

**EXHIBIT A: SCOPE OF WORK  
WALLIS ENGINEERING**

**2019 OREGON CITY ROADWAY RECONSTRUCTION PROJECTS (CI 19-001)  
CITY OF OREGON CITY**

MARCH 2019  
WE#1476A

**BACKGROUND**

The City of Oregon City's (City) transportation system includes about 135 miles of City-owned surface streets of varying sizes and capacities requiring periodic maintenance to keep them operational. The City established a Pavement Maintenance Utility Fee (PMUF) in 2007 to address maintenance needs for City streets. A portion of the fees collected are allocated to the reconstruction and/or resurfacing of existing roadways identified by the City as needing rehabilitation.

**GENERAL SCOPE OF PROJECT**

This project includes the evaluation of existing pavement conditions and the preparation of contract documents to solicit bids for pavement rehabilitation and resurfacing in separate areas in Oregon City. Minor utility maintenance upgrades may also be completed as part of the project if found to be necessary in the specific project areas covered.

The City has identified several streets that are candidates to receive pavement rehabilitation this year. Wallis Engineering will evaluate all streets contained in the list, make preliminary recommendations for what streets to include in this contract, and design rehabilitation improvements to the streets approved by the City based on available budget. All street segments being considered lack pedestrian facilities and will not require pedestrian ramp reconstruction to meet the requirements of recent Department of Justice rulings. A list of streets being considered for rehabilitation are provided below:

Street	From	To	Length (ft)	Width (ft)
Linn Avenue	Pearl St.	Park/Glenwood Ct.	1,900	34
3 <sup>rd</sup> Avenue	Blanchard St.	Hedges St.	1,077	19
Ganong Street	3 <sup>rd</sup> Ave	4 <sup>th</sup> Ave	231	22
Jerome, Miller, Apperson	3 <sup>rd</sup> Ave	S. McLoughlin Blvd.	705	33/39/28
Joyce Court	Complete		481	78
Cherry Avenue	Ogden Dr.	McCarver Ave	2,573	32
Conifer Drive	Lafayette Ave	Madrona Dr.	650	33
Madrona Drive	Western Termini	Madrona Ct.	765	30
Hazelwood Dr	Barker Ave	Hartke Loop	2,165	33
Vine St	Hazelwood Dr	Telford	790	36
Total			9,489	

## CONTRACT DURATION

Contract term shall be from the date contract is fully executed until December 31, 2019

## SPECIFIC SCOPE OF WORK

<b>Task 1</b>	<b>Project Management and Administration</b>
<b>Task 2</b>	<b>Data Collection and Evaluation</b>
<b>Task 3</b>	<b>Preliminary Design</b>
<b>Task 4</b>	<b>Plans, Specifications and Estimate (PS&amp;E) Development</b>
<b>Task 5</b>	<b>Bidding Phase Services</b>
<b>Task 6</b>	<b>Construction Phase Services (<i>not included in this scope</i>)</b>

## SUBCONSULTANTS

<b>Subconsultant</b>	<b>Discipline</b>	<b>Task(s)</b>
Compass Land Surveyors	Surveying	Task 2
GeoDesign	Geotechnical Engineering	Task 3

## TASK 1 PROJECT MANAGEMENT AND ADMINISTRATION

**1.1. Define Project Objectives.** The project manager will define the project goals, locations, design criteria, and the project schedule. These items will be included in the Final scope of work.

**1.2. Project Management and Administration.** Provide management, coordination, and direction to the project design team to complete the project.

- 1.2.1. Prepare a project design schedule outlining design and deliverable milestones.
- 1.2.2. Prepare monthly status reports and schedule updates to be included with consultant invoices.
- 1.2.3. Coordinate project team meetings and prepare meeting agendas and meeting minutes. This task assumes the following meetings:
  - Preliminary Design Review Meeting. Meeting will focus on evaluating the anticipated construction cost of each segment and identifying what street to include in the construction contract.
  - 60% Design Review Meeting.
  - 90% Design Review Meeting (as necessary)

### **Assumptions:**

- Design/Bidding phase of the project is assumed to be April 2019 – July 2019.
- The City project manager will complete all stakeholder coordination, public involvement, and lead all necessary permitting efforts.

### **Deliverables:**

- Final Scope and Schedule.
- Monthly status reports and invoices.
- Meeting agendas and minutes.

## **TASK 2 DATA COLLECTION AND EVALUATION**

**2.1 Site Investigation and Data Collection.** Review as-built/record drawings, existing mapping, aerial photos and GIS provided by the City and private utility providers. Conduct site investigation of the project areas to verify mapping accuracy, examine the condition of catch basins and manholes and examine site drainage.

**2.2 Base Map Preparation.** Prepare a project base map utilizing City GIS and information obtained from other tasks. This base map will include edge of pavement, curb lines, and approximate location of utilities, including valve boxes, manholes, catch basins, and other utility structures.

**2.3 Utility Notification.** Notify private utility providers of the proposed improvements and coordinate to determine if any infrastructure improvements are planned in these areas. Maps of the project areas will be sent to each private utility. The maps will be followed up with phone conversations and a letter or email to each utility. If utilities are planning improvements, Wallis Engineering will coordinate with the City regarding any scheduling impacts. It is anticipated that the first notification will be sent to all utilities by April 22, 2019.

Coordinate with City staff in regards to maintenance upgrades or replacements that may be required for water, storm sewer, and sanitary sewer infrastructure in the project areas not previously identified.

**2.4 Pre- and Post-Construction Monument Survey (Subtask Included as placeholder only)** Due to the uncertainty of the specific street segments to be included in the contract documents, Monument Research and Pre- and Post-Construction Monument Survey efforts required by ORS 209.155 are not included in detail at this time. The level of effort to evaluate monumentation requirements can vary significantly depending on individual roadways. As such, it is anticipated that Compass Land Surveyors will provide a detailed scope of services to provide monumentation services at the time that project street segments to be included in the construction contract are identified. An assumed budget of \$30,000.00 is included for this task at this time, and a detailed scope of work and fee estimate will be prepared after the completion of Task 3. Work under this item will require separate notice to proceed from the City following submission of a detailed scope of work.

### ***Assumptions:***

- The City will provide City GIS information in AutoCAD format and available as-builts for use by Wallis Engineering.
- The City will provide information on historical drainage issues and other proposed City utility needs including all existing drainage, sewer and water structures requiring repair, modification or replacement.
- A supplemental agreement will be submitted to the City to address all Pre and Post-Monumentation needs of the project based on the streets selected for the construction contract.
- The City will complete any potholing of existing public utility lines deemed necessary as a result of the proposed surface treatment selection.
- No topographic survey information will be obtained. Contract plans will be generated from available GIS records and field surveys.
- An assumed budget of \$30,000.00 is included for work under Task 2.4. A detailed scope of work and fee schedule will be provided to the City following the identification of the streets to be included in the contract. Separate Notice to Proceed will be required from the City prior to commencing work.

### ***Deliverables:***

- Project base map in AutoCAD format.
- Utility contact list.
- Informational letters and project notices to each affected utility.

## **TASK 3 PRELIMINARY DESIGN**

**3.1. Field Investigation.** Wallis Engineering, GeoDesign and City staff will conduct a site visit of each street segment being considered for surfacing treatment. A visual assessment of existing roadway conditions

will be documented including fatigue cracking, pavement failure and other observed defects. The project team will discuss the proposed surfacing treatments options and collaboratively make recommendations for the appropriate treatment of each street. This task includes an assumed total of 8 hours to visit and evaluate all project areas.

**3.2. Field Investigation Summary Memorandum.** Wallis will prepare a memorandum summarizing all discussions and recommendations from efforts completed in Task 3.1. A written description of the observations of each street will be included along with photographs of representative project areas. Wallis will also prepare preliminary costs estimates for each evaluated project segment based on the recommended surface treatment.

**Assumptions:**

- Evaluation of existing pavements will be limited to a visual assessment. No pavement coring, GPR, FWD testing, etc. will be collected as part of the assessment.

**Deliverables:**

- Field investigation Summary Memorandum including preliminary cost estimates.

## **TASK 4 PLANS, SPECIFICATIONS AND ESTIMATE (PS&E) DEVELOPMENT**

**4.1 60% Plans, Specifications Outline and Opinion of Cost .** A specifications outline, opinion of cost and Plans will be prepared to 60% design level; comprised of the streets recommended for inclusion in the Contract identified in Task 3. Drawing format will be AutoCAD Civil 3D 2018 and will be prepared using standard City title block as provided by the City. Plans will include the following:

- Plans and detail sheets. Where necessary, more detail will be included such as striping plans, utility improvement plans, erosion control plans and demolition plans.
- Traffic control, phasing and coordination details.
- Erosion control plans prepared to meet City standards.
- The following is the anticipated list of plan sheets:

<b>Description</b>	<b>Sheets</b>	<b>Running Total</b>
Cover, Drawing Index	1	1
Legend, General Notes, Traffic Control Notes and Phasing	1	2
Typical Sections	1	3
Sheet Layout Map	1	4
Street Segment 1	3	7
Street Segment 2	3	10
Street Segment 3	3	13
Street Segment 4	2	15
Street Segment 5	2	17
Street Segment 6	2	19
Details	2	21

**4.2. 90% Plans, Specifications and Opinion of Cost.** 90% plans will be prepared incorporating review comments from the City. Specifications will use City of Oregon City standards and the “2018 Oregon/APWA Standard Specifications for Public Works Construction”. Special Provisions will be prepared, as needed, to address project work not adequately covered in the Standard specifications and will include any Special Provisions previously prepared by the City to address asphalt concrete workmanship. Wallis Engineering will attend one meeting to review City comments.

**4.3. Final Plans, Specifications and Opinion of Cost.** Final plans, specifications, and an opinion of cost will be prepared as a reproducible set incorporating review comments from the City.

***Assumptions:***

- Signing and striping improvements will be limited to replacing the existing delineation and signs in like kind and location unless specifically noted.
- Utility improvements will be limited to adjusting existing structures to grade or replacing non-standard structures as needed.
- Traffic control plans included in the Contract plans will be limited to general notes and ODOT standard plans. No site-specific traffic control plans will be prepared. It is assumed that the Contractor will prepare detailed and site specific traffic control plans.
- The City will provide legal review of all front-end bidding documents.
- Wallis Engineering will attend up to two (2) meetings to review City comments. The hours and cost for this meeting is incorporated under Task 1.

***Deliverables:***

- Electronic versions of the 60%, 90% and final PS&E.

## **TASK 5 BIDDING PHASE SERVICES**

**5.1. Bidding Services.** Wallis Engineering will provide bidding services to the City, including responding to bidder’s questions and preparing addenda (as needed). A summary sheet of all bidder questions and responses will be provided to the City following the opening of bids, or as requested.

***Assumptions:***

- City will distribute the contract documents, maintain a plan holder’s list, and distribute addenda as needed.
- Wallis Engineering will not attend the bid opening.

***Deliverables:***

- Addenda (as needed).
- Bidder question and response summary sheet.
- Recommendation of Award

## **TASK 6 CONSTRUCTION PHASE (NOT INCLUDED AT THIS TIME)**

**Agreement**  
**Exhibit A - Fee Estimate**  
**City of Oregon City - 2019 PMUF Program**  
**WE #1476A**  
**March 2019**

TASK		E1	E2	E3	E6	T1	C1	Staff Cost	Expenses	Subconsultants		Total Cost
										Compass	GeoDesign	
		\$160.19	\$149.72	\$130.88	\$88.99	\$100.52	\$73.30					
Task 1	Project Management and Administration											
1.1	Define Project Objectives	1	4				2	\$ 905.67				\$ 905.67
1.2	Project Management and Administration											
1.2.1	Project Schedule		4				1	\$ 672.18				\$ 672.18
1.2.2	Monthly Status Reports		2				4	\$ 592.64				\$ 592.64
1.2.3	Three Project Meetings		12				6	\$ 2,236.44	\$ 98.00 (M)			\$ 2,334.44
	TASK 1 SUBTOTAL	1	22	0	0	0	13	\$ 4,406.93	\$ 98.00	\$ -	\$ -	\$ 4,504.93
Task 2	Data Collection and Evaluation											
2.1	Site Investigation and Data Collection		8	8	12			\$ 3,312.68	\$ 33.00 (M)			\$ 3,345.68
2.2	Base Map Preparation		4		16	32		\$ 5,239.36				\$ 5,239.36
2.3	Utility Notification		2	4	12		4	\$ 2,184.04				\$ 2,184.04
2.4	Pre- and Post-Construction Monumentation (Not included)							\$ -		\$30,000.00		\$ 30,000.00
	TASK 2 SUBTOTAL	0	14	12	40	32	4	\$10,736.08	\$ 33.00	\$30,000.00	\$ -	\$ 40,769.08
Task 3	Preliminary Design											
3.1	Field Investigation		8					\$ 1,197.76	\$ 65.00 (M)		\$ 2,005	\$ 3,267.76
3.2	Field Investigation Summary Memorandum	1	8		16		4	\$ 3,074.99				\$ 3,074.99
	TASK 3 SUBTOTAL	1	16	0	16	0	4	\$ 4,272.75	\$ 65.00	\$ -	\$ 2,005.00	\$ 6,342.75
Task 4	Plans, Specifications, and Estimate (PS&E) Development											
4.1	60% PS&E	4	24	8	60	60	2	\$16,798.28				\$ 16,798.28
4.2	90% PS&E	2	16	32	20	30	4	\$11,992.66				\$ 11,992.66
4.3	Final PS&E	2	12	16	12	20	2	\$ 7,435.98				\$ 7,435.98
	TASK 4 SUBTOTAL	8	52	56	92	110	8	\$36,226.92	\$ -	\$ -	\$ -	\$ 36,226.92
Task 5	Bid Phase Services											
5.1	Bidding Services		8		8		8	\$ 2,496.08				\$ 2,496.08
	TASK 5 SUBTOTAL	0	8	0	8	0	8	\$ 2,496.08	\$ -	\$ -	\$ -	\$ 2,496.08
Task 6	Construction Phase Services (Not Included)											
	TASK 6 SUBTOTAL	0	0	0	0	0	0	\$ -	\$ -	\$ -	\$ -	\$ -
	GRAND TOTAL	10	112	68	156	142	37	\$58,138.76	\$ 196.00	\$30,000.00	\$ 2,005.00	\$ 90,339.76

Depending on availability, actual staff usage may not match the above estimated hours breakdown. Billing rates for all staff are listed in the Fee Summary.

<b>FEE SUMMARY</b>			
Staff	Hours	Rate	Fees
SE - Senior Engineer	0	\$ 184.28	\$ -
E1 - Engineer 1	10	\$ 160.19	\$ 1,601.90
E2 - Engineer 2 (PM)	112	\$ 149.72	\$ 16,768.64
E3 - Engineer 3	68	\$ 130.88	\$ 8,899.84
E4 - Engineer 4	0	\$ 106.80	\$ -
E5 - Engineer 5	0	\$ 100.52	\$ -
E6 - Engineer 6	156	\$ 88.99	\$ 13,882.44
SD- Senior Designer	0	\$ 127.74	\$ -
Inspector	0	\$ 95.28	\$ -
T1 - Technician 1	142	\$ 100.52	\$ 14,273.84
TW- Technical Writer	0	\$ 88.99	\$ -
C1 - Clerical 1	37	\$ 73.30	\$ 2,712.10
<b>Total Fees from Staff</b>			<b>\$ 58,138.76</b>
Subconsultant			Fees
Compass			\$ 30,000.00
GeoDesign			\$ 2,005.00
<b>Total Fees from Subconsultants</b>			<b>\$ 32,005.00</b>
NOTE: Fee includes 10% markup			
Expenses			Cost
Printing (P)			\$ -
Mileage (M)			\$ 196.00
<b>Total Fees from Expenses</b>			<b>\$ 196.00</b>
<b>TOTAL BUDGET</b>			<b>\$ 90,339.76</b>



## **EXHIBIT A**

### **RATE SCHEDULE**

**Rates are effective thru December 31, 2019**

<u>Staff</u>	<u>Hourly Rate</u>
Senior Engineer	\$184.28
Engineer 1	\$160.19
Engineer 2	\$149.72
Engineer 3	\$130.88
Engineer 4	\$106.80
Engineer 5	\$100.52
Engineer 6	\$88.99
Senior Designer	\$127.74
Inspector	\$95.28
Technician 1	\$100.52
Technical Writer	\$88.99
Clerical 1	\$73.30

These hourly rates include in-house office expenses, photocopying, and other incidental items. Mileage will be reimbursed at the current standard IRS rate. Outside expenses will be billed at cost plus 10%.