0	2.0											6.0	16.0	$ 3,460.44
	Subtotal Hours:	6.0	34.0	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	114.0	$ 27,079.78
Subtask 3	**Biweekly Design Coordination Meetings**																$ 6,783.51
1	Biweekly Design Coordination Meetings		12.0	12.0			4.0									28.0	$ 6,783.51
	Subtotal Hours:	0.0	12.0	12.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	$ 6,783.51
Subtask 4	**Submitting Project Deliverables**																$ 15,338.37
1	Submittal and Documentation	8.0	12.0	24.0	24.0											68.0	$ 15,338.37
	Subtotal Hours:	8.0	12.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.0	$ 15,338.37
	Total Phase Hours:	22.0	122.0	154.0	24.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	352.0	352.0
	Total Phase Direct Labor:	$2,306.92	$9,672.83	$11,795.55	$1,123.68	$0.00	$462.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$856.24	$26,217.54	$ 84,619.74
Task 2	**Topographic Survey and Right of Way Mapping (DEA)**																
Task 3	**Geotechnical Analysis (Sage)**																
Task 4	**Structural Engineering (Sargent)**																
Task 5	**Hydraulics and Hydrology Services (NHC)**																
Task 6	**Arborist Services**																

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
Subtask 1	**Background Document Review and Conceptual Site Walk**																$ 6,475.79
1	Background Document Review and Conceptual Site Walk						2.0	40.0								42.0	$ 6,475.79
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	2.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	$ 6,475.79
Subtask 2	**Tree Health Assessment**																$ 4,034.69
1	Tree Health Assessment						2.0	24.0								26.0	$ 4,034.69
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	2.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	$ 4,034.69
Subtask 3	**Design Review**																$ 6,475.79
1	Design Review						2.0	40.0								42.0	$ 6,475.79
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	2.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0	$ 6,475.79
Subtask 4	**Public Involvement**																$ 2,883.41
1	Public Involvement							8.0		16.0						24.0	$ 2,883.41
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	24.0	$ 2,883.41
Subtask 5	**Final Design Communication**																$ 4,034.69
1	Final Design Communication						2.0	24.0								26.0	$ 4,034.69
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	2.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	$ 4,034.69
Subtask 6	**Bid Period Services**																$ 1,220.55
1	Bid Period Services							8.0								8.0	$ 1,220.55
	Subtotal Hours:	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	$ 1,220.55
	Total Phase Hours:	0.0	0.0	0.0	0.0	0.0	8.0	144.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	168.0	$ 168.0
	Total Phase Direct Labor:	$0.00	$0.00	$0.00	$0.00	$0.00	$462.32	$6,806.88	$0.00	$515.20	$0.00	$0.00	$0.00	$0.00	$0.00	$7,784.40	$ 25,124.93
Task 7	**Cultural Resource Services (SWCA)**																
Task 8	**Environmental Fieldwork and Mitigation (DEA)**																
Task 9	**Environmental Compliance and Permitting**																
Subtask 1	**Environmental Permitting Evaluation / Alternative Comparison**																$ 4,582.92
1	Environmental Permitting Evaluation / Alternative Comparison		2.0	2.0	2.0							12.0				18.0	$ 4,582.92
	Subtotal Hours:	0.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	18.0	$ 4,582.92
Subtask 2	**Communication & Coordination**																$ 20,292.55
1	Communication & Coordination		8.0	8.0	4.0							40.0	20.0			80.0	$ 20,292.55
	Subtotal Hours:	0.0	8.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	20.0	0.0	0.0	80.0	$ 20,292.55
Subtask 3	**JARPA Preparation**																$ 16,519.36
1	JARPA Preparation			8.0	24.0							40.0				72.0	$ 16,519.36

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
	Subtotal Hours:	0.0	0.0	8.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	72.0	$ 16,519.36
Subtask 4	**SEPA**																$ 6,042.96
1	SEPA			2.0								2.0	8.0	20.0		32.0	$ 6,042.96
	Subtotal Hours:	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.0	20.0	0.0	202.0	$ 6,042.96
Subtask 5	**WDFW HPA**																$ 5,464.83
1	WDFW HPA			2.0	4.0							16.0				22.0	$ 5,464.83
	Subtotal Hours:	0.0	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	22.0	$ 5,464.83
Subtask 6	**Shoreline Substantial Development Permit**																$ 7,200.65
1	Shoreline Substantial Development Permit			4.0	4.0							16.0		8.0		32.0	$ 7,200.65
	Subtotal Hours:	0.0	0.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	0.0	8.0	0.0	32.0	$ 7,200.65
	Total Phase Hours:	0.0	10.0	26.0	38.0	0.0	0.0	0.0	0.0	0.0	0.0	126.0	28.0	28.0	0.0	256.0	$ 256.0
	Total Phase Direct Labor:	$0.00	$792.86	$1,991.46	$1,779.16	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$10,652.42	$2,059.62	$1,346.16	$0.00	$18,621.66	$ 60,103.28
Task 10	**Stormwater Analysis and Design**																
Subtask 1	**Data Collection & Prelim Site Investigation**																$ 5,604.52
1	Data Collection & Prelim Site Investigation			8.0	24.0											32.0	$ 5,604.52
	Subtotal Hours:	0.0	0.0	8.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	$ 5,604.52
Subtask 2	**Predesign Analysis**																$ 10,184.26
1	Analysis of Existing Conveyance System(s) & Outfall(s)			20.0	20.0	16.0										56.0	$ 10,184.26
	Subtotal Hours:	0.0	0.0	20.0	20.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0	$ 10,184.26
Subtask 3	**Final Stormwater Analysis and Design**																$ 13,326.53
1	Design of New Conveyance System(s)			16.0	40.0	24.0										80.0	$ 13,326.53
2	Design of On-Site Stormwater Management BMPs			16.0	32.0											48.0	$ 8,791.18
3	Drainage Control Plan (DCP) Reports			16.0	40.0	16.0										72.0	$ 12,217.72
	Subtotal Hours:	0.0	0.0	48.0	112.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200.0	$ 34,335.43
Subtask 4	**Stormwater Pollution Prevention Plan (SWPPP)**																$ 2,417.86
1	Stormwater Pollution Prevention Plan (SWPPP)				16.0											16.0	$ 2,417.86
	Subtotal Hours:	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	304.0	$ 2,417.86
Subtask 5	**NPDES Permit**																$ 1,208.93
1	NPDES Permit				8.0											8.0	$ 1,208.93
	Subtotal Hours:	0.0	0.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	$ 1,208.93
	Total Phase Hours:	0.0	0.0	76.0	180.0	56.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	312.0	$ 312.0
	Total Phase Direct Labor:	$0.00	$0.00	$5,821.18	$8,427.60	$2,404.77	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$16,653.55	$ 53,751.00

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
Task 11	**Public Outreach**																
Subtask 1	**Public Outreach Materials**																$ 5,269.35
1	Public Outreach Materials		2.0	2.0	4.0		1.0		4.0	12.0	12.0					37.0	$ 5,269.35
	Subtotal Hours:	0.0	2.0	2.0	4.0	0.0	1.0	0.0	4.0	12.0	12.0	0.0	0.0	0.0	0.0	37.0	$ 5,269.35
Subtask 2	**Predesign Analysis Stakeholder Engagement**																$ 4,024.95
1	Four In-Person Stakeholder Meetings		8.0	8.0												16.0	$ 4,024.95
	Subtotal Hours:	0.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	$ 4,024.95
Subtask 3	**Final Design Stakeholder / Public Engagement**																$ 2,012.47
1	Two In-Person Stakeholder Meetings		4.0	4.0												8.0	$ 2,012.47
2	One Council Meeting Support	2.0	2.0	2.0			2.0					2.0	2.0			12.0	$ 3,076.75
	Subtotal Hours:	2.0	6.0	6.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	20.0	$ 5,089.22
	Total Phase Hours:	2.0	16.0	16.0	4.0	0.0	3.0	0.0	4.0	12.0	12.0	2.0	2.0	0.0	0.0	73.0	$ 73.0
	Total Phase Direct Labor:	$209.72	$1,268.57	$1,225.51	$187.28	$0.00	$173.37	$0.00	$125.96	$386.40	$563.40	$169.09	$147.12	$0.00	$0.00	$4,456.41	$ 14,383.51
Task 12	**Utility Coordination (DEA)**																
Task 13	**60% Design**																
Subtask 1	**60% Plans**																$ 106,602.01
1	Data Collection and Preliminary Site Investigation		8.0	8.0	10.0		8.0									34.0	$ 7,028.29
X	Civil Predesign Analysis		2.0	8.0	10.0											20.0	$ 4,000.70
X	Compile Existing Drawings and Files			2.0	8.0	32.0										42.0	$ 6,138.58
X	Palermo Design		8.0	8.0	12.0	24.0										52.0	$ 9,164.75
X	Cover Sheet (1 sheet)			4.0	8.0	16.0										28.0	$ 4,415.40
X	Legend and Abbreviations (1 sheet)			4.0	8.0	8.0										20.0	$ 3,306.60
X	Alignment Plan and Survey Control (6 sheets)			4.0	8.0	20.0										32.0	$ 4,969.81
X	Existing Condition Plans (6 sheets)			4.0	8.0	16.0										28.0	$ 4,415.40
X	Site Preparation and TESC Plans (6 sheets)			4.0	8.0	16.0										28.0	$ 4,415.40
X	Construction Staging and Access Plans (12 sheets)			4.0	8.0	24.0										36.0	$ 5,524.21
X	Trail Plans and Profiles (12 sheets)			4.0	16.0	48.0										68.0	$ 10,059.55
X	Trail Typical Cross Sections (3 sheets)			4.0	8.0	16.0										28.0	$ 4,415.40
X	Trail General Notes and Details (1 sheet)			4.0	8.0	16.0										28.0	$ 4,415.40
X	Bridge Plans (Prepared under separate task, 10 sheets)															0.0	$ -
X	Retaining Wall & Railing Plans (Prepared under separate task, 8 sheets)															0.0	$ -
X	Stormwater Conveyance and Relocation Plan and Profiles (6 sheets)			4.0	20.0	36.0										60.0	$ 9,000.81

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
X	Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task, 8 sheets)															0.0	$ -
X	Urban Design Plans (6 sheets)			2.0	12.0	20.0	2.0		4.0							40.0	$ 5,859.43
X	Urban Trail Details (8 sheets)			4.0	10.0	20.0	2.0		4.0							40.0	$ 6,051.63
X	Irrigation Relocation Plan (6 sheets)						12.0		40.0							52.0	$ 6,303.76
X	Landscape and Restoration Plans (6 sheets)						8.0		32.0							40.0	$ 4,744.57
X	Landscape and Restoration Plant Schedule (3 sheets)						4.0		16.0							20.0	$ 2,372.29
	Subtotal Hours:	0.0	18.0	72.0	162.0	312.0	36.0	0.0	96.0	0.0	0.0	0.0	0.0	0.0	0.0	696.0	$ 106,602.01
Subtask 2	**60% Cost Estimate**																$ 7,709.92
1	60% Cost Estimate		2.0	8.0	24.0		2.0	8.0								44.0	$ 7,709.92
	Subtotal Hours:	0.0	2.0	8.0	24.0	0.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0	$ 7,709.92
Subtask 3	**60% Specifications**																$ 8,420.54
1	60% Specifications		8.0	16.0	16.0											40.0	$ 8,420.54
	Subtotal Hours:	0.0	8.0	16.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	$ 8,420.54
Subtask 4	**Quality Assurance / Quality Control**																$ 11,411.04
1	Quality Assurance / Quality Control		16.0	20.0			4.0		16.0							56.0	$ 11,411.04
	Subtotal Hours:	0.0	16.0	20.0	0.0	0.0	4.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0	$ 11,411.04
	Total Phase Hours:	0.0	44.0	116.0	202.0	312.0	42.0	8.0	112.0	0.0	0.0	0.0	0.0	0.0	0.0	836.0	$ 836.0
	Total Phase Direct Labor:	$0.00	$3,488.56	$8,884.96	$9,457.64	$13,398.00	$2,427.18	$378.16	$3,526.88	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$41,561.38	$ 134,143.52
Task 14	**Final Design**																
Subtask 1	**90% Plans**																$ 50,015.80
1	Cover Sheet (1 sheet)					1.0										1.0	$ 138.60
X	Legend and Abbreviations (1 sheet)					1.0										1.0	$ 138.60
X	Alignment Plan and Survey Control (6 sheets)				1.0	2.0										3.0	$ 428.32
X	Existing Condition Plans (6 sheets)				1.0	2.0										3.0	$ 428.32
X	Site Preparation and TESC Plans (6 sheets)			1.0	2.0	4.0										7.0	$ 1,103.85
X	Construction Staging and Access Plans (12 sheets)			4.0	8.0	16.0										28.0	$ 4,415.40
X	Trail Plans and Profiles (12 sheets)			1.0	24.0	24.0										49.0	$ 7,200.42
X	Trail Typical Cross Sections (3 sheets)			1.0	4.0	4.0										9.0	$ 1,406.08
X	Trail General Notes and Details (1 sheet)			1.0	4.0	4.0										9.0	$ 1,406.08
X	Bridge Plans (Prepared under separate task, 10 sheets)															0.0	$ -
X	Retaining Wall & Railing Plans (Prepared under separate task, 8 sheets)															0.0	$ -
X	Stormwater Conveyance and Relocation Plan and Profiles (6 sheets)			2.0	8.0	12.0										22.0	$ 3,366.57
X	Stormwater Details (2 sheets)			2.0	4.0	8.0										14.0	$ 2,207.70

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
X	Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task, 5 sheets)															0.0	$ -
X	Utility Details (Prepared under separate task, 3 sheets)															0.0	$ -
X	Urban Design Plans (6 sheets)			1.0	4.0	12.0	2.0		8.0							27.0	$ 3,701.03
X	Urban Trail Details (8 sheets)			1.0	4.0	12.0	1.0		4.0							22.0	$ 3,107.96
X	Irrigation Relocation Plan & Details (10 sheets)						12.0		40.0							52.0	$ 6,303.76
X	Landscape and Restoration Plans (6 sheets)						8.0		32.0							40.0	$ 4,744.57
X	Landscape and Restoration Plant Schedule (3 sheets)						4.0		24.0							28.0	$ 3,185.38
X	Traffic Control Plans (5 sheets)			4.0	16.0	24.0										44.0	$ 6,733.14
	Subtotal Hours:	0.0	0.0	18.0	80.0	126.0	27.0	0.0	108.0	0.0	0.0	0.0	0.0	0.0	0.0	359.0	$ 50,015.80
Subtask 2	**90% Cost Estimate**																$ 4,904.29
1	90% Cost Estimate			2.0	8.0	16.0	2.0	4.0								32.0	$ 4,904.29
	Subtotal Hours:	0.0	0.0	2.0	8.0	16.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0	$ 4,904.29
Subtask 3	**90% Specifications**																$ 6,986.00
1	90% Specifications		8.0	16.0			2.0	4.0								30.0	$ 6,986.00
	Subtotal Hours:	0.0	8.0	16.0	0.0	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0	$ 6,986.00
Subtask 4	**100% Plans**																$ 33,231.90
1	Cover Sheet (1 sheet)					1.0										1.0	$ 138.60
X	Legend and Abbreviations (1 sheet)					1.0										1.0	$ 138.60
X	Alignment Plan and Survey Control (6 sheets)				1.0	1.0										2.0	$ 289.72
X	Existing Condition Plans (6 sheets)					1.0										1.0	$ 138.60
X	Site Preparation and TESC Plans (6 sheets)			1.0	2.0	4.0										7.0	$ 1,103.85
X	Construction Staging and Access Plans (12 sheets)			1.0	4.0	4.0										9.0	$ 1,406.08
X	Trail Plans and Profiles (12 sheets)			1.0	4.0	8.0										13.0	$ 1,960.49
X	Trail Typical Cross Sections (3 sheets)			1.0	4.0	4.0										9.0	$ 1,406.08
X	Trail General Notes and Details (1 sheet)				1.0	2.0										3.0	$ 428.32
X	Bridge Plans (Prepared under separate task, 10 sheets)															0.0	$ -
X	Retaining Wall & Railing Plans (Prepared under separate task, 8 sheets)															0.0	$ -
X	Stormwater Conveyance and Relocation Plan and Profiles (6 sheets)			2.0	8.0	12.0										22.0	$ 3,366.57
X	Stormwater Details (2 sheets)				4.0	12.0										16.0	$ 2,267.67
X	Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task, 5 sheets)															0.0	$ -
X	Utility Details (Prepared under separate task, 3 sheets)															0.0	$ -
X	Urban Design Plans (6 sheets)			1.0	2.0	8.0	2.0	4.0	8.0							25.0	$ 3,454.67
X	Urban Trail Details (8 sheets)			1.0	2.0	8.0	1.0	2.0	4.0							18.0	$ 2,556.46
X	Irrigation Relocation Plan & Details (10 sheets)						8.0		40.0							48.0	$ 5,557.67
X	Landscape and Restoration Plans (6 sheets)						4.0		32.0							36.0	$ 3,998.48

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
X	Landscape and Restoration Plant Schedule (3 sheets)						2.0		24.0							26.0	$ 2,812.34
X	Traffic Control Plans (5 sheets)			2.0	4.0	8.0										14.0	$ 2,207.70
	Subtotal Hours:	0.0	0.0	10.0	36.0	74.0	17.0	6.0	108.0	0.0	0.0	0.0	0.0	0.0	0.0	251.0	$ 33,231.90
Subtask 5	**100% Cost Estimate**																$ 6,402.52
1	100% Cost Estimate		4.0	8.0	16.0		2.0	4.0								34.0	$ 6,402.52
	Subtotal Hours:	0.0	4.0	8.0	16.0	0.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	$ 6,402.52
Subtask 6	**100% Specifications**																$ 7,596.27
1	100% Specifications		8.0	16.0			2.0	8.0								34.0	$ 7,596.27
	Subtotal Hours:	0.0	8.0	16.0	0.0	0.0	2.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	$ 7,596.27
Subtask 7	**Quality Assurance / Quality Control**																$ 10,062.37
1	Quality Assurance / Quality Control		20.0	20.0												40.0	$ 10,062.37
	Subtotal Hours:	0.0	20.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	$ 10,062.37
Subtask 8	**Final Documentation for Land Use Permits**																$ 11,395.24
1	Final Documentation for Land Use Permits		16.0	8.0	16.0	8.0	2.0	4.0	8.0							62.0	$ 11,395.24
	Subtotal Hours:	0.0	16.0	8.0	16.0	8.0	2.0	4.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	62.0	$ 11,395.24
Subtask 9	**Bid Documents and Comment Response**																$ 23,067.51
1	Comment Response		8.0	20.0	20.0	20.0	4.0	6.0								78.0	$ 14,447.38
2	Bid Documents		4.0	8.0	16.0	16.0	2.0	4.0								50.0	$ 8,620.13
	Subtotal Hours:	0.0	12.0	28.0	36.0	36.0	6.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	128.0	$ 23,067.51
	Total Phase Hours:	0.0	68.0	126.0	192.0	260.0	60.0	40.0	224.0	0.0	0.0	0.0	0.0	0.0	0.0	970.0	$ 970.0
	Total Phase Direct Labor:	$0.00	$5,391.41	$9,650.91	$8,989.44	$11,165.00	$3,467.40	$1,890.80	$7,053.76	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$47,608.72	$ 153,661.90
Task 15	**Utility Design (DEA)**																
Task 16	**Bid Assistance**																
Subtask 1	**Bid Assistance**																$ 5,377.59
1	Prepare Addenda as Requested (assumed 2 prepared)		1.0	2.0	4.0	8.0	4.0		8.0							27.0	$ 4,022.79
2	Respond to Bidder Questions		1.0	2.0	4.0											7.0	$ 1,354.80
	Subtotal Hours:	0.0	2.0	4.0	8.0	8.0	4.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	34.0	$ 5,377.59
Subtask 2	**Conformed Bid Plan Sheets and Specifications**																$ 3,326.39
1	Conformed Bid Plan Sheets and Specifications		1.0	1.0	2.0	4.0	4.0	8.0								20.0	$ 3,326.39
	Subtotal Hours:	0.0	1.0	1.0	2.0	4.0	4.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	$ 3,326.39
	Total Phase Hours:	0.0	3.0	5.0	10.0	12.0	8.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	54.0	$ 54.0
	Total Phase Direct Labor:	$0.00	$237.86	$382.97	$468.20	$515.31	$462.32	$378.16	$251.92	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$2,696.74	$ 8,703.99

Subconsultant Labor Hour Estimate

SCJ Alliance

Client: City of Tumwater **Template Version:** 7/2/2025

Project: Deschutes Valley Trail Segments: A2,B,D,Palermo LAG Contract

Job #: 25-000313

File Name: 25-000313_FEE_Segments A2, B, D, Palermo_20250904-Civil.xlsm

		Bill	Patrick	Whitney	Rikki	Kyle	Trent	Colin-Arborist	Lorena	Jay	Laura	Sharese	Spencer	Vaughn	Traci		
Phase & Task No.	***Phase & Task Title***	**Principal**	**Senior Project Manager**	**Senior Project Manager**	**E3 Engineer**	**T4 Technician**	**Senior Project Manager**	**L4 Landscape**	**L1 Landscape**	**Graphic Designer**	**P3 Planner**	**Senior Consultant**	**PM3 Project Manager**	**P4 Planner**	**Project Accountant**	***Total Direct Labor Hours & Cost***	***Total Cost***
	Total Hours All Phases	24.0	263.0	519.0	650.0	640.0	129.0	200.0	348.0	28.0	12.0	128.0	30.0	28.0	22.0	3,021.0	3021.0
	Total Direct Labor Estimate All Phases	$2,516.64	$20,852.09	$39,752.55	$30,433.00	$27,483.07	$7,454.91	$9,454.00	$10,958.52	$901.60	$563.40	$10,821.50	$2,206.73	$1,346.16	$856.24	$165,600.41	**$ 534,491.87**
	Indirect Costs																
	Subconsultants:																
				DEA													$79,802.00
				Sage													$188,829.00
				Sargent													$159,185.00
				NHC													$70,904.00
				SWCA													$47,539.00
				DEA													$130,912.00
				DEA													$53,073.00
				DEA													$77,850.00
	Subconsultant Subtotal:																$ 808,094.00
	Subconsultant Markup:																$ -
	Subconsultant Total:																**$ 808,094.00**
	Reimbursable Expenses:																
				Copies, Printing, etc.													$ -
				Mileage													$ 140.00
	Expenses Subtotal:																$ 140.00
	Expenses Markup:																$ -
	Expenses Total:																**$ 140.00**
	Management Reserve:																$ 100,000.00
	Total Indirect Costs:																**$ 908,234.00**
	Total:																**$ 1,442,725.87**

SCOPE OUTLINE

City of Tumwater (COT) Deschutes Valley Trail (Segments A2, B, D, Palermo Spur)

A. Project Description/Background

The Tumwater Deschutes Valley Trail (DVT) Project Segments A2, B, D, and Palermo Spur ("Project") proposes to complete the design and permitting for construction of a non-motorized trail with a paved surface and gravel shoulders providing access to undeveloped City right of way. The overall project starts at the recently completed DVT Segment A1 at the Brewery Park and extends over 2 miles southeast terminating at Pioneer Park. This Scope is written specifically for Segments A2, B, D, and Palermo Spur ("Project") which will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park. This Project includes the Palmero Spur.

The mainline trail will be 10-foot wide hot mix asphalt (HMA) with 1 to 2-foot gravel shoulders where practicable, generally following the trail alignment developed as part of the preliminary design project completed in 2018.

Mitigation needs for critical areas and steep slopes are yet to be determined and will be provided during this design phase with supporting documentation via design reports, memos, and design recommendations. Stream and/or wetland mitigation for the project's watershed will comply with City of Tumwater Municipal Code and Army Corp Permit requirements.

The project scope shall include the following task breakdown or something similar. Each subconsultant to the Prime Consultant shall have its scope of work in a separate task.

- Task 1 – Management / Coordination / Administration
- Task 2 – Topographic Survey and Right of Way Mapping (DEA)
- Task 3 - Geotechnical Analysis (Sage)
- Task 4 – Structural Engineering (Sargent)
- Task 5 – Hydraulics and Hydrology Services (NHC)
- Task 6 – Arborist Services
- Task 7 – Cultural Resources Services (SWCA)
- Task 8 – Environmental Fieldwork and Mitigation (DEA)
- Task 9 – Environmental Compliance and Permitting
- Task 10 – Stormwater Analysis and Design
- Task 11 – Public Outreach
- Task 12 – Utility Coordination (DEA)
- Task 13 – 60% Design
- Task 14 – Final Design
- Task 15 – Utility Design (DEA)
- Tasks 13-15 Trail Design key elements include:
    - Fill and cut slopes
    - Retaining walls
    - Stormwater conveyance and LID requirements
    - Landscaping and restoration
    - Urban trail features
    - Wet and dry utility relocation
    - Golf course netting and delineation with trail
    - Illumination modifications
    - Irrigation modifications
    - Constructability review

- Task 16 – Bid Assistance

Segments A2, B, D, and Palermo Spur will be designed as one trail project under one plan set for deliverables.

Segment A2:
- Limits: At Brewery Park connecting at east end of parking lot approximately 125 LF from underpass of Capitol Blvd to E Street Intersection.
- Length along trail alignment: Approximately 965 LF

Segment B:
- Limits: Connection point from Craft District Trail Construction at Tumwater Valley Dr SE to southeast of Valley Athletic Club where the trail ties into cul-de-sac dead end of M Street. Note: The original Segment B trail segment started from E Street intersection, however approximately 1000 LF section was removed along the frontage of Craft District Development improvements to Tumwater Valley Dr SE connection.
- Lenth along trail alignment: Approximately 2220 LF
- New mid-block crossing along Tumwater Valley Dr SE where trail crosses from alignment along eastside of Tumwater Valley Dr SE to westside of Tumwater Valley Dr SE.
- Existing City Illumination Pole Relocation.
- Coordination with the Craft District Development.

Segment D:
- Limits: End of Segment C up to the Pioneer Park parking lot connection.
- Length along trail alignment: Approximately 1630 LF
- Pedestrian Bridge over Deschutes River
- Pedestrian Bridge over Pioneer Park wetland waterway
- Golf Course coordination including tee box relocations and irrigation revisions.

Palermo Park Spur:
- Limits: Intersection with Segment C up to Linda St/Trosper Rd.
- Length along the trail alignment:
- Switchback from Linda St down to bottom of hill and Palermo Park (Paved non-ADA compliant): Approximately 775 LF
- Palermo Loop from Palermo Park to DVT Connection: Approximately 1000 LF
- Trail node connection and wayfinding to direct nonmotorized users onto DVT from Linda St/ Trosper Rd.
- Review recent development up at Trosper Rd.
- ADA compliant trail to be 8-foot wide HMA pathway.

B. Project Assumptions

The following overall project assumptions are made to provide direction to the design. Specific task assumptions are identified at the end of each Task:

- The project will follow local requirements for design, as well as state and federal agency requirements for environmental documentation, as applicable.
- Submittal of the final stamped PS&E bid documents are dependent on comment and review process for environmental permitting and acceptance timeline by stakeholders and decision makers at City as well as construction funding. The Consultant will not proceed with PS&E post 90% until direction is provided from City.
- At this time, the project will be bid as one project for length of Segments A2, B, D, and Palermo Spur as one deliverable.
- At this time, improvements and construction access will remain within the existing City-owned property and right-of-way (ROW). Right-of-way and permanent and/or temporary easement support services are not included in this Contract, but may be required for construction of the project.
- All new retaining walls are assumed to be gravity block retaining walls using Redi-Rock blocks, unless specifically noted otherwise.
- Large scale sewer and drinking water main improvements are not anticipated. However, some existing underground wet utilities may require spot relocations.
- Aerial utility undergrounding is not included in this contract.
- Utility poles and aerial facilities along with City lighting facilities along Tumwater Valley Dr SE. and Capitol Blvd SE may require relocation.
- The Consultant shall prepare all drawings using AutoCAD or Civil3D.
- The trail will be designed utilizing the guidance of the WSDOT Design Manual Division 15 – Pedestrian and Bicycle Facilities and AASHTO, where applicable.
- The 30% (3-span bridge only), 60%, 90%, Final Design, and Bid Documentation level of effort for all tasks within this scope is based on the alignment and design elements identified as part of the 2018 preliminary design project with the exception of Palermo Spur which was not previously designed, and will be new layout.
- Portions of the 2018 Segment B design are in the mapped floodway.

C. City-Provided Items:

- All 2018 preliminary design plans and documentation.
- Right of entries for surveying, geotechnical exploration, design, and/or construction, as required.
- Submittal reviews, comments, and approvals (one consolidated set of comments per submittal).
- Public notices, property owner mailings, postage.
- Grant funding documentation, if any.
- Host and update the City's project website and/or other City social media postings with content provided by the consultant.
- Meeting room arrangements for stakeholder engagement.
- Participation in public outreach efforts.
- Existing record drawings (as-built plans), horizontal and vertical monumentation, adjacent development plans, geotechnical reports, environmental reports, GIS maps, CAD drawings, and other applicable information, if available.
- Existing transportation analysis reports, counts, and models, if available.
- City boilerplate contract documents and General Special Provisions (GSPs) in electronic format.
- Contact information for franchise utility providers within the project area.

- City provided services including pothole for all potentially conflicting utilities identified by the consultant team.

D. Consultant Deliverables

Deliverables prepared by the Consultant are identified at the end of each Task.

E. Scope of Work

1. Task 1 – Management / Coordination / Administration

1.1. The Consultant will provide continuous project management services for the project duration (estimate 18 months) including:

- Consultant team management
- Prepare project schedule
- Maintenance of Schedule and Budget
- Progress Reports
- Schedule and budget monitoring
- Coordination with City staff via phone, email, Microsoft Teams, and in-person meetings
- Record keeping and design project closeout management (production in Task 1.4)

1.3 The Consultant will provide continuous administrative services for the project duration (estimate 18 months) including:

- Project set-up
- Subconsultant administration
- Review subconsultant deliverables
- Preparation of monthly invoices with progress reports. Progress reports will include information like tasks worked on monthly billing cycle, progress percentages on tasks, forecasting next month's tasks and deliverables.

1.4 The Consultant will prepare for and conduct biweekly design coordination meetings with City Project Manager and other Staff, as needed. These 30 minute meetings will be held via Microsoft Teams unless otherwise requested by the City.

1.5 Submittal and Documentation: The Consultant shall prepare, review, catalog, and submit all project deliverables to the City in digital format at each milestone and the end of the project. The digital documentation shall be arranged in a folder system matching the Project Tasks, i.e. documents completed in Task 2 should be sent to the City in a Task 2 folder.

Task 1 Assumptions:

- *For project deliverables and closeout of submittals, The Consultant's cloud based document sharing site, Project Web, will be used to share files. Folders shall be set-up to match tasks names and deliverables that can be recognized for all users with access.*

Task 1 Deliverables:

- *Monthly invoice with progress report of work done, work in progress, and anticipated work in next month's invoice. Invoice will include percent complete for each task to track earned value.*
- *Biweekly meeting minutes*
- *Project schedule and updates using Microsoft Project (estimated preliminary schedule + 2 updates) (PDF)*
- *Project Closeout Documents (Electronic Zip Drive)*

2. Task 2 – Topographic Survey and Right of Way Mapping (DEA)

2.1. The Consultant will perform supplemental topographic survey and mapping in areas requiring updated or additional information to support the design work for Segments A2, B, D and Palermo Spur. Survey work will focus on locations with outdated, missing, or incomplete survey information as described below.

Survey limits and areas for each segment to be evaluated for survey updates as stated below:

- *Segment A2*
  - Survey will cover approximately 280 feet along the toe of the retaining wall constructed as part of the Capitol Boulevard improvements.
  - Critical area and Wetland Delineations as flagged by the biologist will be mapped.
  - Data will be provide to SCJ for incorporated into the existing Segment A2.
- *Segment B*
  - Survey will include a 40-foot-wide strip at the tie-in to existing roadway, reflecting the completed Craft District improvements along Tumwater Valley Dr SE.
  - Critical areas on the north side of Tumwater Valley Dr SE will be mapped based on flagging provided by the project biologist. No other areas will be included in this scope of topographic survey and mapping.
- *Segment D*
  - Topographic mapping will extend 150 feet on either side of river and stream crossings.
  - Cross section of the river and stream will be completed at 25 feet intervals.
  - Critical area and Wetland Delineations as flagged by the biologist will be mapped.
  - Updated survey will reflect any shifts in tee box locations.
  - Survey will also capture floodplain boundaries, stream channels, and delineated environmental features, including the Deschutes River ordinary high water line (OHWL) as flagged by the biologist.
- *Palermo Spur Trail*
  - Critical area and Wetland Delineations as flagged by the biologist will be mapped.

2.2. Additional survey needed outside of existing survey limits will be limited to 50 field hours and 50 office hours to perform additional survey outside the defined limits (e.g., due to trail realignments). If additional work exceeds these hours, the City will be notified prior to proceeding.

Task 2 Assumptions:

- *Existing survey control provided for in this contract will be verified by establishing horizontal and vertical control based on NAD83/91 horizontal datum and NGVD 29 for vertical datum throughout the project.*
- *The lateral extent of the survey updates will match the extent of the existing survey.*
- *Survey deliverable will be provided to SCJ for incorporation into the existing survey basemaps.*

Task 2 Deliverables:

- *Electronic basemaps for each segment covering the updated/infill survey areas.*

3. Task 3 – Geotechnical Analysis (Sage)

Our scope of work will be divided into three phases. The first phase will support pre-design analysis; no geotechnical explorations will be conducted during this phase. Phase 2 will consist of completing a geotechnical investigation to obtain additional subsurface soil and groundwater information to support final design. The third phase will consist of geotechnical engineering analysis and recommendations to support design of the trail segments. Specific tasks for each phase are described below.

3.1. Predesign Analysis and Consultation: Review the existing design elements and concepts and work with the team to identify key design considerations that could be optimized. Specific tasks will include:

- **Project Setup:** Initiate the project and set up billing information in support of invoicing throughout the project.
- **Attend Project Kickoff Meeting:** Participate in one project kickoff meeting with the City of Tumwater and the design team.
- **Review Geologic Hazardous Areas:** Identify and evaluate geologic hazards near the alignments that could impact on the proposed improvements and alternative alignment options.
- **Site Reconnaissance Visit:** Conduct a site visit to evaluate the existing conditions, areas of proposed improvements, and options for design alternatives being considered by the design team.
- **Attend Conceptual Design meetings:** Participate in two conceptual design meetings with the project team.
- **Evaluate Potential Design Optimizations:** Provide geotechnical input to the design team based on the existing information as the design team evaluates the existing preliminary designs and potential areas for design optimization.

3.2. Geotechnical Investigation: Supplement existing geotechnical information by completing geotechnical field work:

- **Generate Geotechnical Work Plan Memo:** Prepare a Geotechnical Work Plan Memorandum describing exploration means and methods associated with the exploration program. This work plan will be submitted to the design team and the City for review and approval.

- **Conduct Utility Locates**: Prior to mobilizing equipment, mark the proposed exploration locations and arrange for utility locates using the One-Call Utility Notification Center. In addition, private utility locators will be utilized when deemed necessary.

- **Boring Access**: Subcontract an excavator and operator to assist with drill rig access into wooded areas along Segment D and the Deschutes Valley Bridge.

- **Conduct Limited Access Borings:** Execute geotechnical borings using a limited access tracked drill rig, including:
    - **Segment A2**: Two borings to depths between about 20 and 30 feet.
    - **Segment B**: Two borings to depths between about 20 and 30 feet.
    - **Segment D**: Three borings to depths between 10 to 15 feet.
    - **Palermo Spur**: Two borings to depths between 20 and 40 feet.
    - **Deschutes Valley Bridge**: Three borings to depths between 60 and 100 feet.
    - **Contingency Borings**: Four borings to depths between 20 and 40 feet to support detailed siesmic countermeasures at segment A2, or other geotechnical challenges of the project not yet identified.
    - **Contingency - Palermo Spur Environmental**. Conduct environmental drilling procedures instead of geotechnical drilling procedures, including analytical testing of drummed soil cuttings for disposal by others, and coordination with environmental consultants and/or City related to the Palermo Wellfield Superfund Site.
    - **Contingency – Foul Weather Drilling Access**. Provide mats to be laid ahead of the tracked drill rig when accessing borings along the golf course.
    -

- **Perform Geophysical Subsurface Investigation:** Consultant will subcontract a geophysical investigation of subsurface soils using Refraction-Microtremor (ReMi) to collect shear wave velocity measurements of the soils in the upper 100 feet of the site(at the bridges).
- **Perform Groundwater Monitoring**: Complete two of the geotechnical borings with flush mount monitoring wells. Install pressure transducers and record groundwater levels for one year, including monthly equipment checks with manual readings.
- **Prepare Summary Logs and Assign Lab Testing:** Generate summary boring logs and conduct geotechnical laboratory testing on the representative soil samples obtained from the borings.

3.3. Geotechnical Design Services: Complete geotechnical engineering analysis to support the design:

- **Evaluate Field and Laboratory Data:** Generate estimates of the soil strength and other properties needed to evaluate the effects the subsurface conditions will have on the proposed improvements.
- **Develop Updated AASHTO Seismic Design Parameters:** Determine the Site Class seismic parameters in accordance with AASHTO requirements.
- **Evaluate Liquefaction and Lateral Spread Potential**: Evaluate the susceptibility to liquefaction of the materials at the bridges for the design event required by AASHTO. If liquefication and lateral spreading are anticipated following the design seismic event, Consultant will assess the potential impacts on the proposed improvements.
- **Develop Updated Bridge Foundation Recommendations:** Review foundation recommendations in the draft geotechnical report and perform additional analyses of foundation vertical capacities and lateral resistance for the preferred foundation type using the AASHTO LRFD Bridge Specifications and the Washington State Department of Transportation (WSDOT) Geotechnical Design Manual (GDM).
- **Generate Bridge Abutment Lateral Earth Pressures:** Provide lateral earth pressure recommendations for proposed bridge abutment structures and wing walls. Earth pressure diagrams for both static and seismic loading conditions will be generated using the procedures outlined in the WSDOT GDM.
- **Develop Trail Retaining Wall Design Parameters:** Develop design parameters and earthwork recommendations for gravity block and structural earth walls (SEWs) such as those produced by Redi-Rock, which are likely to be the preferred wall types for most situations. Consultant will also evaluate other potential wall types, where appropriate.
- **Evaluate Slope Stability for Proposed Walls, Cuts and Fills:** Evaluate global stability of the proposed retaining structures, permanent cuts, and permanent fills. Global stability will be evaluated using the limit equilibrium approach under both static and seismic loading conditions.
- **Evaluate Impacts on Geologic Hazards:** Evaluate geologic hazards at the site and impacts of the proposed improvements on the geologic hazards.

- **Develop Luminaire Foundation Design Recommendations:** Provide geotechnical recommendations for design and construction of luminaire foundations in accordance with WSDOT and/or Tumwater standard plans and procedures.
- **Provide Geotechnical Recommendations for Waterline.** Provide recommendations for pipe bedding, backfilling, and shoring and dewatering considerations for the proposed waterline in Trail Segment D.
- **Review Existing Pavement Recommendations:** Review existing pavement recommendations provided in the preliminary plans, and provide updated recommendations as needed.
- **Contingency Geotechnical Fieldwork/PM/Engineering/Reporting:** This task is reserved for providing geotechnical support on challenging and/or currently undefined geotechnical tasks, including but not limited to seismic design in segments A2 and B and coordination on environmental aspects of work within the Palermo Spur.
- **Draft Geotechnical Engineering Report:** Prepare a draft geotechnical engineering report summarizing the results of the review and subsurface investigation and presenting conclusions and recommendations.
- **Draft Report Comments:** Address questions and comments on the draft report and provide consultation to the design team on geotechnical aspects of the project as the design progresses to final design.
- **Final Geotechnical Engineering Report:** Finalize the report after receiving review comments from the design team.
- **Geotechnical Data Report:** Following delivery of the final geotechnical report, Sage will issue a final geotechnical data report for inclusion in bid documents.
- **Consultation, Project Management, and QA/QC:** Provide project management and correspondence with the design team to all geotechnical related aspects of the project. Correspond with the City and the design team in the form of meetings, emails, and telephone calls, as necessary.

Task 3 Assumptions:

- *Traffic control will only be necessary for borings along Tumwater Valley Dr SE, and will consist of shoulder or single lane closures where necessary.*
- *The geotechnical explorations proposed herein will not be used to assess site environmental conditions. However, visual or olfactory observations regarding potential contamination will be noted. Analysis, testing, storage, and handling potentially contaminated soil and groundwater (either sampled or spoils from drilling) are beyond this scope of services. If contaminated soils and/or groundwater are encountered, the material will be properly contained on-site for disposal as mutually agreed upon without additional cost to* Sage.
- *Per the 7/10/24 site access meeting with City personnel, drilling mud will be disposed of on-site by pumping into wooded areas away from waterways. Drill spoils (sand and gravel) will be disposed of on-site in vegetated areas.*
- *Rights of entry and right of way permitting will be provided by the City at no cost to Sage.*
- *Site-specific seismic response analysis is excluded.*
- *Ground improvement design is excluded.*
- *Lateral spreading evaluations/design will be by the force-based method.*
- *The borehole locations will be identified using handheld GPS units*
- *Decommissioning of monitoring wells is excluded.*

- *Obtaining clearing and grading permits for the drill rig assess and associated excavator assistance is excluded.*

Task 3 Deliverables:
- *Electronic copy Geotechnical Work Plan Memorandum.*
- *Draft and Final Geotechnical Engineering Report.*
- *Final Geotechnical Data Report*

4. Task 4 – Structural Engineering (Sargent)

The consultant will provide structural engineering design support for the design of Segments A2, B, D, and the Palermo Park Spur (Project) which will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park.

4.1. Project Administration and Management: The consultant will provide project management services for their activities. The consultant will provide the administration services, including the project set-up, preparation of monthly invoices with progress reports, as well as the maintenance of the budget and schedule.

4.2. Public Outreach: The consultant will provide assistance to the prime consultant and the City for the public outreach efforts. The effort is expected mainly to focus on the bridge structure.

4.3. Review Existing Data: The consultant will review the existing data, reports, and CAD to understand the project. The consultant team will also visit the site to assess the conditions.

4.4. Conceptual Design Retaining Walls: The Project includes five (5) walls as specified below. It is assumed at this time that the layout of the walls shown in the 2018 preliminary design report will remain unchanged, and as such, conceptual design of the retaining walls will not be necessary. No work by the structural engineer will be performed for this Task. .

Segment	Walls	Proximity	Length
Segment A2	Wall A1	STA 0+91 LT	135 ft
	Wall A2	STA 4+56 RT	254 ft
	Wall A3	STA 2+27 RT	290 ft
Segment B	Wall B1	STA 21+65 RT	180 ft
	Wall B2 - CIP for utility	STA 21+75 RT	10 ft
Palermo Spur	Wall P1	N/A	200 ft
Segment D	No Structure.	N/A	N/A

4.5. Conceptual Design Bridge: The project includes two bridges in Segment D. The Deschutes River Bridge is a three-span bridge with a length of approximately 300 ft over the Deschutes River. The Deschutes River Slough Bridge is a 120-ft single-span bridge.

The consultant has assumed that the City has accepted the use of pre-engineered, steel pony truss bridge superstructures with a concrete walking surface. The consultant will work with bridge manufacturers as part of development of the conceptual design bridge.

The consultant will review the geotechnical investigations to select the type of foundation. A preliminary sizing of the foundations will be determined in collaboration with the

geotechnical and hydraulics engineers. The wingwalls and approach retaining walls, if needed, will be determined in collaboration with other disciplines.

A construction feasibility study is an inherent part of the conceptual design. The consultant will explore the construction methods of bridge structures to investigate the feasibility of the design as well as the impacts on right-of-way and permit requirements. The consultant will provide a preliminary bridge design for stakeholder discussions.

Consultant assumes that the type, size, and location of the Deschutes Slough Bridge will not change from that shown in the 2018 predesign study. Consultant also assumes that the type will not change, but size and location of the Deschutes River Bridge may need to change due to hydraulic and/or permitting requirements.

Bridges	Proximity	Length
Deschutes River Bridge	0+80 to 3+70	300 ft (three Span)
Deschutes Slough Bridge	9+93 to 10+13	120 ft (Single Span)

4.6. Final Design Retaining Walls: Under this Task, the consultant will progress the design of the retaining walls, as specified above, from the concept level to the contract documents. The wall design responsibilities will follow WSDOT Geotechnical Design Manual, Appendices 15-A and 15-Q for the Redi-Rock pre-approved proprietary walls requirements. The consultant will collaborate with the City and the geotechnical team to determine the settlement requirements.

The consultant will provide the geotechnical designer with details for the design of the wall for external stability (sliding, overturning, and bearing), compound stability, and overall (global) stability of the wall. The wall supplier shall be responsible for designing the wall for internal stability (structural failure of wall slope components, including the soil reinforcement, facing, and facing connectors to the reinforcement, and pullout), for all applicable limit states (as a minimum, serviceability, strength, and extreme event). The wall supplier shall also be responsible for designing the railing barrier connection and the distribution of the impact load into the soil reinforcement (if used). The consultant will be responsible for the design of the railing barrier and trail features connections.

The design will be in accordance with the latest WSDOT Bridge Design Manual, WSDOT Geotechnical Design Manual, and AASHTO LRFD Bridge Design Specifications.

- **60% Retaining Wall Submittal:** The 60% package is a constructability review package.

  The consultant will progress the design to a constructability review stage. The consultant will prepare the element sizing and inform SCJ of revisions needed to the plans as needed per the geotechnical, permitting, and right-of-way reviews. The cost estimate will be per the structural quantities. The quantities will be based on the structural elements' sizes.

  The consultant will provide the list of required General Special Provisions and project-specific Special Provisions. The project-specific Special Provisions will be developed at a later stage.

- **90% Retaining Wall Submittal:** The 90% package is a pre-contract review package.

  The consultant will address the comments from the previous package.

  The consultant will progress the design to an essentially final PS&E package based on the final geotechnical and hydraulics recommendations. The cost estimate and quantities will be updated per the structural quantities.

  The complete project General Special Provisions and the project-specific Special Provisions will be prepared.

- **Retaining Wall Bid Documents Submittal:** The Bid Documents package will be the signed plan (by SCJ), specifications, and Estimate package for the contract advertisement. The consultant will address the comments from the previous package. The consultant will progress the design to the contract-ready level. The bid documents will be sealed by a licensed Professional Engineer (PE) in the State of Washington.

4.7. Final Design Bridge: The consultant will progress the design of the bridge structure from the 2018 conceptual design to the Contract documents. The design of the pre- engineered bridge types that were selected in the conceptual design will be reviewed.

The bridge manufacturer is responsible for the design and detailing of the superstructure. The consultant will collaborate with the possible manufacturers to obtain the superstructure parameters for the substructure design. The consultant will collaborate with other disciplines in the trail features connected to the bridge. The consultant will coordinate with the bridge manufacturers for the details on the trail features connected to the bridge. The superstructure design requirements will be presented schematically in the plans and as a performance-based specification in the project specifications.

In collaboration with the hydraulics and geotechnical engineering teams, the consultant will design the substructure, wingwalls, and approach retaining walls (if needed). To the extent feasible, the substructure will be designed to allow multiple bidder options.

The design will be in accordance with the latest WSDOT Bridge Design Manual, WSDOT Geotechnical Design Manual, AASHTO Guide Specifications for the Design of Pedestrian Bridges, and AASHTO LRFD Bridge Design Specifications. The design plans and number of sheets are estimated as shown below:

- **30% Bridge Submittal:** The 30% package is a geometric design review package for the 3-span bridge only.

  The consultant will prepare the layout plan and elevation of the bridges. The bridge spans, widths, and profiles will be finalized. The catalogue cuts, manufacturer, and general details of the superstructures will be selected at this phase. The types and sizes of substructure elements, such as the foundations and wingwalls, as well as the approach retaining walls (if needed), will be progressed to the level required to complete the constructability review. The construction method, over-excavation, and approximate shoring limits will be prepared for the environmental documents.

  The preliminary cost estimate per the manufacturer's quote, plan area of the bridge, and the facia area of the approach walls will be determined.

- **60% Bridge Submittal:** The 60% package is a constructability review package for both

bridges.

The consultant will prepare the required documents for the superstructure and review the manufacturer's details and designs. The trail features on the bridge will be identified, located, and coordinated with the manufacturer to detail the bridge.

The consultant will prepare the substructure and foundation sizing and revise the plans as needed per the geotechnical, permitting, and right-of-way reviews.

The cost estimate will be per the structural quantities. The quantities will be based on the structural elements' sizes and the bridge manufacturers' estimates.

The consultant will provide the list of required General Special Provisions and project-specific Special Provisions. A draft Special Provision for the bridge superstructure will be prepared for the city's review. The remaining project-specific Special Provisions will be developed at a later stage.

- **90% Bridge Submittal:** The 90% package is a pre-contract review package.

  The consultant will address the comments from the previous package and progress the design to an essentially final PS&E package based on the final geotechnical and hydraulics recommendations.

  The cost estimate and quantities will be updated per the structural quantities and the manufacturer's quote of the superstructure.

  The complete project General Special Provisions and the project-specific Special Provisions will be prepared.

- **Bridge Bid Documents Submittal:** The Bid Documents package will be the signed plan, specifications, and Estimate package for the contract advertisement. The consultant will address the comments from the previous package. The consultant will progress the design to the contract-ready level. The bid documents will be sealed by a licensed Structural Engineer (SE) in the State of Washington. The signed and sealed bridge superstructure design sheets will be the manufacturer's responsibility, and they will submit them during construction.

4.8. Final Design Trail Features: The project includes structural site elements referred to as trail structures. The trail structures are typical park structures. The type, size, and location of the trail structures are provided by the urban planners.

The consultant will review the standard trail structure for safety. The consultant will also collaborate with the geotechnical engineers to investigate foundation feasibility and assist with determining spacing and height of support poles for netting and parameters of foundation design.

Segment	Trail structures	Proximity	Quantity
Segment A2	Street/ped Lighting for trail on side mount on wall Assume Tumwater standard foundation details for lighting at grade unless bearing pressures review structural review.	Near under pass of Capitol Blvd. and near crossing	4 EA
Segment B	Street/ped Lighting for trail on side mount on wall Assume Tumwater standard foundation details for lighting at grade unless bearing pressures review structural review.	Along Tumwater Valley Dr SE STA 16+00 – 23+00	2 EA
	Information kiosk	In front of Tumwater Valley Athletic Club STA 25+50	1 EA
	Trail Netting and foundations Assume pole spacing 40 LF and vinyl strung netting 15 min height. Assume foundation detail for each pole the same design unless bearing pressures change throughout alignment.	STA 25+00 -29+00	11 EA pole foundations
Palermo Spur	No structure.	N/A	N/A
Segment D	Information kiosk structure details and foundations	STA 15+50	1 EA
	Trail Fence Canopy	STA 0-1+00	100 ft
	Trail Netting and foundations Assume pole spacing 40 LF and vinyl strung netting 15 min height. Assume foundation detail for each pole the same design unless bearing pressures change throughout alignment.	STA 3+00-8+50	14 EA pole foundations

Under this task, the consultant will progress the design of the trail structures, as specified above, from the 2018 concept level to the contract documents. The trail structures will be manufactured-designed elements. The consultant will be responsible for designing the foundation and the foundation connections, as well as the loading on the supporting retaining walls or other structures. The trail features on the bridges will be addressed in

the previous section.

The design will be in accordance with the latest WSDOT Bridge Design Manual, AASHTO LRFD Bridge Design Specifications for guidelines on material design (i.e. reinforced concrete), and LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. The design plans and number of sheets are estimated as shown below:

- **60% Trail Structure Submittal:** The 60% package is a constructability review package.

  The consultant will prepare the foundation sizes and connection details for the trail structures. The cost estimate will be per the structural quantities. The quantities will be based on the structural elements' sizes.

  The consultant will provide the list of required General Special Provisions and project-specific Special Provisions. The project-specific Special Provisions will be developed at a later stage.

- **90% Trail Structure Submittal:** The 90% package is a pre-contract review package.

  The consultant will address the comments from the previous package. The consultant will progress the design to an essentially final PS&E package based on the final geotechnical recommendations.

  The cost estimate and quantities will be updated per the structural quantities.

  The complete project General Special Provisions and the project-specific Special Provisions will be prepared.

- **Trail Structure Bid Documents Submittal:** The Bid Documents package will include the signed plan, specifications, and Estimate for the contract advertisement. The consultant will address the comments from the previous package and progress the design to the contract-ready level. The bid documents will be sealed by a licensed Civil Engineer (PE) in the State of Washington.

4.9. Bid Assistance: The consultant will assist the City during the bid period to answer any questions that arise concerning the above structural PS&E documents and will assist the City in preparing any addenda required to the extent of the budget provided in this contract. The consultant will provide this task on an as-needed basis. The consultant shall obtain authorization from the City prior to providing these services.

Task 4 Assumptions:

- *Task 4.1 Project Administration and Management:*
- *One kick-off meeting will be attended by two consultant staff.*
- *One consultant staff member will attend three (3) 30-minute online meetings.*

- *Task 4.2 Public Outreach:*
- *One consultant staff member will attend a 60-minute Public Outreach online meeting.*
- *Public outreach Meeting and material preparation are assumed to be four (4) hours.*

- *Task 4.3 Review Existing Data:*
- *Two consultant staff will attend the site visit.*

- *Task 4.4 Conceptual Design Retaining Walls:*
- *The walls will be City of Tumwater Standard (Redi-Rock retaining wall system). The*

consultant will confirm that the standard walls are suitable for the site constraints.

- *Task 4.5 Conceptual Design Bridge:*
- *The bridge superstructure will be a pre-engineered bridge.*
- *The City has selected to use a pre-manufactured pony truss with concrete walking surface for the superstructure. The substructure on all concepts is assumed to be deep pile foundations.*
- *The preliminary substructure design intends to confirm that the bridge construction is feasible and the parameters of bridge type best fit for the site conditions.*

- *Task 4.6 Final Design Retaining Walls:*
- *Where supporting the trail, the walls will be designed for the surcharge of a single H10 Truck live load for the maintenance vehicle.*
- *The consultant will review and use the existing 2018 wall details, such as the wall railing, utility knockouts, pole connections, provide supporting design calculations, and adjust as needed. Only minor detail revisions are expected.*
- *Task 4.7 Final Design Bridge:*
- *An 18"-diameter reclaimed water line will be hung from the bridges.*
- *The bridges will be for pedestrian use. The live loads will include a vehicular live load as required by the AASHTO Guide Specifications for the Design of Pedestrian Bridges.*
- *No detailing will be completed until the final trail alignment and bridge type is approved.*

- *Task 4.8 Final Design Trail Features:*
- *The trail structure layouts and locations will be provided by others.*
- *The trail structures are designed by the supplier. The consultant will review the design and details to confirm they are consistent with the project requirements.*
- *No detailing will be completed until city approves trail alignment and features.*
- *The consultant will review and use the existing 2018 canopy fencing and kiosk details, provide supporting design calculations, and adjust as needed. Minor detail revisions are expected.*
- *The consultant will provide design and detailing for the foundations of the trail features.*
- *The soil properties will be sufficiently uniform so that one foundation design will be performed for the segments.*

- *Task 4.9 Bid Assistance:*
- *We estimated up to 12 hours of senior structural engineering time on an as-needed basis.*
- *We estimate up to 8 hours of drafter time on an as-needed basis for any design changes during the bid.*

<u>Task 4 Deliverables:</u>

- *Conceptual Design Retaining Walls – Segments A1, B, and D*
  - *Review Trail plans and email communications.*

- *Conceptual Design Bridge – Segments A1, B, and D*
  - Bridge plan, elevation, and bridge cross-section with enough detail for discussion with City.
  - Bridge Catalogue cut.

- *30% Design Submittal – Segments A2, B, and D*
  - *30% Retaining wall Plans*
  - *30% Bridge Plans*
  - *30% Trail feature review and email communications.*
  - *30% Opinion of Cost*

- *60% Design Submittal – Segments A2, B, and D*
  - *60% Retaining Wall Plans*
  - *60% Bridge Plans*
  - *60% Trail Structures Plans*
  - *60% Opinion of Cost*
  - *Draft Pre-engineered Bridge Superstructure Special Provisions.*
  - *List of any General Special Provisions and any Special provisions.*

- *90% Design Submittal – Segments A2, B, and D*
  - *90% Retaining Wall Plans*
  - *90% Bridge Plans*
  - *90% Trail Structures Plans*
  - *90% Opinion of Cost*
  - *Project Specifications*

- *Signed and Sealed Design Submittal – Segments A2, B, and D*
  - *Signed and Sealed Retaining Wall Plans*
  - *Signed and Sealed Bridge Plans*
  - *Signed and Sealed Trail Structures Plans*
  - *Cost Estimates*
  - *Project Specifications*

- *Bid Assistance*
  - *Bid questions answer via email or phone.*

5. Task 5 – Hydraulics and Hydrology Services (NHC)

The consultant will provide hydrologic and hydraulic analysis support for the design of Segments A2, B, D, and the Palermo Park Spur (Project) which will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park.

The proposed project will include hydrologic and hydraulic modeling and consideration of the design concept at the 30/60/90 percent design levels. The hydraulic analysis will evaluate impacts to the floodplain and floodway and assess any impacts the project may have on critical areas and will be used in support of the design revision and permitting process. In addition, a scour analysis will be used to assess the proposed bridge design and any countermeasures needed. A site investigation is needed to assess potential channel impacts at the bridge crossing and to collect data to be used in the scour analysis.

5.1. Project Management: Manage budget and schedule, provide internal quality assurance / quality control review of their deliverables prior to submission to the Prime Consultant, and provide monthly progress reports. This task also includes internal coordination between the Project Team.

5.2. Preliminary Site Investigation: A site investigation is needed to assess potential channel impacts at the bridge crossing and to collect data (Bathymetry to be collected as part of Task 2) to be used in the scour analysis.

- Conduct a site investigation to record observations, gather field measurements, and take digital photographs. Assume 2 staff for 1 day.
- Record observations of the following:

- General characteristics of the channel and adjacent floodplain in the study reach that includes the bridge crossing
- Field indicators of lateral and vertical stability of the channel
- Lateral and vertical controls
- Channel and floodplain roughness
- Large woody material
- Bed material characteristics

- If access allows during site visit, conduct up to three (3) Wolman pebble counts and / or visual characterization of bed material to be used for determining the existing sediment gradation. This information will be used in the scour calculations.
- Review available historic aerial photos to evaluate instances of past channel migration.
- Evaluate the vertical and lateral stability of the channel.

5.3. Hydrologic Analysis: Design flows have been previously developed for the FEMA Flood Insurance Study for the Deschutes River. The peak discharges developed for that study, including the 10, 25, 50, and 100-year floods will be utilized for the hydraulic analysis. Hours for this task include the effort to obtain the peak discharges, input them into the model, and subsequent model validation.

5.4. Hydraulic Analysis: The hydraulic analysis will be used to assess any impacts the project may have on critical areas, the floodplain, floodway, and will be used in support of the permitting process. Documentation of any floodplain impacts are required for this project. The project must also show that any encroachment into the regulatory floodway will not cause any rise in water surface elevations (zero-rise floodway analysis).

- The FEMA effective one-dimensional HEC-RAS model, developed for the 2014 Flood Insurance Study (FIS), will be used to perform a hydraulic analysis of the Deschutes River in support of the proposed trail design and river crossing.
- The proposed design will be assessed at the 30/60/90 percent submittals. Changes to the design will be incorporated into the HEC-RAS model to ensure that the design continues to meet the FEMA no-rise criteria.
- 100-year water surface elevations will compare effective, existing, and proposed conditions using the FIS and the differences summarized in the Hydraulic Technical Memo.
- A zero-rise floodway analysis will be conducted.
- Coordination with the proposed channel protection project that is occurring upstream of this trail project to ensure the channel protection project has the changes to their downstream condition.

5.5. Scour Analysis: A scour analysis will be used to assess scour impacts the proposed bridge design and to determine any scour countermeasures needed.

- Conduct a scour analysis at the river crossing following the guidelines as outlined in

HEC-18, Evaluating Scour at Bridges (Fifth Edition) to support the design of scour countermeasures and bridge foundations.

- Calculate total scour at the bridge as appropriate.
- Coordinate with the structural and geotechnical engineers on the design of the scour countermeasures.
- The scour analysis of proposed design will be assessed twice, once at approximately the 30 percent design level and again at approximately the 90 percent design level.
- Evaluate lateral migration and long-term degradation risks.

Hydraulic Technical Memo: At the 60 percent level, prepare a Draft Hydraulic Technical Memo that documents the hydrologic and hydraulic analysis, including scour analysis, and countermeasure recommendations, FEMA rise criteria, and submit for review. Prepare a response to review comments and incorporate changes into a Final Hydraulic Technical Memo.

5.6. Permit Support: This task encompasses as-needed permitting support that may be needed by the design team. Examples of permit support may include answering questions by the permitting team, preparation of figures in support of permitting documents, and filling out SEPA documentation.

Task 5 Assumptions:

- *Task 5.2:*
- *Site visit not to exceed six (6) hours and will be attended by up to two (2) consultant staff.*
- *Geotechnical borings will be performed by the Geotechnical Engineer and the results provided to the design team. Boring results will be used to inform the scour analysis.*
- *City will provide all necessary Rights of Entry.*
- *The City will be notified prior to the site visit.*

- *Task 5.3:*
- *No additional hydrologic inputs or analysis will be performed.*
- *If the bridge design requires in water work additional gage analysis will be required to estimate construction season flows.*

- *Task 5.4:*
- *At the 30 percent design level, the existing one-dimensional HEC-RAS model developed for the Deschutes River FIS will be obtained from FEMA and used for the analysis of the existing condition. If the model developed for the FIS has been updated with more recent geometry, the City will obtain and provide the most recent model. This model will be considered the Base Model.*
- *For the analysis of proposed design, a duplicate effective one-dimensional HEC-RAS model will be developed from the Base Model.*
- *The Base Model obtained at 30 percent will be carried through the project duration.*
- *The hydrologic data developed as part of the Hydrologic Analysis task will be used for the hydraulic analysis of the proposed design.*
- *The upstream channel protection project is upstream of this project and will not affect water surface elevations at our project site. The trail project could affect water surface elevations at the channel protection site and some coordination with them is needed.*
- *The proposed design will not result in an increase in Base Flood Elevation or a rise in the Regulatory Floodway. Therefore, this SOW does not include time and materials for a*

Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR).

- *Task 5.5:*
- *Contraction scour and abutment scour will be calculated using the FHWA Hydraulic Toolbox application and HEC-RAS outputs.*

- *Task 5.6 & 5.7*
- *Permit Applications will be prepared and coordinated by the consultant.*

Task 5 Deliverables:
- *Task 5.1:*
- *Monthly invoices and progress reports.*

- *Task 5.2:*
- *Summary memo documenting the site investigation findings (Final).*

- *Task 5.3 & 5.4:*
- *Results will be part of the Hydraulic Technical Memo.*

- *Task 5.5:*
- *Results will be part of the Hydraulic Technical Memo.*

6. Task 6 – Arborist Services

The arborist will provide arborist analysis and observation support for the design of Segments A2, B, D, and the Palermo Park Spur (Project) which will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park.

6.1. Background Document Review and Conceptual Site Walk: The consultant will examine the background documents, focusing on previous designs, historical aerials, as well as park, trail, and master plans for Tumwater and Thurston County. This review period will also include an examination of the municipal code.

6.2. Tree Health Assessment: Tree Assessment shall be provided by the consultant for the project. The tree assessment will determine existing trees' health and long-term viability along the edge of the trail. The assessment will examine existing trees' age, trunk diameter, structural integrity, biological impacts, expected canopy size, and tolerance to construction impacts. The Arborist shall note how canopy size and trunk placement can adversely impact the visibility for vehicles, pedestrians, and bicyclists.

6.3. Design Review: As the design advances through the preliminary, 30%, 60%, and 90% submittal phases, the consultant will review potential tree conflicts and propose solutions to maximize preservation. This process includes site visits with the Consultant and Client to evaluate and refine solutions in the field.

During the design review, the consultant will define tree protection zones to be incorporated into the construction plan set. In addition, the consultant will identify specific interaction zones where innovative strategies are applied to support preservation goals. Tree protection specifications and associated strategies will be added into the existing preliminary arborist report.

6.4. Public Involvement: The consultant will be part of the public process, as requested by the Consultant and Client, to address public concerns about trees and the landscape.

The consultant will create graphics to assist in understanding the interaction between the trees and the proposed design.

6.5. Final Design Communication: The consultant's final arborist design report will consider the proposed improvements and if the removal and replacement of existing trees will better serve not only the improvements but also the long-term health of the urban forest.

6.6. Bid Period Services: The consultant will be available to answer any pre-bid questions.

Task 6 Assumptions:

- *The current Tumwater Municipal Code will be applied to the project.*
- *Two site visits as part of the tree health assessments.*
- *One visit with the Consultant and Client during the design review.*
- *Graphics for one four-hour public meetings, including preparation strategy meetings.*
- *Both preliminary and final arborist reports will go through three revisions.*
- *The consultant will attend one pre-bid walk-through, if required.*
- *The consultant has not scoped time for grant application assistance.*
- *The consultant will provide the arborist with the survey in a format compatible with AutoCAD Lt for the initial tree assessment.*
- *The consultant will update the arborist bi-monthly on the project's progress, schedule, and expectations.*
- *City will provide any available prior arborist reports performed along the stretch of the Deschutes Valley Trail.*

Task 6 Deliverables:

- *Task 6.2:*
- *CAD files indicating critical root zones*
- *Spreadsheet detailing specific trees of concern*

- *Task 6.3:*
- *Construction details for tree interactions*
- *Tree protection specifications addressing final design*
- *Tree assessment arborist report (preliminary report)*

- *Task 6.4:*
- *Graphics for public involvement, discussing trees in project boundaries*

- *Task 6.5:*
- *Arborist information shall be used on the plan as required for all phases of design and shall be noted on the design plans*

7. Task 7 – Cultural Resources Services (SWCA)

The consultant will provide cultural resources support for the design of Segments A2, B, D, and the Palermo Park Spur (Project) which will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park.

The purpose of this task is to conduct cultural resources analyses needed to comply with Section 106 of the National Historic Preservation Act. The analyses will supplement and extend previous analyses completed by SWCA/NWAA (Shantry and Piper 2012) and SWCA (Hannum and Shantry 2017).

7.1. Section 106 Regulatory Assistance: The requirement for a permit from the US Army Corps of Engineers subjects the project to compliance with Section 106 of the National Historic Preservation Act. Under Section 106, USACE must consider the effects of the project on historic properties. The USACE follows the Appendix C process, meaning that it does not initiate Section 106 consultation prior to cultural resources studies. The Consultant will prepare project introduction correspondence for the City to submit to SHPO and Affected Tribes (Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation) to advise them of the project and future Section 106 consultation under USACE. The correspondence will provide a project description, map of the proposed Area of Potential Effects (APE) for the project, and proposed methods for evaluating potential effects.

7.2. Background Research: The consultant will conduct background research of the Segment A2, B, D, and Palermo Spur trail segments, with a main goal to identify the probability for buried archaeological sites to be present within the project area. Research will include a records check at the Department of Archaeology and Historic Preservation's (DAHP) WISAARD database to identify any archaeological sites or historic structures within the project area. Other sources may include available nearby geotechnical data, the University of Washington Libraries, and SWCA's internal library. SWCA previously conducted background research for other segments of the trail, which will form the basis for this work.

7.3. Archaeological Survey: The consultant will conduct archaeological surveys along Segments A2, B, D, and Palermo Spur. Prior to the survey, SWCA will request the completion of a One-Call utility locate in accordance with Washington State law. Archaeological survey shall consist of pedestrian reconnaissance ("surface survey") and excavation of up to 12 shovel probes at previously unprobed locations deemed to be "high probability" for buried archaeological resources by the consultant, based on its observations during the pedestrian reconnaissance. During pedestrian reconnaissance, SWCA will assess the presence/absence of culturally modified trees (CMTs). Probes will be excavated using a round nosed shovel with spoils screened on to a tarp. Probes will measure 30-40 cm in diameter and extend to 1) 1.0 meter; 2) intact glacial deposits, or 3) until impassable conditions are encountered (whichever comes first). Artifacts (if encountered) will be documented in the field; surface artifacts will be left in place, excavated artifacts will be reburied in the shovel probe from which they originated. Probes will be backfilled upon completion. Up to two archaeological sites will be recorded on a DAHP Archaeological Site Form.

7.4. Historic Property Inventory: Tumwater Falls Park is older than 50 years and, therefore, meets the minimum age threshold for listing on the National Register of Historic Places and needs to be studied as part of this undertaking for compliance with Section 106 of the NHPA.

Architectural History Background Research
The Consultant Architectural Historians will conduct a mixture of in-person and digital research on the history of the region and the individual properties located in the APE, specifically those properties located within Tumwater Falls Park. The background research will include a search of online newspaper articles, archival documents, historical maps, photographs, building permits, and other relevant information available from local libraries, historical societies, and a variety of online repositories and databases.

Architectural Survey & Documentation
The consultant will conduct an architectural history/built environment survey of the

APE, focused on the historic- age properties present. SWCA staff will conduct a Historic Property Inventory (HPI) of the Tumwater Falls Park, document it on a SHPO HPI form, and provide a recommendation regarding its eligibility for listing in the National Register of Historic Places (NRHP), as well as an analysis of potential effects of the project to the park, including any impacts to its historic integrity. The documentation will be conducted and reviewed by our team of architectural historians who meet the Secretary of the Interior's Professional Qualifications Standards for Architectural History and History. All documentation will be prepared in accordance with guidance published by DAHP and the National Park Service.

7.5. Cultural Resources Assessment Technical Report: The consultant will prepare a Cultural Resources Report that will meet the reporting standard requirements of DAHP and the Secretary of the Interior and assist in meeting the requirements of the Section 106 review. The report will supplement and extend background research previously prepared by SWCA. In preparing the report, the consultant will review and incorporate, as needed, project designs, maps, descriptions, and existing and new geotechnical borings. The report will provide results of the archaeological survey and HPI, recommendations regarding the NRHP eligibility of cultural resources, and recommendations for any follow-on work. If approved by the city and the USACE, SWCA will submit the final Cultural Resources Report to WISSARD for DAHP review.

7.6. Archaeological Resources Inadvertent Discovery Plan: The consultant will prepare an Archaeological Resources Inadvertent Discovery Plan (IDP) for use during project construction. The IDP will contain any special provisions required by USACE.

Task 7 Assumptions:

- *Up to 12 shovel probes will be excavated. No subsurface site boundary delineation will be necessary.*
- *USACE will consult with SHPO, Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation.*
- *City will obtain/furnish rights-of-access.*
- *City will notify Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation of the survey and invite representatives to observe the work.*
- *Up to 2 archaeological sites will be encountered and recorded. CMTs may be recorded as an archaeological site.*
- *Golf Course will have been recorded and evaluated for NRHP under cultural resources assessment for Segment C.*
- *Up to one cultural resources technical report will be developed under this scope of work including both archaeological investigation results and architectural history assessment results.*
- *Up to one inadvertent discovery plan will be developed under this scope of work.*
- *Up to 1 HPI form will be prepared for Tumwater Falls Park.*
- *The HPI will be conducted at the Reconnaissance Level, as outlined by DAHP.*
- *The consultant will review existing and new geotechnical data for the project, but will not conduct archaeological monitoring during new geotechnical investigations.*
- *City will be allowed one round of review on all draft deliverables.*
- *Document revisions will require up to 4 hours of SWCA labor to address.*
- *No mitigation tasks are included in this scope.*
- *SWCA's ability to conduct fieldwork will be unimpeded by access restrictions (e.g., fences, locked gates, etc.), road construction, wildfires and air quality, landowner restrictions, COVID-related restrictions, or any other factor(s) outside of SWCA's control.*
- *No artifacts will be collected or curated. If necessary SWCA will collect and prepare artifacts for curation under a new scope of work and for an additional fee.*

Task 7 Deliverables:

- *Draft and final SHPO/Tribal letter and map.*
- *Draft and final archaeological site forms.*
- *Draft and final Historic Property Inventory form.*
- *Draft and final Cultural Resources Assessment Technical Report.*
- *Draft and final Archaeological Resources Inadvertent Discovery Plan.*

8. Task 8 – Environmental Fieldwork and Mitigation (DEA)

Predesign Analysis: The purpose of tasks 8.1 through 8.2 is to collect information on existing environmental conditions within the project alignment, in order to inform the conceptual design and to assist in comparing design alternatives.

8.1. Data Collection and Preliminary Site Investigation: This task includes reviewing background information and conducting limited site investigations to document onsite critical areas, as well as using available mapping and data to identify all other critical areas that may be present onsite along Segments A2, B, D and Palermo spur. Prior to the site visit, the Consultant will review publicly available GIS data and reports, reports and data provided to the Consultant by the City as well as other pertinent background information (e.g., historic aerial photos, etc.) to identify the presence of potential critical areas prior to conducting the field effort. Existing data that will be reviewed include the City of Tumwater and Thurston County critical area mappers, aerial photographs, NRCS hydric soils mapping, Pocket Gopher Soil Suitability Maps, National Wetland Inventory (NWI) maps, SWIFD fish distribution data, WDFW PHS data for species and habitat type, and the DNR Washington Natural Heritage Program (WNHP) plant data for sensitive plant species, among others.

Subsequent to data review, the Consultant will perform field investigations along Segments A2, B, D and Palermo Spur. consisting of:

- Wetland and stream delineations along both sides of the proposed alignment. Study area will be smaller in some areas where location of the trail is more certain (e.g., adjacent to Tumwater Valley Drive), and larger in areas where alignment shifts are more likely (e.g., river crossing).

The Consultant will delineate wetland boundary in accordance with methods defined in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (US Army Corps of Engineers [Corps] 2010) and the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987). Wetland boundaries will be flagged and flag location will be recorded using a hand-held GPS unit.

In addition to delineating the boundaries of any observed wetlands, the consultant will complete a wetland rating form as described in Washington State Wetland Rating System for Western Washington: 2014 Update Version 2.0 (Ecology Publication No. 23- 06-009). The consultant will use the results of the wetland rating to identify applicable wetland buffer extents per the City of Tumwater buffer standards in TMC 16.28.170.

The Consultant will delineate the ordinary high water mark (OHWM) of any streams observed on or near the site according to the methods in Ecology's Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State. These flags will also be recorded using a hand-held GPS unit, and photographs will be collected to characterize typical conditions.

Following the delineation, the Consultant will determine stream type using the definitions in WAC 222.16 and TMC 16.32.050. Applicable riparian buffer extents will be identified per the City of Tumwater buffer standards in TMC 16.32.065.

The boundaries of all delineated wetlands and stream/OHWMs will be surveyed in the field by a PLS (see Task 2).

For those wetlands and streams where a reconnaissance level investigation is deemed appropriate (such as on adjacent properties), the Consultant will estimate the boundaries of such features using information from previously prepared maps, supplemented by field observations and data collected with a hand-held GPS unit. Appropriate wetland ratings and stream types will also be estimated, to assess appropriate regulatory buffers. This information will be incorporated into the project basemap.

8.2. **Mazama Pocket Gopher (MPG) Screening Survey (Important to start ASAP):** Suitable soil conditions for the Olympia and Yelm Pocket Gophers, both listed under the Endangered Species Act as Threatened, are present on portions of the project site. The consultant will conduct two site surveys according to the methodology and timing requirements in the USFWS Mazama Pocket Gopher (MPG) Screening Protocol Checklist (2018). According to the checklist, sites containing less-preferred soils and are more than 600 feet from a known MPG occurrence will be visited two (2) times, at least 30 days apart. The appropriate window for site visits is between June 1 and October 31. The consultant will include the results of the surveys in the Biological Assessment, if timing allows the inclusion. The BA will also include language that commits the City will not construct in MPG habitat, unless pocket gopher survey occurs in the season prior to construction and this survey yields negative results. In addition, the Consultant will coordinate with USFWS pocket gopher staff to determine previous survey efforts in the project vicinity, document the nearest known MPG occurrence, and establish if any previous survey data exists that pertains to the project area. This scope of work includes a potential third (3rd) site visit in the event that it is requested/required by USFWS.

Final Design: For the following Task 8 elements, the Consultant will prepare documentation for local, state, and federal environmental permits and approvals, and develop appropriate compensatory mitigation for critical areas impacts. With the exception of the specific permit applications and documents discussed below, no other documentation is included in this scope. It is assumed that the project will have direct impacts to wetlands and/or streams, therefore a U.S. Army Corps of Engineers Clean Water Act 401/404 permit and a Washington Department of Fish and Wildlife Hydraulic Project Approval will be required. The presence of a federal nexus, through CWA Corps permits, will require adherence with Section 7 of the Endangered Species Act (ESA) and Section 106 of the National Historic Preservation Act (NHPA).

8.3. **Meetings and Coordination:** This task is for regular communication and coordination with the project engineers, technical staff, City staff, and for agency coordination. This includes one onsite meeting with WDFW to determine stream impacts and fish distribution, and up to one meeting with the Army Corps of Engineers (Corps), prior to JARPA submittal, and one meeting with other regulatory authorities. Environmental permitting support is expected to last approximately 12 months but may extend to 24 months.

8.4. **Critical Area, Habitat Management Report and Mitigation Plan:** Based on the background review of publicly available information regarding critical areas and field work to define and classify wetlands and streams, combined the consultant will prepare a Critical Areas Report (CAR) that addresses wetlands and Fish and Wildlife Habitat Areas along project segments A2, B, D, and Palermo Spur, in accordance with the requirements

in TMC 16.28.140 and 16.32.090.

It is anticipated that the project will impact wetlands, Fish and Wildlife Conservation Areas (FWCAs) buffers, and regulatory buffers for these features. The project will also require analysis of Geologically Hazardous Areas (TMC 16.20), which will be contained in the geotechnical report (see geotechnical services). For other regulated critical areas, it is assumed that the project will not negatively impact critical aquifer recharge areas.

The Critical Areas Report and Mitigation Plan will include the following elements:

- Executive Summary
- Introduction (purpose of the report)
- Project narrative (location, purpose and description, project schedule, responsible parties)
- Impact assessment (landscape setting, existing conditions of wetlands, streams, and buffers to be impacted, impact calculation summary tables, narrative of permanent and temporary impacts to wetlands, streams and buffers, discussion of affected functions).
- Mitigation strategy (avoidance and minimization of wetland impacts, proposed compensatory mitigation concept);
- Description of compensatory mitigation site (existing wetland acreage, vegetation, wildlife habitat, landscape position and watershed relationship, existing hydrologic regimes, topography, soils and substrate, buffer condition and function)
- Ecological processes, current and proposed
- Construction Schedule and timing restrictions
- Proposed design elements (grading, proposed mitigation activities and wetland acreage, hydrologic regimes, proposed soil conditions, planting zones, and species lists)
- Mitigation goals, objectives, and performance standards;
- Proposed site maintenance and monitoring plan (time period to be determined)
- Contingency Plan
- References;
- Appendices (site selection forms, credit-debit forms)

The report will include a detailed mitigation plan, that will be developed in parallel to the CAR as outlined in Task 8.5 and 8.6, below

8.5. Mitigation Feasibility Assessment: The Consultant shall provide assistance to the City in evaluating the feasibility of sites for natural resources mitigation for project segments A2, B, D, and Palermo Spur, consistent with both Tumwater Critical Areas code and Corps requirements. This mitigation feasibility evaluation will consist of a review of three alternatives: mitigation bank/in-lieu fee credits; on-site mitigation; and an evaluation of up to two city-owned off-site properties in the vicinity.

A site reconnaissance and functional assessment will be conducted for the onsite and City-owned properties to evaluate each site's suitability as mitigation for the project's mitigation needs. The analysis will be based on the criteria outlined in Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology 2009), and will include the following steps:

- Watershed based identification of suitable sites – solicit input from agency staff on potential mitigation sites in the watershed.

- Field reconnaissance for two (2) site visits to assess existing conditions and current functions at potential mitigation sites.
- Prepare preliminary concept sketches to assess potential functional lift/wetland credits available at the sites.

The results of the site analyses will be documented in a Mitigation Feasibility Memorandum. Following review and concurrence from the Lead Agency and key stakeholders, a single site will move forward for incorporation in the Critical Areas Report and Habitat Mitigation Plan.

A formal wetland and FWHCA delineation will be conducted at the selected mitigation site, including final rating and functional assessment.

8.6. Mitigation Design: The proposed mitigation design will be incorporated into the design plans, and will include the following elements:

- Cover Page with location map and Index (2 sheets)
- Grading plans and profiles (2 sheets)
- Site details (1 sheet)
- Landscape Plans showing proposed mitigation types, planting zones, habitat features, and plant species lists (2 sheets)
- Irrigation Plans (1 sheet)
- TESC Plans and Details (2 sheets)
- Draft Specifications (2 sheets)
- Draft Monitoring Plan – narrative (2 sheets)

Task 8 Assumptions:

- *The Consultant assumes that project activities comply with the requirements and conditions of Nationwide Permit (NWP) 14, Linear Transportation Project, including direct wetland impacts of less than 0.5 acre.*
- *The project will not trigger a Section 404 Individual Permit. If an individual permit and 404(b)(1) alternatives analysis are required, an amendment to this SOW will be necessary.*
- *The Consultant will prepare JARPA plan sheets to Corp specifications to accompany the JARPA application. It is anticipated that up to 12 sheets will be required to illustrate existing conditions, project impacts, and proposed mitigation actions. These sheets will be based on existing plan sheets being developed by the design team.*
- *On the JARPA, the Consultant will be the owner and owner's representative authorized agent and the City will serve as the project owner and signature authority*

Task 8 Deliverables:

- *The Consultant will attend up to three meetings with regulatory agencies.*
- *Draft Critical Areas Report, Habitat Management Report, and Mitigation Plan*
- *Draft Critical Areas Report, Habitat Management Report, and Mitigation Plan*
- *Draft Mitigation Feasibility Memorandum*
- *Draft Wetland and FWHCA Delineation, Selected Mitigation Site*
- *Draft Mitigation Design Sheets (14 plan sheets)*
- *Final Mitigation Design Sheets (14 plan sheets)*

9. Task 9 – Environmental Compliance and Permitting

Predesign Analysis: The purpose of task 9.1 is to collect information on existing environmental and cultural resource conditions within the project alignment, in order to inform the conceptual

design and to assist in comparing design alternatives.

9.1. Environmental Permitting Evaluation / Alternative Comparison: The Consultant will evaluate the preliminary design options with a review of field data to inform the development of a permit matrix for Segments A2, B, D, and Palermo Spur describing all relevant local, state, and federal environmental permits and approvals anticipated on the project. The matrix will describe regulated activities/permit triggers, submittal requirements, and estimated permit review timelines. In addition, the matrix will specifically call out elements that have a substantial risk to negatively affecting future project phases, including scope, schedule, and budget, and will make recommendations on strategies to manage said risk. The matrix will compare up to three design alternatives/options to compare potential permitting implications.

9.2. Communication & Coordination: This task is also for regular communication and coordination with the project engineers, technical staff, City staff, and for agency coordination. This includes one onsite meeting with WDFW to determine stream impacts and fish distribution, and up to one meeting with the Army Corps of Engineers (Corps), prior to JARPA submittal, and one meeting with other regulatory authorities. Environmental permitting support is expected to last approximately 12 months but may extend to 24 months.

9.3. JARPA Preparation: The Consultant will prepare a Joint Aquatic Resources Permit Application (JARPA) to support the City in obtaining federal permits from the Corps under the Clean Water Act sections 401 and 404 for impacts along Segments A2, B, and D. These permits will be needed for anticipated direct impact to Waters of theU.S. (wetland and streams). Based on the preliminary project information, it is assumed that the project will qualify for a Nationwide Permit (NWP)14 for Linear Transportation Projects (under 0.5-acres of permanent fill). This scope assumes the project will require a Section 401 permit from the Washington State Department of Ecology (Ecology), which will be submitted concurrently with the Corps 404 permit. The permit package will also include documentation to obtain a coastal zone management (CZM) Federal Consistency Decision from Ecology. The Consultant will prepare a set of permit drawings in the format required by the Corps to accompany the JARPA. The JARPA application will include the Critical Areas Study and Mitigation Plan (see Task 8.4).

9.4. SEPA: The Consultant will prepare documentation in compliance with the State Environmental Policy Act (SEPA) for project segments A2, B, D, and Palermo Spur. It is assumed that a SEPA Checklist is the appropriate level of documentation and the City will issue a Determination of Non-significance (DNS). We will use existing information to complete the Checklist. At this time, it is reasonable to assume that no additional studies would be necessary to complete the Checklist, other than those outlined in this scope. The SEPA Checklist will be based on 30 percent design level project plans.
The Consultant will prepare a Draft SEPA Checklist for project team review that addresses all elements of the environment per RCW Chapter 43.21C, WAC Chapter 197-11, and Tumwater Municipal Code (TMC 16.04). This task includes one virtual meeting with the project team and the City to discuss the Checklist findings and answer questions. A revised Draft SEPA Checklist and Determination of Non-Significance (DNS) will then be prepared for review by the project team. If no edits are required, the Checklist and DNS will be routed for signature by the SEPA Official.

The Consultant will then prepare the Final SEPA Checklist and DNS for publication and distribution. The Consultant will post the document on the Department of Ecology's SEPA Register to start the 14-day public review period. It is assumed the City will be responsible for posting the DNS onsite, mailing and other distribution of the SEPA documents, and

posting to the City's website.
This scope of work does not include response to comments received during the public comment period, or amendment of the SEPA Checklist based on comments received. This scope does not include support during an appeal of the SEPA Checklist. If these services are required, an amendment to the scope and budget would be required.

9.5. WDFW HPA: The Consultant will work with City staff to comply with state Hydraulic Code permitting requirements and will prepare an application for a Hydraulic Project Approval (HPA) for Washington Department of Fish and Wildlife (WDFW) that will permit any in-water and overwater work associated with stream crossings along project segments A2, B, D, and Palermo Spur. The application will be based on the 90% plan set, the technical reports described herein, and permit materials prepared for other approvals. The HPA will be submitted electronically, through the Washington State Aquatic Protection Permitting System (APPS).

9.6. Shoreline Substantial Development Permit: Based on City Code, it is anticipated that development will occur within the shoreline zone of the Deschutes River and will require a Shoreline Substantial Development Permit (SDP) under the Shoreline Master Program (SMP). The project will result in water-enjoyment use for recreation in a shoreline designation of "Urban Conservancy", per the Shoreline Master Program. The Consultant will utilize the JARPA narrative and supporting materials for a Shoreline Substantial Development application, supplemented with a Shoreline Master Program Evaluation Report and a site plan adhering to City standards to complete the required materials for the permit submittal. Attendance of Consultant staff at the required shoreline permit public hearing is included in Task 8.3 – Final Site Investigation and Meetings.

Task 9 Assumptions:

- *The Consultant will prepare only the environmental permits and approvals specifically referenced in Task 9.*
- *All City comment/edits made to the permit applications or documents will be provided in track changes mode and comments from multiple reviewers will be consolidated, with any discrepancies resolved, by the City.*
- *For purposes of this scope of services, the Consultant has assumed that the City will be the SEPA lead agency and that they will issue a SEPA determination consistent with their SEPA rules.*
- *The appropriate level of SEPA documentation is a Checklist and DNS/MDNS. If it is determined that the project will likely have significant impacts and an Environmental Impact Statement is required, this SOW would be amended.*
- *The City will be responsible for finalizing the checklist and responding to public and agency comments and will be responsible for any publication or permit fees.*
- *The Consultant assumes that any technical documents necessary for SEPA review outside the scope of this scope will be provided by the City.*
- *The Consultant assumes that project activities comply with the requirements and conditions of Nationwide Permit (NWP) 14, Linear Transportation Project, including direct wetland impacts of less than 0.5 acre.*
- *The project will not trigger a Section 404 Individual Permit. If an individual permit and 404(b)(1) alternatives analysis are required, an amendment to this SOW will be necessary.*
- *The Consultant will prepare JARPA plan sheets to Corp specifications to accompany the JARPA application. It is anticipated that up to 12 sheets will be required to illustrate existing conditions, project impacts, and proposed mitigation actions.*
- *On the JARPA, the Consultant will be the owner and owner's representative authorized agent and the City will serve as the project owner and signature authority.*

Task 9 Deliverables:

- *The Consultant will attend up to three meetings with regulatory agencies.*
- *Delineation of additional critical areas that underwent a simple reconnaissance in Phase 1, including wetland delineation forms and wetland rating forms, if applicable.*
- *Preliminary Draft JARPA form and permit drawings for City review.*
- *Draft JARPA form and permit drawings for submittal to the Army Corps of Engineers and Department of Ecology.*
- *Final JARPA form and permit drawings for submittal to the Army Corps of Engineers and Department of Ecology.*
- *Draft SEPA Checklist (provided electronically in MSWord format).*
- *Final SEPA Checklist for publication – (provided electronically in Adobe PDF format) includes edits based on one round of review comments by the City.*
- *HPA application and submittal through APPS*
- *Draft Shoreline Substantial Development Permit and Memo*
- *Final Shoreline Substantial Development Permit and Memo*

10. Task 10 – Stormwater Analysis and Design

The purpose of this task is to develop new and revised stormwater conveyance and flow control/management systems to support the proposed trail improvements and City requirements. This project is subject to the effective July 1, 2022 City drainage Design and Erosion Control Manual (DDECM) Requirements which is equivalent to the Washington State Department of Ecology Stormwater Management Manual for Western Washington (Ecology 2019).

10.1. Data Collection & Prelim Site Investigation: The Consultant will review available existing storm drainage infrastructure data, reports, models, and record drawings. The Consultant will visit the site to observe and verify existing drainage features, flow patterns, topography, stormwater outfalls, and potential locations for BMPs. Off-site analyses will be conducted as required by applicable stormwater code.

10.2. Predesign Analysis: There have been significant changes to the stormwater code since the preliminary design was completed. These changes will likely require a more complex design and documentation process than what is shown on the preliminary plans. The Consultant will document the differing requirements and needs as part of the practical design review process.

The Consultant will review the previously developed stormwater and drainage design documents prepared by others, if any. The Consultant will identify and document discrepancies between conditions and assumptions that were incorporated into the prior design work, and those of the current site conditions observed in the prior task. Where changed site conditions impact the ability to advance the prior stormwater design, such constraints will be documented in a memorandum for discussion and resolution with the City prior to initiating additional design work.

The Consultant will inform the City about alternative means of meeting stormwater requirements that may be beneficial to the project in terms of reduced costs, addressing permitting constraints, and/or improving the project delivery schedule. The Consultant will meet with the City to discuss the findings of the practical stormwater design review and confirm the project approach to drainage and stormwater to be used in finalizing the design; decisions made will be documented and incorporated into the project basis of design documents.

Analysis of Existing Conveyance System(s) & Outfall(s): The Consultant will review existing stormwater conveyance facilities within the project limits and identify all existing

discharge points which includes area take-offs; identify threshold discharge areas (TDAs) based on existing site conditions; and develop a summary of existing drainage patterns to receiving waters and identification of any downstream drainage issues for inclusion in the stormwater reporting.

10.3. Final Stormwater Analysis and Design

Design of New Conveyance System(s): The Consultant will prepare horizontal layout(s) of new drainage structures and conveyance pipes needed to drain the proposed trail surfaces and provide continuity of existing drainage systems.

Design of On-Site Stormwater Management BMPs: The Consultant will evaluate within each TDA the feasibility of On-Site Stormwater BMPs identified in the Drainage Design and Erosion Control Manual for Tumwater. The Consultant will perform sizing and hydraulic design computations for feasible BMPs and develop designs that will be incorporated into the PS&E for the project.

Drainage Control Plan (DCP) Reports: The Consultant will prepare Draft and Final DCP Reports to accompany the 60% and 90% Design Packages, respectively.

10.4. Stormwater Pollution Prevention Plan (SWPPP)

The Consultant will prepare a stormwater pollution prevention plan in support of project land use permits. The plan will be prepared to maximum extent feasible except for finalizing sections of the plan that require Contractor references and means and methods that will be finalized during construction.

10.5. NPDES Permit

The consultant will prepare and submit the NPDES permit through Department of Ecology after the 90% plans have bene completed and submitted to the City.

Task 10 Assumptions:

- *A Drainage Scoping will be required for this project and will be included as part of Task 9.2. This project is subject to effective July 1, 2022 City Drainage Design and Erosion Control Manual (DDECM) Requirements which is equivalent to the Washington State Department of Ecology Stormwater Management Manual for Western Washington (Ecology 2019).*
- *A Drainage Control Plan is required.*
- *This scope and fee are based on up to 9 stormwater Threshold Discharge Areas within the project limits.*
- *Site stormwater data collection will require two staff for up to 8 hrs total per staff, including travel time.*
- *Backwater analyses of stormwater conveyance features is not required.*
- *The proposed non-motorized trail surface is not considered a Pollution-Generating Impervious Surface (PGIS). As such, water quality treatment measures are not anticipated to be required.*
- *Dispersion will be used for flow control.*
- *PIT Tests (Pilot Infiltration Test) is not included in this scope. A preliminary grain size sieve analysis for preliminary infiltration rates will be provided by the consultant.*
- *The Consultant will prepare and submit SWPPP to maximum extent feasible during design in support of project and permitting requirement. The Contractor will be required to finalize preparation and submit final SWPPP report to the City prior to construction.*

Task 10 Deliverables:

- *Stormwater Predesign Analysis Memorandum (PDF) to be submitted with Task 13.*
- *Draft Drainage Control Plan Report (PDF) submitted with the 60% Design Package.*
- *Final Drainage Control Plan Report (PDF) submitted with the 90% Design Package.*

- *Stormwater Pollution Prevention Plan (PDF and word document)*

11. Task 11 – Public Outreach

The purpose of the Public Outreach task is to solicit feedback and confirmation of the existing design to-date with key stakeholders and any future proposed design(s) recommendations that result from Task 13 and the subconsultants preliminary analyses of the plans and existing conditions. This work also includes providing updates to the stakeholders and the public during the design and permitting process.

11.1. Public Outreach Materials: The Consultant shall prepare presentation and graphic support materials for public outreach and City/Stakeholder design meetings. This may include visual rendered graphics, mailers, and photo sim mockups for design elements under consideration, such as intersection control features, signage, urban design features, and other outreach materials to support solicitation of feedback from the stakeholders and the public. Other types of outreach materials may include content for City website updates and create and help launch online public surveys for a Public Open house. The Consultant is also available to prepare and provide graphic materials for outdoor display boards, and mailers to provide information on public engagement, upcoming presentations, and project milestone dates. A budget of approximately $17,000 or approximately 120 hours of material preparation has been added to the Contract. The Consultant will not start work on materials until specific request of graphics and effort have been requested by the Client. At that time, the Consultant will provide level of effort and hours required to prepare those materials.

11.2. Predesign Analysis Stakeholder Engagement: The Consultant shall attend and facilitate the following public outreach meetings below during the research and alternatives analysis stage at the request or recommendation of City. The goal of these early stakeholder meetings is to listen and solicit feedback on the 2018 design, determine if stakeholder needs have changed, determine appropriate project design elements for the trail corridor, and vet ideas to advance the project vision from the 2018 preliminary design.

- Four (4) in-person stakeholder meetings (location to be provided by the City). Assume up to three (3) Consultants at each meeting. Stakeholder(s) will be determined prior to collaboration, but may include:
    i. Tribes
    ii. Parks Dept.
    iii. Brewery Park Foundation
    iv. Craft District Developers
    v. Public forum whether held at City office, existing park, etc.

11.3. Final Design Stakeholder/Public Engagement: The Consultant shall attend and facilitate the following public outreach meetings below. The goal of these design meetings is to educate and vet ideas with stakeholders, determine appropriate project design elements for the trail corridor, and advance the project from 30% through Final Design.

- Two (2) in-person stakeholder meetings (location to be provided by the City). Assume up to three (3) Consultant members at each meeting. Stakeholder(s) will be determined prior to collaboration, but may include:
    i. Tribes
    ii. Parks Dept.
    iii. Brewery Park Foundation

iv. Craft District Developers
v. Public forum whether held at City office, existing park, etc.

- One (1) Council Meeting support which includes one representative from the consultant to speak and present prepared PPT of project status.

Task 11 Assumptions:

- *City shall facilitate space for in-person meetings and events. Location to be determined by the City.*
- *City shall provide coordination with stakeholders.*
- *City to manage and upload any presentation information onto City website, or other social media presentation platforms owned and operated by City and shall facilitate hosting and distribution of online surveys.*
- *Presentation to City Council will be after review and meetings with City staff and submittal milestones, to present design recommendations.*
- *The City shall lead efforts for mailing distribution. The consultant shall provide the materials in a format compatible with City programs.*
- *Outreach will take place concurrently with the other segment scope.*

Task 11 Deliverables:

- *Public Outreach Plan*
- *Meeting Agenda and minutes*
- *City Council Powerpoint Presentation*
- *Up to a combined three (3) visual rendered graphics and presentation materials for stakeholder and public outreach efforts.*
    - *Content for fact sheet and FAQ for City's social media & City website updates*
    - *36x48 outdoor display project boards*
    - *Photo sims*
- *Public comments and findings memo summary from each Public meeting Predesign Analysis and Final Design Public meeting, as necessary.*

12. Task 12 – Utility Coordination

This task includes coordination with both public and private utility providers to identify, evaluate, and resolve potential conflicts between existing infrastructure and the proposed trail design. Consultant will facilitate communication, verify utility data, support design resolution, and help ensure utility relocations are aligned with project delivery. The process is organized into the following key activities and includes coordination with the following utility providers:

Public Utility Providers:

- City of Tumwater – water, sewer, stormwater, and street lighting
- Tumwater Golf Course – irrigation system
- LOTT Clean Water Alliance – wastewater and reclaimed water systems
- WSDOT – fiber communications infrastructure

Private Utility Providers:

- Puget Sound Energy (PSE) – electric and natural gas
- Lumen (formerly CenturyLink) – telecommunications
- Comcast – cable and internet services
- AT&T – wireless and telecommunications

- Astound Broadband – internet and telecommunications services

In addition to the utility coordination described above, DEA will also provide task management, coordination, and contract administration under Task 12.1 for the following associated tasks:

- Task 2 – Topographic Survey and Right-of-Way Mapping
- Task 8 – Environmental Fieldwork and Mitigation
- Task 12 – Utility Coordination
- Task 15 – Utility Relocation Design of City-Owned Utilities

The scope of work is further detailed as follows.

12.1. Task Management

Coordinate the efforts of the design team and maintain consistent communication with the City. Oversee adherence to the project schedule and provide monthly invoicing along with budget status summaries. Ensure quality through ongoing QA/QC review by the Team's Quality Manager. Conduct regular meetings with the City to provide project updates and address key milestones or concerns.

12.1.1 Task Planning – prepare project management plan, prepare project schedule, and maintain schedule and budget.

12.1.2 Task Monitoring – prepare invoices and monitor project status (cost, scope and schedule).

12.1.3 Progress Meetings - attend up to ten (10) in-person meetings, and ten (10) video conference call meetings. It is assumed that the in-person meeting will be two (2) hours in duration and each video conference call meeting will be approximately one (1) hour long. Provide meeting agendas before and meeting summary after each meeting.

No. of Meetings	Meeting Name
1	Project Kick-off Meeting
1	Environmental Kickoff Meeting
2	Utility Coordination Meeting
1	Utility Relocation of City-Owned Utilities
1	Reclaimed Water Line Alignment Alternative Meeting
1	Pioneer Park Pump Station and Connections Meeting
1	60-Percent Design Milestone Review Meeting
1	Development Permit Application Submittal Meetings
1	90-Percent Design Milestone Review Meeting
10	Project Status and Design Coordination Video Conference Calls

12.1.4 Design Review Submittal – Prepare submittals to City for review and comments at project stages as indicated below.

12.1.5 Quality Assurance – Perform QA/QC review by experienced professional for deliverables.

12.1.6 Project Closeout – completion of project including files and records archiving and transfer and documentation of completed work.

12.2. Utility Provider Notification and Communication

Consultant will initiate coordination by notifying above listed utility providers of the project scope, anticipated impacts, and coordination expectations. Consultant will represent the City in all utility discussions and facilitate meetings with utility providers and City utility staff to review conflict areas and discuss mitigation responsibilities.

12.3. Utility Research and Identification

Consultant will contact each listed utility provider to request record drawings, base mapping, and as-built documentation. As part of this outreach, Consultant will provide formal notification of the project to each utility, including a project overview, anticipated construction timeline, potential impacts, and expectations for coordination. Consultant will also furnish any additional project-related information necessary to support the utility's internal coordination and response processes. All available utility data will be compiled into a consolidated base map for use in utility conflict analysis.

12.4. Identifying Potential Utility Conflicts

Review the compiled utility data in relation to the trail design to identify horizontal and vertical conflicts. Utilities located within or near the proposed alignment will be flagged for verification and further coordination.

12.5. Utility Conflict Coordination

Public Utilities (City of Tumwater, Tumwater Golf Course, LOTT, WSDOT Fiber): Coordinate with agency staff to evaluate conflicts and develop solutions including design modifications, protection-in-place, or relocation strategies.

Private Utilities (PSE, Lumen, Comcast, AT&T, Astound): Notify each utility of identified conflicts and request relocation or protection plans per City franchise agreements. Coordinate with providers to ensure proposed plans align with the trail design.

All conflict resolutions and responsibilities will be tracked and confirmed in meetings and documented in the utility coordination log.

12.6. Utility Relocation Design and Planning

Public Utilities: Prepare relocation designs for City-owned and LOTT-owned utilities and will integrate those designs into the final construction documents. All other utilities located on the Tumwater Golf Course—including irrigation, golf course drainage system, and any other golf course-related infrastructure—will be the responsibility of SCJ for relocation design and coordination.

Private Utilities: Franchise providers are responsible for their own relocation designs. Review submitted plans to verify compatibility with project design and schedule.

12.7. Permitting and Approvals

Identify all utility-related permitting needs and assist in securing approvals for public utility relocations. For private utilities, support providers by supplying necessary project data. Additionally:

- Coordinate with the City and utilities to determine right-of-way (ROW) or easement needs.
- Provide exhibits, legal descriptions, and mapping to support acquisition or access agreements outside of existing ROW per Task 2 above.

12.8. Document Management

Maintain a complete and up-to-date utility coordination log, including:

- Contact information for all listed utilities
- Meeting records and communications
- Conflict tracking
- Relocation responsibilities
- Timeline milestones
- Relocation plans and approvals

All documentation will be archived for design and construction reference.

Task 12 Assumptions:

- *The City will use its internal workforce to perform utility potholing for public utilities. The Consultant will not be responsible for conducting any utility potholing work.*
- *The Consultant will reference the locations of existing utilities as shown on available record drawings and identified in the base mapping included in the plans.*
- *Only minor relocations and adjustments of franchise utilities are anticipated.*
- *The Consultant will provide relocation designs for City-owned utilities as outlined in Task 17. Other utility providers will address their own conflicts.*
- *Construction of new franchise utility systems, aerial undergrounding, and joint utility trenches are not included in this contract.*
- *City will coordinate with Franchise Utility providers to secure any required franchise agreements.*

Task 12 Deliverables:

- *Utility Coordination Kickoff Memo*
- *Utility Stakeholder Notification Package*
- *Utility Provider meeting minutes*
- *Utility Conflict Matrix (Updated at Milestones)*
- *Consolidated Utility Base Map (Draft and Final)*
- *Utility Relocation Review Summary*
- *ROW, Easement, Permitting Support Package*
- *Final Utility Coordination Summary Report*

13. Task 13 – 60% Design

13.1. Data Collection and Preliminary Site Investigation: The Consultant will visit the site to observe and verify existing civil, urban design, and landscape features and document changes in existing site features between 2018 and present.

13.2. Civil Predesign Analysis: The Consultant shall review the existing trail alignment, profile, cross section, design elements, civil details, and design documents prepared by others. Where changed site conditions or new design criteria will result in revisions or alterations to the original basis of design, the Consultant will document these issues in a design memorandum for discussion and resolution with the City prior to initiating 30%

design work.

The Consultant team will use the preliminary layout. This scope and fee has assumed 200 lf of alignment revisions if necessary to minimize geotechnical, hydrologic, and permitting impacts. The revised alignment will be developed in collaboration with the City and focus on locations where changes would be beneficial to the project in terms of reduced costs, addressing permitting constraint, improving the project delivery schedule, and/or meeting the changing design criteria of the project since the 2018 design.

13.3. The Consultant shall compile the existing 2018 CAD drawings and files prepared by others including proposed alignment, proposed planimetrics (i.e. proposed polylines, symbols, hatching), and drawing details into Civil 3D.

13.4. Prepare Preliminary Trail layout for the Palermo Segment.

13.5. The Consultant shall use the preliminary plans that were already been completed to prepare the 60% plans. . Vertical grading associated with intersections and curb ramps will be developed. Cut and fill embankment lines, or retaining walls where needed, will be shown. It is anticipated that the 60% plans will include the following:

- Cover Sheet (1 sheet)
- Legend and Abbreviations (1 sheet)
- Alignment Plan and Survey Control (6 sheets)
- Existing Condition Plans (6 sheets)
- Site Preparation and TESC Plans (6 sheets)
- Construction Staging and Access Plans (12 sheets)
- Trail Plans and Profiles (12 sheets)
- Trail Typical Cross Sections (3 sheets)
- Trail General Notes and Details (1 sheet)
- Bridge Plans (Prepared under separate task) (10 sheets)
- Retaining Wall & Railing Plans (8 sheets)
- Stormwater Conveyance and Relocation Plan and Profiles (6 sheets)
- Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task) (8 sheets)
- Urban Design Plans (6 sheets)
- Urban Trail Details (2018 Preliminary Design LOE - Kiosks, Trail Nodes, Wayfinding) (8 sheets)
- Irrigation Relocation Plan (6 sheets)
- Landscape and Restoration Plans (6 sheets)
- Landscape and Restoration Plant Schedule (3 sheets)

13.6. The Consultant shall prepare a construction cost estimate based on the 60% plans.

13.7. The Consultant shall prepare special provisions for the 60% submittal based on the most current WSDOT Standard Specifications and GSPs as well as applicable AWPA GSPs. The 60% specifications will cover Divisions 2-9 Bid items measure and payment only.

13.8. The Consultant shall provide internal quality assurance/quality control (QA/QC) review of all deliverables prior to submittal.

Task 13 Assumptions:

- *No significant changes to the alignments or vertical profile will be required for the 60% design.*

- *The City will provide boilerplate specifications and GSPs or a sample specifications document as a basis for the project specifications.*

Task 13 Deliverables:
- *60% Plans (Electronic PDF)*
- *60% Construction Cost Estimate (Electronic PDF)*
- *60% Special Provisions (Div 2-9 Bid Items)*

14. Task 14 – Final Design

14.1. The Consultant shall incorporate City and stakeholder comments received during the 60% plan review. It is anticipated that the 90% plans will include the following:

- Cover Sheet (1 sheet)
- Legend and Abbreviations (1 sheet)
- Alignment Plan and Survey Control (6 sheets)
- Existing Condition Plans (6 sheets)
- Site Preparation and TESC Plans (6 sheets)
- Construction Staging and Access Plans (12 sheets)
- Trail Plans and Profiles (12 sheets)
- Trail Typical Cross Sections (3 sheets)
- Trail General Notes and Details (1 sheet)
- Bridge Plans (Prepared under separate task) (10 sheets)
- Retaining Wall & Railing Plans (8 sheets)
- Stormwater Conveyance and Relocation Plan and Profiles (6 sheets)
- Stormwater Details (2 sheets)
- Utility Relocation Plan (Wet and Dry Utilities) (Prepared under separate task) (5 sheets)
- Utility Details (Prepared under separate task) (3 sheets)
- Urban Design Plans (6 sheets)
- Urban Trail Details (2018 Preliminary Design LOE - Kiosks, Trail Nodes, Wayfinding) (8 sheets)
- Irrigation Relocation Plan & Details (10 sheets)
- Landscape and Restoration Plans (6 sheets)
- Landscape and Restoration Plant Schedule (3 sheets)
- Traffic Control Plans (Local funding layout approval) – (5 sheets)

14.2. The Consultant shall prepare a construction cost estimate based on the 90% plans.

14.3. The 90% specifications will include Divisions 1-9. The Consultant shall update the 60% special provisions based on review comments from the City. The most current WSDOT Standard Specifications and GSPs will be included as well as the applicable AWPA GSPs.

14.4. The Consultant shall incorporate City and stakeholder comments received during the 90% plan review. It is anticipated that the 100% plans will include the same sheet count as the 90% plans.

14.5. The Consultant shall prepare a construction cost estimate based on the 100% Draft Bid plans.

14.6. The Consultant shall update the 90% contract specifications for the 100% (Draft Bid) submittal based on the most current WSDOT Standard Specifications and City GSPs and

comments provided by the City. The Consultant shall prepare the Bid item proposal sheets following City preferred layout for the Contract front end documentation.

14.7. The Consultant shall provide internal quality assurance/quality control (QA/QC) review of all deliverables prior to submittal.

14.8. The Consultant shall prepare final supporting documentation needed for the City Planning Dept land use Permits.

14.9. The Consultant will address comments from City and prepare complete Bid Documents (Plans, Specifications, and Construction Cost Estimate) stamped and signed by a licensed Professional Engineer, for advertisement.

Task 14 Assumptions:

- *No significant changes to the alignments or vertical profile will be required for the 90% design.*
- *The City will provide a contract documents boiler plate or sample specifications (in MS Word) if contract documents are to be included in the 90% Specifications.*
- *The Consultant shall prepare and complete the 100% PS&E submittal for City approval at direction of City after the environmental permitting documents have been approved.*
- *The City will provide the front end contract documentation for incorporation into the contract specifications and bid package.*

Task 14 Deliverables:

- *90% Plans (Electronic PDF)*
- *90% Construction Cost Estimate (Electronic PDF)*
- *90% Special Provisions (Div 1-9)*
- *100% Plans (Electronic PDF)*
- *100% Construction Cost Estimate (Electronic PDF)*
- *100% Specifications (Electronic PDF)*
- *Bid Document Plans (Electronic PDF)*
- *Bid Document Construction Cost Estimate (Electronic PDF)*
- *Bid Document Specifications (Electronic PDF)*

15. Task 15 – Utility Design (DEA)

This task includes the identification, evaluation, and design of relocations for City-owned utilities impacted by the proposed trail design. The Consultant will develop relocation plans to accommodate utility conflicts, address shallow bedrock constraints, coordinate with retaining wall design, and maintain uninterrupted service through construction sequencing. Work includes relocations for two 16-inch sanitary sewer force mains, and reclaimed water air/vacuum release valves.

Scope of Utility Relocation Work

- Two 16-inch Sanitary Sewer Force Mains
  - STA 2+50 to STA 6+50 (Segment A2)
  - STA 8+20 to STA 8+65 (Segment A2)
- Reclaimed Water Infrastructure – Air/Vacuum Release Valves and Vaults
  - Near STA 11+75 (Segment B)
  - Near STA 14+75 (Segment B)

15.1. Civil Predesign Analysis:

Before initiating utility relocation design, the Consultant will conduct a civil predesign evaluation of the proposed trail alignment and related infrastructure components to identify areas requiring updates due to changed site conditions, revised criteria, or new project goals.

Activities include:

- Review of the proposed trail alignment, vertical profile, typical sections, civil details, and supporting design documentation prepared by others.
- Identification of discrepancies, outdated standards, or constructability challenges that may affect utility relocation or require revision to the original basis of design.
- Preparation of a design memorandum summarizing proposed changes and recommendations for discussion and resolution with the City prior to starting the 30% utility relocation design.

Alternative Alignment Development:

- Review the utility conflicts of up to two (2) horizontal trail corridor alignment alternatives in addition to the proposed alignment.
- For each alternative alignment, develop an associated vertical profile of the utilities along the trail.
- Present alignment and profile alternatives to the City for review and input. The City will select the preferred alignment and profile (if applicable) to be advanced into 30% design.

15.2. 30% Design:

The Consultant shall begin the design phase by compiling and reviewing all available utility records and conducting field verification of City-owned utilities. The Consultant will confirm existing and proposed alignments and incorporate verified utility data into project base mapping.

As part of the 30% design development, the Consultant shall provide supplemental quantities based on minimal modifications to the preferred alignment selected by the City. These quantities will reflect anticipated construction elements associated with utility relocations and adjacent civil features. The 30% plans will emphasize:

- Proposed horizontal trail alignment and locations of improvements
- Approximate heights and locations of retaining walls
- General layout of elevated structures
- Limits of disturbance and restoration
- Basic construction notes and standard details
- A preliminary vertical trail profile and typical trail cross sections

It is anticipated that the supplemental quantities for the 30% plans will include the following (approximate sheet count provided; integration with SCJ plan set as applicable):

- ❑ Cover Sheet (integration with SCJ plan set)
- ❑ Legend and Abbreviations (integration with SCJ plan set)
- ❑ Sheet Index, Alignment Plan, and Survey Control (integration with SCJ plan set)
- ❑ Site Preparation and TESC Plans (integration with SCJ plan set)
- ❑ Utility Relocation Plans (Preliminary Identification Only) 5 pages

15.3. 30% Quantity Takeoff and OPCC

The Consultant shall provide supplemental quantities for the 30% design level cost estimate prepared in Task 13.

15.4. 60% Design:

At the 60% design stage, the Consultant shall refine utility relocation plans based on City's feedback received during the 30% submittal review. The Consultant will finalize utility conflict resolutions and further develop design elements to support integration with the evolving trail, retaining wall, and civil grading plans.

Key design development activities will include:

- Incorporation of City comments
- Finalization of alignment shifts and vertical adjustments
- Bracing and structural support design for utilities beneath proposed retaining walls such as utility sleeves (in coordination with the geotechnical engineer)
- Layout and sizing of utility sleeves for trail crossings and wall penetrations
- Coordination with SCJ to ensure consistency across the plan set

It is anticipated that the supplemental quantities for the 60% plans will include the following (approximate sheet count provided; integration with SCJ plan set as applicable):

- ❑ Cover Sheet (integration with SCJ plan set)
- ❑ Legend and Abbreviations (integration with SCJ plan set)
- ❑ Sheet Index, Alignment Plan, and Survey Control (integration with SCJ plan set)
- ❑ Site Preparation and TESC Plans (integration with SCJ plan set)
- ❑ Construction Staging and Access Plans (integration with SCJ plan set)
- ❑ Utility Relocation Plans and Profiles (Wet and Dry Utilities) and Details 8 pages

15.5. 60% Quantity Takeoff and OPCC

The Consultant shall provide supplemental quantities for the construction cost estimate based on the 60% plans prepared in Task 14.

15.6. 60% Technical Specifications

The Consultant shall provide supplemental special provisions for the 60% submittal prepared in Task 14. The 60% specifications will cover Divisions 2-9 Bid items measure and payment only.

15.7. 90% Design:

The Consultant shall incorporate City's comments received during the 60% plan review. It is anticipated that the supplemental quantities for the 90% plans will include the following (approximate sheet count provided; integration with SCJ plan set as applicable):

- ❑ Cover Sheet (integration with SCJ plan set)
- ❑ Legend and Abbreviations (integration with SCJ plan set)
- ❑ Sheet Index, Alignment Plan, and Survey Control (integration with SCJ plan set)
- ❑ Site Preparation and TESC Plans (integration with SCJ plan set)

- ❑ Construction Staging and Access Plans (integration with SCJ plan set)
- ❑ Utility Relocation Plans and Profiles (Wet and Dry Utilities) 5 pages
- ❑ Utility Details 3 pages

15.8. 90% Quantity Takeoff and OPCC

The Consultant shall provide supplemental quantities for the construction cost estimate based on the 90% plans prepared in Task 15.

15.9. 90% Technical Specifications

The 90% specifications will include Divisions 1-9. the Consultant shall update the supplemental 60% special provisions based on review comments from the City.

15.10. 90% Review Comments and Responses

The Consultant shall incorporate City and stakeholder comments received during the 90% plan review. It is anticipated that the supplemental quantities for the 100% plans will include the same sheet count as the 90% plans.

15.11. Final Engineer's Estimate

The Consultant shall provide supplemental quantities for the construction cost estimate based on the 100% Draft Bid plans prepared in Task 15.

15.12. Final Technical Specifications

The Consultant shall update the supplemental 90% contract specifications for the 100% (Draft Bid) submittal based on the most current WSDOT Standard Specifications and City GSPs and comments provided by the City. The Consultant shall prepare the Bid item proposal sheets following City preferred layout for the Contract front end documentation.

15.13. Permitting Support

The Consultant shall prepare final supporting documentation needed for the City Planning Dept land use Permits.

15.14. Final PS&E – Bid Ready Package

The Consultant will address comments from City and prepare complete Bid Documents (Plans, Specifications, and Construction Cost Estimate) stamped and signed by a licensed Professional Engineer, for advertisement.

15.15. Bid Support

The Consultant shall provide bid assistance including:

- Prepare addenda as requested by the City. It is assumed that two (2) addenda will be prepared.
- Respond to bidder questions relayed through the City.

Task 17 Assumptions:

- *The 30% alignment, vertical profiles and other design elements will match closely with the provided alignment, vertical design, and design elements of the 2018 preliminary design except as required to meet current design criteria.*
- *Significant changes to the existing design may require an amendment to the scope before*

the 30% design begins.

- *The approved 30% layout design will become the basis for subsequent plans, specifications, and estimates, as well as the preliminary environmental documentation.*
- *No significant changes to the alignments or vertical profile will be required for the 60% design.*
- *The City will provide boilerplate specifications and GSPs or a sample specifications document as a basis for the project specifications.*
- *No significant changes to the alignments or vertical profile will be required for the 90% design.*
- *The City will provide a contract documents boiler plate or sample specifications (in MS Word) if contract documents are to be included in the 90% Specifications.*
- *The Consultant shall prepare and complete the 100% PS&E submittal for City approval at direction of City after the environmental permitting documents have been approved.*
- *The City will provide the front end contract documentation for incorporation into the contract specifications and bid package.*

Task 17 Deliverables:

- *30% Plans (PDF)*
- *60% Plans (Electronic PDF)*
- *90% Plans (Electronic PDF)*
- *100% Plans (Electronic PDF)*
- *Bid Document Plans (Electronic PDF)*

16. Task 16 – Bid Assistance

16.1. The Consultant shall provide bid assistance including:

- Prepare addenda as requested by the City. It is assumed that two (2) addenda will be prepared.
- Respond to bidder questions relayed through the City.

16.2. The Consultant will provide the City with an electronic copy of conformed set of Bid Plan sheets and specifications. The Consultant will incorporate any addendums that result to sheet or specification revisions. This supports the project to start construction with clean sheet and specification documents without any revision clouds may result from addendums and/or bidder questions that result in changes to the bid set.

Task 18 Assumptions:

- *The City shall prepare coordinate AD date and submit documents to BXWA and Newspapers, conduct bid opening, complete reference checks, compile bid tabulations, and work with WSDOT, grant lead agency, for construction obligation and award to Contractor.*

Task 18 Deliverables:

- *Responses for 2 rounds of Contractor questions during bidding and associated addendums as required (assumed 2 addenda)*
- *Conformed Bid Document Plans and Specifications (Electronic PDF)*

F. Management Reserve

Included in this Contract's Management Reserve includes, but is not limited to:

- Modified or additional design elements incorporated into the project after the predesign analysis and initial stakeholder outreach efforts.
- Right-of-way and temporary construction easement services.

- Sewer, water, joint utility trench design services.
- Illumination and/or traffic signal modification design services.
- Supplemental survey and base mapping not included in Task 2.
- Grant funding assistance.
- Construction services, such as design support during construction, construction management, inspection, construction surveying and staking, record drawings, or as-built preparation

At the time these services are required, the Consultant will provide a detailed scope of work and an estimate of cost. The above activities will require written authorization from City to access management reserve funds. The Consultant shall not proceed with additional work until the City has authorized the work and issued a notice to proceed.

Additional Services

The City of Tumwater may require other services of the Consultant. These services could include additional design, right of way, utility potholing, environmental documentation, geotechnical exploration, or other work tasks not included in the scope of work. At the time these services are required, the Consultant will provide the City with a detailed scope of work and an hour and fee estimate. These services will be authorized under a future contract supplement, if necessary. The Consultant will not proceed with the work until the City has authorized the work and issued a Notice to Proceed.

David Evans and Associates, Inc.

Project Fee Estimate
Deschutes Valley Trail (Segments A2, B, D, Palermo Spur)
City of Tumwater

Project Number **TBD**
Date **8/29/2025**
Prepared By **NDV/RCLA**

Estimated DEA Labor - Civil Engineering, Surveying and Environmental Services

Personnel Positions and Approximate Hourly Billing Rates

Task/Subtask (1)			Project Manager	QAQC	Senior Project Engineer	Project Engineer	Designer	CAD/GIS Technician	Survey Manager	Project Surveyor IV	Project Surveyor II	Office Survey Technician VI	Office Survey Technician V	Two Person Survey Crew	Survey Project Coordinator	Environmental Manager	Environmental Scientist IV	Environmental Scientist III	Landscape Architect	Landscape Designer	GIS Analyst IV	Project Accountant IV	Project Accountant II	Project Coordinator II	DEA Labor: Total Hours	DEA Labor: Total Estimated Fee	**Total - w/ Expenses and Subs.**
		Fully Burdened Rate	$235.03	$275.97	$235.03	$180.44	$130.40	$165.28	$226.47	$208.58	$201.49	$167.34	$146.11	$258.80	$134.28	$221.38	$159.21	$133.43	$218.35	$139.50	$166.79	$157.70	$105.78	$121.30			
2		**Topographic Survey and Right of Way Mapping Mapping**																							**368**	**$79,599**	**$79,848**
	2.1	Survey Update only to scoped items	1	2					40	14		48	40	124	10										279	$60,077	
	2.2	Additional Survey if needed	1							10		8	20	50											89	$19,522	
8		**Environmental Compliance and Permitting**																							**778**	**$128,782**	**$130,912**
	8.1	Data Collection and Preliminary Site Investigation	1													8	36	48			8				101	$15,477	
	8.2	Mazama Pocket Gopher (MPG) Screening Survey	1													22		20							43	$7,774	
	8.3	Environmental Meetings and Coordination	1													20		20							41	$7,331	
	8.4	Criitical Area, Habitat Management Report and Mitigation Plan	1	1												4	80	24			8			8	126	$19,641	
	8.5	Mitigation Feasibility Assessment	1	1												8	60	32	4	12	4			2	124	$19,562	
	8.6	Mitigation Design	1	1												12	4		125	200					343	$58,998	
12		**Utility Coordination**																							**256**	**$52,714**	**$53,073**
	12.1	Task Management	100	4																		10	16	20	150	$30,302	
	12.2	Utility Provider Notification and Communication	1		8																				9	$2,115	
	12.3	Utility Research and Identification		1	16																				17	$4,036	
	12.4	Identifying Potential Utility Conflicts		1	8																				9	$2,156	
	12.5	Utility Conflict Coordination	1		4																				5	$1,175	
	12.6	Utility Relocation Design and Planning	1	2	8	20		20																	51	$9,581	
	12.7	Permitting and Approvals	1		4																				5	$1,175	
	12.8	Document Management	1	1	4	4																			10	$2,173	
17		**Utility Design**																							**436**	**$77,738**	**$77,850**
	17.1	60% Design	4	2	20	40	40	80																	186	$31,848	
	17.2	60% Quantity Takeoff and OPCC	1	1	2	4	4																		12	$2,224	
	17.3	60% Technical Specifications	1	1	4	16																			22	$4,338	
	17.4	90% Design	4	2	10	30	30	40																	116	$19,779	
	17.5	90% Quantity Takeoff and OPCC	1	1	2	4	4																		12	$2,224	
	17.6	90% Technical Specifications	2	1	4	8																			15	$3,130	
	17.7	90% Review Comments and Responses	2	2	4	8		20																	36	$6,711	
	17.8	Final Engineer's Estimate	1		1	2																			4	$831	
	17.9	Final Technical Specifications	1		2	2																			5	$1,066	
	17.10	Permitting Support	1		2	2																			5	$1,066	
	17.11	Final PS&E - Bid Ready Package	2		2	2		4																	10	$1,962	
	17.12	Bid Support	1		4	4		4																	13	$2,558	

Task/Subtask (1)	Personnel Positions and Approximate Hourly Billing Rates																					DEA Labor		Total - w/ Expenses and Subs.
	Project Manager	QAQC	Senior Project Engineer	Project Engineer	Designer	CAD/GIS Technician	Survey Manager	Project Surveyor IV	Project Surveyor II	Office Survey Technician VI	Office Survey Technician V	Two Person Survey Crew	Survey Project Coordinator	Environmental Manager	Environmental Scientist IV	Environmental Scientist III	Landscape Architect	Landscape Designer	GIS Analyst IV	Project Accountant IV	Project Accountant II	Project Coordinator II	Total Hours	Total Estimated Fee	
Fully Burdened Rate	$235.03	$275.97	$235.03	$180.44	$130.40	$165.28	$226.47	$208.58	$201.49	$167.34	$146.11	$258.80	$134.28	$221.38	$159.21	$133.43	$218.35	$139.50	$166.79	$157.70	$105.78	$121.30			
17.13 Unanticipated Work																							0	$0	
Total	**134**	**24**	**109**	**146**	**78**	**168**	**40**	**24**	**0**	**56**	**60**	**174**	**10**	**74**	**180**	**144**	**129**	**212**	**20**	**10**	**16**	**30**	**1838**	**$338,833**	**$341,684**

Estimated Direct Expenses	
Mileage & Other Expenses	$2,850
Subconsultants	$0
Total Expenses	**$2,850**

Project Fee Estimate Summary and Total	
Total Estimated Labor	$338,833
Total Estimated Expenses	$2,850
Total Fee Estimate	**$341,684**

Notes and Assumptions:

(1) See detailed Scope of Work dated 8/29/2025.

(2) All hours and expenses are estimated, and may be increased or decreased within the total budget limit at the discretion of DEA's project manager. The DEA project manager may transfer budget from estimated expenses to labor and vice versa, as the project manager may determine as appropriate. Work will be billed on a time and expense basis, subject to the limit of the not-to-exceed Total Fee Estimate value.

(3) Client shall be responsible for direct payment of all permit, agency review, advertisement, service or other project expenses not expressly included in the Project Fee Estimate and/or Scope of Work.

CONSULTANT FEE COMPUTATION WORKSHEET

Project Name:	*Deschutes Valley Trail (Segments A2, B, D, Palermo Spur)*
Project Number:	
Consultant:	*David Evans and Associates, Inc.*
Estimated Design Fee:	*$341,684*
Prepared By:	*NDV/RCLA*

Fee Computation

Factor	***Rate***		***Weight***	***Value***	
Degree of Risk	*0.26*	*X*	*25*	*6.50*	
Relative Difficulty of Work	*0.30*	*X*	*20*	*6.00*	
Size of Job	*0.26*	*X*	*15*	*3.90*	
Period of Performance	*0.32*	*X*	*15*	*4.80*	
Assistance by the Agency	*0.32*	*X*	*15*	*4.80*	
Negotiated Fee (% of DSC)			***100***	***26.00***	***%***

Note: See Instructions for factor descriptions and rate guidelines

Multiplier Computation

Component	***Multiplier***
Labor (DSC)	*1.00*
Overhead (OH)	*1.7726*
Fee	*0.26*
Total Multiplier (DSC+OH+Fee)	***3.032600***

Exhibit D

Prime Consultant Cost Computations

Project Name: Deschutes Valley Trail (Segments A2, B, D, Palermo Spur)
Project Number: TBD
Consultant: David Evans and Associates, Inc.

NEGOTIATED HOURLY RATES

Name	Classification	Survey U Hours	DSC	Overhead 177.26%	Profit 26%	Total Hourly Rate	Total
Tucker Collins	Project Engineer	146	$59.50	$105.47	$15.47	$180.44	$26,344
William (Billy) Gibbs	Designer	78	$43.00	$76.22	$11.18	$130.40	$10,171
Josh Korakis	CAD/GIS Technician	168	$54.50	$96.61	$14.17	$165.28	$27,766
Ken McAfee	Survey Manager	40	$74.68	$132.38	$19.42	$226.47	$9,059
Rynea Edwards	Project Surveyor IV	24	$68.78	$121.92	$17.88	$208.58	$5,006
Adam Lawson	Project Surveyor II		$66.44	$117.77	$17.27	$201.49	
Bobby Johnson	Office Survey Technician VI	56	$55.18	$97.81	$14.35	$167.34	$9,371
Jay Dunn	Office Survey Technician V	60	$48.18	$85.40	$12.53	$146.11	$8,767
Survey Crew - DVT	Two Person Survey Crew	174	$85.34	$151.27	$22.19	$258.80	$45,032
Diana Gramling	Survey Project Coordinator	10	$44.28	$78.49	$11.51	$134.28	$1,343
Gray Rand	Environmental Manager	74	$73.00	$129.40	$18.98	$221.38	$16,382
Rick Pratt	Environmental Scientist IV	180	$52.50	$93.06	$13.65	$159.21	$28,658
MaKenna Lindberg	Environmental Scientist III	144	$44.00	$77.99	$11.44	$133.43	$19,215
Jonathan Gage	Landscape Architect	129	$72.00	$127.63	$18.72	$218.35	$28,167
Rachel Wells	Landscape Designer	212	$46.00	$81.54	$11.96	$139.50	$29,574
Sara Gilbert	GIS Analyst IV	20	$55.00	$97.49	$14.30	$166.79	$3,336
Vickie Elwell	Project Accountant IV	10	$52.00	$92.18	$13.52	$157.70	$1,577
Tiffany Lynch	Project Accountant II	16	$34.88	$61.83	$9.07	$105.78	$1,692
Olivia Werdal	Project Coordinator II	30	$40.00	$70.90	$10.40	$121.30	$3,639
Subtotal:		**1,838**					**$338,834**

REIMBURSABLES

Mileage	$1,420
Title Report	
Lodging and Meals	$1,300
Markup on Expenses - 10%	$130
Subtotal:	**$2,850**

SUBCONSULTANT COSTS

APS - Utility Pothole	
APS - Utility Locate	
Markup on Subconsultants - 10%	

TOTAL **$341,684**

Northwest Hydraulic Consultants Inc.
12787 Gateway Drive S.
Seattle, WA 98168
Tel. (206) 241-6000
Fax (206) 439-2420

Estimate of Professional Services

Prepared for:	SCJ Alliance
Project:	Deschutes Valley Trail (Seg. A2,B,D,&P.Spur)
Date:	08/11/2025
Project #:	P02010047
Prepared By:	P. Brooks

Labor Detail

	TASK DESCRIPTION	Staff Hours: Principal	Sr. Eng. 1	Eng./Sci. 1	Jr. Engineer/ Scientist	GIS Analyst 1	Sr. Tech. Ed./Sr. Admin.	Totals
5	**Hydraulics and Hydrology Services**							
5.1	Project Management	6	19				2	$2,200
5.2	Preliminary Site Investigation	1	2	20	20	4		$2,552
5.3	Hydrologic Analysis		1		2			$169
5.4	Hydraulic Analysis	6	20		84			$5,944
5.5	Scour Analysis	11	38	8	100	0	3	$9,207
5.6	Permit Support	2	6		16	16		$2,272
	Total Hours	26	86	28	222	20	5	
	Direct Rate ($/hr)	99.75	78.75	58.80	44.89	55.13	52.50	
							SUBTOTAL(LABOR)	$22,343
							OVERHEAD AT 198.39%	$44,326
							FEE AT 26.0%	$5,809
							TOTAL (COST PLUE FIXED FEE)	$72,479

Direct Expense Detail

	Units	Rate	Cost
Mileage	120	$0.700	$84
TOTAL DIRECT EXPENSES			$84

Cost Summary

Total Labor		$72,479
Total Direct Expenses		$84
	TOTAL COST	$72,563

Table 1
Budget Breakdown
Geotechnical Services
DVT Segments A2, B, D, and Palermo Spur
Tumwater, Washington

Scope Items	Principal Engineer	Senior Engineer	Technician	Assistant Project Manager	Totals	Total Labor Costs
LABOR						
Geotechnical Engineering						
Project Management and Administration	12	24		12	48	$7,948
Fieldwork Preparation, Fieldwork, and Groundwater Monitoring	8	120	56		184	$25,886
Geotechnical Analysis	20	160			180	$30,514
Draft and Final Report, Plan Review, Data Report	20	40	12	8	80	$12,630
Contingency - Additional Drilling Fieldwork/PM/Engineering/Reporting	40	60	20	4	124	$20,072
					0	
Total Base Hours	**60**	**344**	**68**	**20**	**492**	**$76,978**
Total Contingency Hours	**40**	**60**	**20**	**4**	**124**	**$20,072**
Rate by Position	$201.06	$165.58	$78.72	$130.08		
Total - Base Labor Cost	$12,064	$56,960	$5,353	$2,602	**$76,978**	
Total - Contingency Labor Cost	$8,042	$9,935	$1,574	$520	**$20,072**	
SUBCONTRACTED SERVICES AND EXPENSES						
Drilling Subcontractor					$39,629	
Private Utility Locator					$1,117	
Traffic Control Services					$1,827	
Excavating Subcontractor					$2,538	
Pressure Transducer Rental					$3,600	
Geophysics Subconsultant					$3,045	
Geotechnical Laboratory Testing					$5,400	
Contingency - Additional Drilling and Lab Testing					$15,634	
Contingency - Environmental Sampling and Testing for Palermo Spur Borings					$5,000	
Contingency - Foul Weather Drill Acess					$4,800	
Total - Base Direct Costs					**$57,155**	
Total - Contingency Direct Costs					**$25,434**	
					TOTAL	
Base Total (without Contingencies)					**$134,132**	
Total with Contingency Costs					**$179,638**	

Note: Subcontractor/Subconsultant costs include a 1.5 percent markup.

SARGENT

Deschutes Valley Trail - Segment A2, B, D, Palermo

Structural Engineering

	Principal	Senior Project Engineer	Project Engineer	Design Engineer	Task Cost
Direct Salary:	$78.00	$65.00	$50.00	$40.00	
Indirect Cost Rate (197.81%):	$154.29	$128.58	$98.91	$79.12	
Profit (26.00%):	$20.28	$16.90	$13.00	$10.40	
Total Rate:	$252.57	$210.48	$161.91	$129.52	
Task 4 - Structural Engineering					
4.1 Project Admin and Management	24		16		$8,652
4.2 Public Outreach	4		4		$1,658
4.3 Review Existing Data	16		16		$6,632
4.4 Conceptual Design Retaining Walls	0		0		$0
4.5 Conceptual Design Bridges	24		48		$13,833
4.6 Final Design Retaining Walls					$0
60% Submittal	16		24		$7,927
90% Submittal	12		24		$6,917
Final Submittal	12		24		$6,917
4.7 Final Design Bridges					$0
30% Submittal	40		80		$23,055
60% Submittal	64		24		$20,050
90% Submittal	40		80		$23,055
Final Submittal	24		48		$13,833
4.8 Final Design Trail Features					$0
60% Submittal	24		40		$12,538
90% Submittal	16		32		$9,222
Final Submittal	16		32		$9,222
4.9 Bid Assistance	12		8		$4,326
Subtotal	320	0	484	0	**$159,185**

Direct Costs		
Mileage	$0.00	
Subconsultants	$0.00	
Total Direct Costs		**$0**
Total Structural Services		**$159,185**

SWCA
ENVIRONMENTAL CONSULTANTS

1800 NW Upshur Street, Suite 100
Portland, Oregon 97209
Tel 503.224.0333 Fax 503.224.1851
www.swca.com

August 6, 2025

Patrick Holm
SCJ Alliance
1201 Third Ave, Suite 550
Seattle, WA 98101

Submitted via email: Patrick Holm patrick.holm@scjalliance.com

Re: Cultural Resources Services for the Tumwater Deschutes Valley Trail Project Segments A2, B, D, Palermo Spur, Thurston County, Washington

Dear Patrick Holm:

SWCA Environmental Consultants (SWCA) is pleased to submit this proposal to Patrick Holm for cultural resources services for the Tumwater Deschutes Vally Trail Project Segments A2, B, D, Palermo Spur. SWCA understands that the City of Tumwater (COT) proposes to complete the design and permitting for construction of a non-motorized trail with a paved surface and gravel shoulders providing access to an undeveloped City right-of-way. This work shall also include The Deschutes Valley Trail Reclaimed Water Extension system as part of the Lacey, Olympia, Tumwater, Tumwater (LOTT) partnership. Because the project is obtaining permitting through the US Army Corps of Engineers it is subject to review under Section 106 of the National Historic Preservation Act. Our proposal includes a scope of work that will provide cultural resources support for the design of Segments A2, B, D, and the Palermo Park Spur and assist US Army Corps of Engineers in meeting their NHPA Section 106 compliance requirements, including consultation support with the Washington State Historic Preservation Office and Tribes.

Thank you for providing us with the opportunity to work with you. If you have any questions or wish to discuss the proposal, please do not hesitate to reach out to me by telephone at (503) 224-4173 or by email at amanda.carroll@swca.com.

Sincerely,

Amanda J. Carroll

Amanda Carroll

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SCOPE OF WORK

The Tumwater Deschutes Valley Trail (DVT) Project Segments A2, B, D, and Palermo Spur ("Project") proposes to complete the design and permitting for construction of a non-motorized trail with a paved surface and gravel shoulders providing access to an undeveloped City right of way. The overall project starts at the recently completed DVT Segment A1 at the Brewery Park and extends over 2 miles southeast terminating at Pioneer Park. Segments A2, B, D, and Palermo Spur ("Project") will start at the Tumwater Brewery Park parking lot and terminate in Pioneer Park. The length along the segments are as follows: A2 equals 1,090 LF; B equals 2,220 LF; D equals 1,630 LF and the Palermo Spur equals 1,775. All segments will have a 10 ft wide asphalt surface and 1-to-2-foot gravel shoulders.

The purpose of this scope is to conduct cultural resources analyses needed to comply with Section 106 of the National Historic Preservation Act. The analyses will supplement and extend previous analyses completed by SWCA (Shantry and Piper 2012) and SWCA (Hannum and Shantry 2017).

This work shall also include The Deschutes Valley Trail Reclaimed Water Extension system as part of the Lacey, Olympia, Tumwater, Tumwater (LOTT) partnership. This extension system will be an 18" diameter reclaimed water main and will extend the portion that runs through Segment C starting at the Booster Station within the Valley Golf Course and runs to the Deschutes Valley Park Trail Spur. This main line is approximately 4,000 LF in length and shall parallel the trail alignment.

TASK 1: PROJECT MANAGEMENT, SECTION 106 REGULATORY ASSISTANCE AND CLIENT COORDINATION

The requirement for a permit from the US Army Corps of Engineers subjects the project to compliance with Section 106 of the National Historic Preservation Act. Under Section 106, USACE must consider the effects of the project on historic properties. The USACE follows the Appendix C process, meaning that it does not initiate Section 106 consultation prior to cultural resources studies. SWCA will prepare project introduction correspondence for the City to submit to SHPO and Affected Tribes (Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation) to advise them of the project and future Section 106 consultation under USACE. The correspondence will provide a project description, map of the proposed Area of Potential Effects (APE) for the project, and proposed methods for evaluating potential effects.

TASK 2: BACKGROUND RESEARCH

SWCA will conduct background research of the Segment A2, B, D, and Palermo Spur trail segments, with a main goal to identify the probability for buried archaeological sites to be present within the project area. Research will include a records check at the Department of Archaeology and Historic Preservation's (DAHP) WISAARD database to identify any archaeological sites or historic structures within the project area. Other sources may include available nearby geotechnical data, the University of Washington Libraries, and SWCA's internal library. SWCA previously conducted background research for other segments of the trail, which will form the basis for this work.

TASK 3: ARCHAEOLOGICAL SURVEY

SWCA will conduct archaeological surveys along Segments A2, B, D, and Palermo Spur. Prior to the survey, SWCA will request the completion of a One-Call utility locate in accordance with Washington State law. Archaeological survey shall consist of pedestrian reconnaissance ("surface survey") and excavation of up to 12 shovel probes at previously unprobed locations deemed to be "high probability" for buried archaeological resources by the consultant, based on its observations during the pedestrian reconnaissance. During pedestrian reconnaissance, SWCA will

assess the presence/absence of culturally modified trees (CMTs). Probes will be excavated using a round nosed shovel with spoils screened on to a tarp. Probes will measure 30-40 cm in diameter and extend to 1) 1.0 meter; 2) intact glacial deposits, or 3) until impassable conditions are encountered (whichever comes first). Artifacts (if encountered) will be documented in the field; surface artifacts will be left in place, excavated artifacts will be reburied in the shovel probe from which they originated. Probes will be backfilled upon completion. Up to two archaeological sites will be recorded on a DAHP Archaeological Site Form.

TASK 4. ARCHITECTURAL HISTORY ASSESSMENT

Tumwater Falls Park is older than 50 years and, therefore, meets the minimum age threshold for listing on the National Register of Historic Places and needs to be studied as part of this undertaking for compliance with Section 106 of the NHPA.

SUBTASK 4A. ARCHITECTURAL HISTORY BACKGROUND RESEARCH

SWCA Architectural Historians will conduct a mixture of in-person and digital research on the history of the region and the individual properties located in the APE, specifically those properties located within Tumwater Falls Park. The background research will include a search of online newspaper articles, archival documents, historical maps, photographs, building permits, and other relevant information available from local libraries, historical societies, and a variety of online repositories and databases.

SUBTASK 4B. ARCHITECTURAL SURVEY & DOCUMENTATION

SWCA will conduct an architectural history/built environment survey of the APE, focused on the historic- age properties present. SWCA staff will conduct a Historic Property Inventory (HPI) of the Tumwater Falls Park, document it on a SHPO HPI form, and provide a recommendation regarding its eligibility for listing in the National Register of Historic Places (NRHP), as well as an analysis of potential effects of the project to the park, including any impacts to its historic integrity. The documentation will be conducted and reviewed by our team of architectural historians who meet the Secretary of the Interior's Professional Qualifications Standards for Architectural History and History. All documentation will be prepared in accordance with guidance published by DAHP and the National Park Service.

TASK 5. REPORT

SWCA will prepare a Cultural Resources Report that will meet the reporting standard requirements of DAHP and the Secretary of the Interior and assist in meeting the requirements of the Section 106 review. The report will supplement and extend background research previously prepared by SWCA. In preparing the report, the consultant will review and incorporate, as needed, project designs, maps, descriptions, and existing and new geotechnical borings. The report will provide results of the archaeological survey and HPI, recommendations regarding the NRHP eligibility of cultural resources, and recommendations for any follow-on work. If approved by the city and the USACE, SWCA will submit the final Cultural Resources Report to WISSARD for DAHP review.

TASK 6. INADVERTENT DISCOVERY PLAN

SWCA will prepare an Archaeological Resources Inadvertent Discovery Plan (IDP) for use during project construction. The IDP will contain any special provisions required by USACE

DELIVERABLES

- Draft and final SHPO/Tribal letter and map.
- Draft and final archaeological site forms.
- Draft and final Historic Property Inventory form.

- Draft and final Cultural Resources Assessment Technical Report.
- Draft and final Archaeological Resources Inadvertent Discovery Plan.

COST ESTIMATE

SWCA proposes to complete the scope of work detailed above on a time-and-material, not-to-exceed total of $47,539.

TASK	NTE AMOUNT
TASK 1: PROJECT MANAGEMENT, SECTION 106 REGULATORY ASSISTANCE AND CLIENT COORDINATION	**$3,249**
TASK 2: BACKGROUND RESEARCH	**$3,912**
TASK 3: ARCHAEOLOGICAL SURVEY	**$8,445**
TASK 4: ARCHITECTURAL HISTORY ASSESSMENT	**$19,036**
TASK 5: REPORT	**$10,929**
TASK 6: INADVERTENT DISCOVERY PLAN	**$1,968**
Total	**$47,539**

ASSUMPTIONS

Our cost estimate is based on the following assumptions:

- Up to 12 shovel probes will be excavated. No subsurface site boundary delineation will be necessary.
- USACE will consult with SHPO, Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation.
- City will obtain/furnish rights-of-access.
- City will notify Squaxin Island Tribe, Cowlitz Indian Tribe, Nisqually Indian Tribe, and Confederated Tribes of the Chehalis Reservation of the survey and invite representatives to observe the work.
- Up to 2 archaeological sites will be encountered and recorded. CMTs may be recorded as an archaeological site.
- Golf Course will have been recorded and evaluated for NRHP under cultural resources assessment for Segment C.
- Up to one cultural resources technical report will be developed under this scope of work including both archaeological investigation results and architectural history assessment results.
- Up to one inadvertent discovery plan will be developed under this scope of work.
- Up to 1 HPI form will be prepared for Tumwater Falls Park.
- The HPI will be conducted at the Reconnaissance Level, as outlined by DAHP.

- The consultant will review existing and new geotechnical data for the project, but will not conduct archaeological monitoring during new geotechnical investigations.
- City will be allowed one round of review on all draft deliverables.
- Document revisions will require up to 4 hours of SWCA labor to address.
- No mitigation tasks are included in this scope.
- SWCA's ability to conduct fieldwork will be unimpeded by access restrictions (e.g., fences, locked gates, etc.), road construction, wildfires and air quality, landowner restrictions, COVID-related restrictions, or any other factor(s) outside of SWCA's control.
- No artifacts will be collected or curated. If necessary SWCA will collect and prepare artifacts for curation under a new scope of work and for an additional fee.

Standard Rate Schedule

SWCA

2025 LABOR CATEGORIES AND BILLING RATES

Professional Consulting Services

Cultural Resources
Environmental Resources
Paleontology
Scientific Resources
Planning Resources
Engineering and Special Services
Graphics/Media Production
GIS/CADD Resources
Technical Writing/Editing
Air Quality
Training/Facilitating

Subject Matter Expert IV	$293.00	Specialist VIII	$158.00
Subject Matter Expert III	$268.00	Specialist VII	$147.00
Subject Matter Expert II	$242.00	Specialist VI	$137.00
Subject Matter Expert I	$230.00	Specialist V	$123.00
Specialist XII	$226.00	Specialist IV	$114.00
Specialist XI	$207.00	Specialist III	$104.00
Specialist X	$189.00	Specialist II	$91.00
Specialist IX	$169.00	Specialist I	$77.00

Direct expenses are subject to a 15% administrative markup and subcontractor expenses are subject to a 20% administrative markup. These rates do not apply to depositions or testimonies at administrative hearings and trials. Such activities fall under our Expert Witness rates, which vary by state.

Overtime is invoiced at 1.2 times standard rates.
Per Diem is billed at the then-current GSA rate at time of billing.
Mileage is billed at the then-current IRS mileage rate at time of billing.

Project Budget Summary

Rate Schedule: **2025 Standard Rates**

Project Name:	Deschutes Segment A2,B,D, Palermo
Project No.:	[Enter Project Number Here]
Annual Rate Escalation:	0%
Project Start (est.):	
Project End (est.):	

Columns A-E are for internal reference and are outside of the print area for proposals.

	Totals	Phase 01
	Total All Phases	

LABOR

Office	Name	Project Role	Discipline Short	Level Short	Discipline	Level	Rate	Hours	Charge	% of Total Project	% of Labor Hrs	% of Lbr Charge	Hours (Phase 01)	Charge (Phase 01)
							$ -	-	$ -	0.0%	0.0%	0.0%	-	$ -
							$ -	-	$ -	0.0%	0.0%	0.0%	-	$ -
GEN	General Biller				Accounting - Billing		$ 104.00	-	$ -	0.0%	0.0%	0.0%	-	$ -
GEN	General Technical Editor				Technical Writer/Editor		$ 169.00	-	$ -	0.0%	0.0%	0.0%	-	$ -
POR	Carroll, Amanda		CR	S11	Cultural Resources	Specialist XI	$ 207.00	4.00	$ 828.00	1.7%	1.3%	1.8%	4.00	$ 828.00
POR	Markus, David		CR	S10	Cultural Resources	Specialist X	$ 189.00	4.00	$ 756.00	1.6%	1.3%	1.7%	4.00	$ 756.00
	Mulholland, Meghan		CR	S09	Cultural Resources	Specialist IX	$ 169.00	48.00	$ 8,112.00	17.1%	15.7%	17.9%	48.00	$ 8,112.00
POR	McIlhennymiller, Katie		CR	S05	Cultural Resources	Specialist V	$ 123.00	64.00	$ 7,872.00	16.6%	20.9%	17.4%	64.00	$ 7,872.00
POR	Butler, Caelie		CR	S06	Cultural Resources	Specialist VI	$ 137.00	28.00	$ 3,836.00	8.1%	9.2%	8.5%	28.00	$ 3,836.00
POR	Held, Rhiannon		TW	S07	Technical Writer/Editor	Specialist VII	$ 147.00	8.00	$ 1,176.00	2.5%	2.6%	2.6%	8.00	$ 1,176.00
POR	Chatfield, Catherine		GS	S08	GIS/CADD	Specialist VIII	$ 158.00	18.00	$ 2,844.00	6.0%	5.9%	6.3%	18.00	$ 2,844.00
POR	Self, Katie		AD	S03	Administration	Specialist III	$ 104.00	1.00	$ 104.00	0.2%	0.3%	0.2%	1.00	$ 104.00
POR	Vallejo, Ricardo		CR	S04	Cultural Resources	Specialist IV	$ 114.00	24.00	$ 2,736.00	5.8%	7.9%	6.0%	24.00	$ 2,736.00
	Cook, Deirdre		PC	S06	Project Controls	Specialist VI	$ 137.00	0.50	$ 68.50	0.1%	0.2%	0.2%	0.50	$ 68.50
SAC	Mark, Trevor		CR	S06	Cultural Resources	Specialist VI	$ 137.00	40.00	$ 5,480.00	11.5%	13.1%	12.1%	40.00	$ 5,480.00
SLC	Olson, Christina		CR	S09	Cultural Resources	Specialist IX	$ 169.00	-	$ -	0.0%	0.0%	0.0%	-	$ -
SAC	Herrick, Dan		CR	S12	Cultural Resources	Specialist XII	$ 226.00	6.00	$ 1,356.00	2.9%	2.0%	3.0%	6.00	$ 1,356.00
SAC	Demarais, LC		CR	S09	Cultural Resources	Specialist IX	$ 169.00	60.00	$ 10,140.00	21.3%	19.6%	22.4%	60.00	$ 10,140.00
					Labor Subtotal			305.50	$ 45,308.50	*95.3%*	100.0%		305.50	$ 45,308.50
					Communication Fee - % of Labor		*0%*		*$ -*	*0.0%*				*$ -*
					Labor Total			305.50	$ 45,308.50	95.3%			305.50	$ 45,308.50

TRAVEL EXPENSES

Description	Unit	Rate	# Units	Charge	% of Total Project	# Units (Phase 01)	Charge (Phase 01)
Car / Full Size Truck Rental Daily	*Per Day*	70.00	7.00	$ 490.00	1.0%	7.00	$ 490.00
Car / Full Size Truck Rental Weekly	*Per Week*	420.00	-	$ -	0.0%	-	$ -
Car / Full Size Truck Rental Monthly	*Monthly*	1,680.00	-	$ -	0.0%	-	$ -
4x4 Truck Daily	*Half Ton, Per Day*	75.00	-	$ -	0.0%	-	$ -
4x4 Truck Weekly	*Half Ton, Per Week*	450.00	-	$ -	0.0%	-	$ -
4x4 Truck Monthly	*Half Ton, Per Month*	1,800.00	-	$ -	0.0%	-	$ -
4x4 Truck Daily	*3/4 Ton, Per Day*	85.00	-	$ -	0.0%	-	$ -
4x4 Truck Weekly	*3/4 Ton, Per Week*	510.00	-	$ -	0.0%	-	$ -
4x4 Truck Monthly	*3/4 Ton, Per Month*	2,040.00	-	$ -	0.0%	-	$ -
4x4 Truck Daily	*Full Ton, Per Day*	95.00	-	$ -	0.0%	-	$ -
4x4 Truck Weekly	*Full Ton, Per Week*	570.00	-	$ -	0.0%	-	$ -
4x4 Truck Monthly	*Full Ton, Per Month*	2,280.00	-	$ -	0.0%	-	$ -
Lodging/Housing	*Per Day*	175.00	4.00	$ 700.00	1.5%	4.00	$ 700.00
Mileage	*Per Mile*	$ 0.700	-	$ -	0.0%	-	$ -
Airfare	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Rental Car Gasoline	*Rate / Unit or Lump Sum*	$ 3.20	80.00	$ 256.00	0.5%	80.00	$ 256.00
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Travel Expenses Subtotal				$ 1,446.00	3.0%		$ 1,446.00
Travel Expenses Markup		*15%*		*$ 216.90*	*0.5%*		$ 216.90
Per Diem	*per day*	$ 68.00	7.00	$ 476.00	1.0%	7.00	$ 476.00
Travel Expenses Total				$ 2,138.90	4.5%		$ 2,138.90

OTHER EXPENSES

Description	Unit	Rate	# Units	Charge	% of Total Project	# Units (Phase 01)	Charge (Phase 01)
Supplies	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Copies - B&W (in-house)	*Per Copy*	$ 0.10	-	$ -	0.0%	-	$ -
Copies - Color (in-house)	*Per Copy*	$ 1.00	-	$ -	0.0%	-	$ -
Graphic Plots	*Per Plot*	$ -	-	$ -	0.0%	-	$ -
Permits	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Postage	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Anemometer	*Per Day*	$ 3.00	-	$ -	0.0%	-	$ -
Curation	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Tablet + Geode	*Per Day*	$ 40.00	2.00	$ 80.00	0.2%	2.00	$ 80.00
Records Search	*Rate / Unit or Lump Sum*	$ 25.00	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Misc.	*Rate / Unit or Lump Sum*	$ -	-	$ -	0.0%	-	$ -
Other Expenses Subtotal				$ 80.00	0.2%		$ 80.00
Other Expenses Markup		*15%*		*$ 12.00*	*0.0%*		$ 12.00
Other Expenses Total				$ 92.00	0.2%		$ 92.00
TOTAL EXPENSES				$ 2,230.90	4.7%		$ 2,230.90
Project Phase Total				**$ 47,539.40**			**$ 47,539.40**

Note: Communication expense is not subject to 15% administrative fee.

TOTAL PROJECT	Charges
SWCA Labor Total	**$ 45,308.50**
Expenses Total	**$ 2,230.90**
Subcontractors Total	**$ -**
Total Project	**$ 47,539.40**
Tax Total	**$ -**
Total Including Taxes	**$ 47,539.40**