

PROJECT 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 in areas of Oregon City. Minor utility maintenance upgrades and adjustments 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 to receive pavement rehabilitation in 2020 following the replacement of existing utilities under a separate contract. Wallis Engineering will design rehabilitation improvements to the streets identified by the City based on available budget, and will also include restoration of utility trenches not repaired by the separate contract. Wallis Engineering will build the proposed design on previously-completed design efforts. To meet the requirements of recent Department of Justice rulings, pedestrian ramps at each intersection within the project areas will be evaluated and replaced if found to be out of compliance with current ADA requirements. A list of the identified streets and assumed rehabilitation improvements are provided below:

<i>Street</i>	<i>From</i>	<i>To</i>	<i>Proposed Improvement (Assumed)</i>	<i>Length (ft)</i>	<i>Existing Curb Ramps</i>	<i>Anticipated Curb Ramp Reconstruction</i>
High Street	3rd Street	7th Street	Full Reconstruction	1,430	14	14
4th Street	High Street	Center Street	Overlay	1,180	0	0
5th Street	High Street	Center Street	Mill and Inlay	220	0	0
6th Street	High Street	Center Street	Mill and Inlay	220	0	0

Notes:

- Pavement rehabilitation on the side streets north of High Street will include 'T' Cut pavement restoration only.
- Rehabilitation improvements for 4th, 5th and 6th Street between High Street and Center Street will be designed as part of this contract but may be removed at any time if it is determined that sufficient budget is not available to complete the waterline improvements being designed in parallel with this project under a separate contract.
- Improvement limits on 4th, 5th, and 6th Street will terminate prior to impacting the Center Street crosswalks and pedestrian ramp improvements will therefore not be required.

CONTRACT DURATION

Contract term shall be from the date contract is fully executed until December 31, 2020.

PROJECT TEAM

Wallis Engineering will serve as the prime consultant for this project, leading a team of subconsultants to complete all the services identified in the specific scope of work. The project team is listed below, with the responsibilities which they will complete.

<i>Consultant</i>	<i>Responsibilities</i>
Wallis Engineering (Wallis)	Civil Engineering
GeoDesign, Inc.	Geotechnical Engineering

SPECIFIC SCOPE OF WORK

TASK 1 PROJECT MANAGEMENT AND ADMINISTRATION

1.1 Define Project Objectives

The project manager will coordinate with City Staff to 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.

Prepare project design schedules outlining design and deliverable milestones. Prepare monthly status reports and schedule updates to be included with consultant invoices. Coordinate project team meetings and prepare meeting agendas and meeting minutes. Coordinate the proposed improvements with TriMet and as necessary, including proposed bus stop closures and detours during construction. Coordinate the proposed improvements with the City's consultant RH2, who is surveying and designing water, sewer, and stormwater improvements within and adjacent to the project limits.

This task assumes the following meetings:

- 50% Design Review Meeting
- 90% Design Review Meeting
- One coordination meeting with RH2 and the City

Assumption:

- Design phase of the project is assumed to be October 2019 – March 2020
- Construction phase is assumed to be July 2020 – October 2020.
- City project manager or designees will complete all stakeholder coordination, public involvement, and lead and obtain all necessary permits.

Deliverables:

- Final scope and schedule.
- Monthly status reports and invoices.
- Meeting agendas and minutes.

TASK 2 DATA COLLECTION AND EVALUATION

2.1 *Site Investigation*

Review as-built/record drawings, existing mapping, aerial photos, GIS provided by the City and private utility providers, and survey information provided by the City. 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 topographic survey information provided by the City, City GIS data and information obtained from other tasks. This base map will include edge of pavement, curb lines, and location of utilities, including valve boxes, manholes, catch basins, and other utility structures. The base map will also include the collected monument information and any topographic survey information collected.

2.3 *Review of Existing Data*

Review previous data collection efforts completed as part of past projects including previously-completed phases of High Street, past geotechnical observations, and ADA compliancy documents and correspondence associated with past PMUF work.

2.4 *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 December 1st, 2019. All public utility maintenance upgrades and replacements will be completed as part of a separate contract being completed by RH2. Wallis will coordinate the pedestrian ramp and roadway improvements with RH2 throughout design to ensure both designs are compatible with the other.

Assumptions:

- The City will provide City GIS information in AutoCAD format and available as-builts/record drawings for use by Wallis Engineering.
- Topographic survey and monumentation will be completed by Compass Land Surveyors under a separate contract and will be made available to Wallis Engineering.
- The collected topographic survey information is of sufficient detail to accurately design the curb ramp and roadway improvements.
- 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. The replacement of all waterlines within the project areas are anticipated and will be design by a separate consultant parallel with the design of this contract.
- The City will complete potholing of existing public utility lines and services as necessary in project areas requiring full reconstruction to identify utility conflicts with the proposed reconstruction section.
- It is anticipated that several PGE poles will require relocation as part of the ADA ramp retrofits. All coordination efforts are included in Task 2.4.

Deliverables:

- Project base map in AutoCAD format.
- Utility contact list.

TASK 3 PAVEMENT EVALUATION SERVICES

GeoDesign will assist in evaluating pavement conditions, participate in discussions regarding rehabilitation treatment selection, and review the memorandum prepared by Wallis Engineering. The specific scope of services includes the following:

- Participate in site visits to the street segments, together with City and Wallis Engineering representatives, to observe pavement conditions, discuss the findings, and assist in proposing an appropriate treatment. We assume a total of 6 hours for a site visit.
- Review past information and explorations for High Street
- Field locate core exploration locations, request One-Call locates, and obtain permits through the City
- Complete a total of four core boring explorations
 - o Explorations up to 3 feet below ground surface or to refusal.
 - o One core each at 4th, 5th, 6th, and 7th Street.
 - o Patch holes with polymer-modified asphalt cold patch
 - o Conduct laboratory testing of moisture content from one sample from each exploration.
- Complete dynamic cone penetrometer tests (DCP) at each location.
- Conduct GPR tests in the outside wheel track of the main travel lanes using a 2 GHz truck-mounted horn antenna on each street section being considered for rehabilitation.
- Review and discuss traffic information and estimates with the project team for each street section. Estimate required and existing pavement capacity based on traffic information, sub-surface explorations, GPR, and DCP results.
- Provide recommendations for pavement rehabilitation
- Provide recommendations for materials and construction
- Complete a draft and final letter report.

Assumptions:

- All permitting requirements and fees will be completed by the City.
- Full reconstruction road sections will be determined through work completed under Task 3.1 and 3.2. Preliminary assessments suggest that 4th Street, 6th Street and portions of High Street may require complete reconstruction.

Deliverables:

- Field investigation findings summary letter.
- Construction material specification recommendations.
- Provide street section recommendations for full reconstruct areas.

TASK 4 DESIGN PHASE

4.1 Predesign Report

A brief pre-design memo will be prepared, discussing the following items:

- An outline of the project areas.
- A summary of the pavement evaluation and recommended pavement design section for each area.
- A summary of known drainage issues and recommended solutions.
- A summary of the required ADA curb ramps improvement locations and intersections to be designed with curb return bulb-outs.
- A summary of any private utility improvement projects/upgrades.
- Discussion on maintaining traffic and public access during construction.
- An outline of contract documents, including scale and level of detail on plan sheets.

4.2 50% Plans, Specifications Outline and Opinion of Cost

Plans will be prepared to 50% design level for pavement, curb ramp and utility improvements as determined in the predesign phase. 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 centerline or curb line profiles as needed, 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:

<i>Description</i>	<i>Sheets</i>	<i>Running Total</i>
Cover, Drawing Index	1	1
Legend, General Notes, Traffic Control Notes and Phasing	1	2
Typical Sections	2	4
Plan Sheet – High Street	4	8
Plan Sheet – 4th Street	1	9
Plan Sheet – 5th Street	1	10
Plan Sheet – 6th Street	1	11
Pedestrian Ramp Details	6	17
Details	5	22

A specification outline and 50% opinion of cost will be prepared.

4.3 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. Design will include:

- Horizontal and vertical design for fully reconstructed roadways and horizontal design for rehabilitated surfaces including utility adjustments, street amenity relocations and striping provisions.
- Areas of curb replacement necessary to replace failed or missing curb segments.
- Permanent trench restoration limits required as part of the waterline project being designed in parallel to this contract by other consultants.
- Three-dimensional curb ramp retrofit/replacement layouts utilizing the topographic survey provided by the City. Ramp layouts will conform to PROWAG and ODOT/APWA standards utilizing City and ODOT standard drawings. Wallis Engineering will coordinate and verify final layout and grades with the construction contractor under Task 6.
- Curb ramps at 5th and High Street, which will be designed with bulb-outs similar to those constructed at 3rd and High Street as part of past projects.

4.4 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:

- Of the 14 existing curb ramp locations within the proposed project areas, all locations appear to require installation or reconstruction based on a preliminary visual survey of existing ramp geometry using aerial and street view software.
- All ramp reconstructions will be completed within the limits of the existing sidewalk and it is therefore assumed that adequate Right of Way is available for these reconstructions.
- Any Temporary Construction Permits necessary to construct sidewalk outside of the limits of the existing sidewalk will be coordinated and obtained by the City.
- Signing and striping improvements will be limited to replacing the existing delineation and signs in like kind and location unless specifically noted. Crossing closure signs will be installed as necessary.
- Utility improvements will be limited to adjusting existing structures to grade. All waterline, sewer and drainage improvements/replacements will be completed by a separate consultant and constructed under a separate contract.
- 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 two (2) meetings to review City comments and one (1) meeting with the utility consultant. The hours and cost for these meeting is incorporated under Task 1.
- No stormwater improvements to address hydromodification or treatment will be required as part of these improvements.

Deliverables:

- Predesign report.
- Electronic versions of the 50%, 90% and final PS&E.

TASK 5 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

The Consultant will provide construction administration and inspection services with support from the City for additional inspection, public notifications and other coordination related items as needed. Construction phase services shall include:

6.1 Construction Administration

Conduct the pre-construction meeting with City staff, the contractor and representatives of the utility companies to effectively communicate those areas of the project which will require special attention during construction. Review monthly payment requests by the contractor, verify quantities included in each pay request and prepare payment recommendations to the City. Complete a final pay estimate at project completion.

6.2 Construction Engineering and Field Inspection Review and respond to contractor submittals, shop drawings, requests for information, notifications of differing site conditions, the Contractor prepared Quality Control, Quality Assurance plan, Work plans and completed field testing for conformance to the contract documents. Consult with the City regarding the acceptability of material substitutes or 'as-equal' items proposed by the contractor.

Provide construction management oversight of the Contractor's work schedule and quality, coordinate construction tasks with City, public and other non-agency entities, and evaluate field design changes as necessary to complete the project. The budget assumes eight (8) hours per week for a ten-week construction period.

Attend weekly construction progress meetings to address construction related issues.

Provide daily site inspections to monitor the quality and progress of the work. Provide inspector's daily report of construction activities for each day of inspection along with project photos. The budget assumes 45 hours per week for a ten-week construction period and includes assistance with monthly progress payments and attendance of the weekly meetings. Daily inspection services can be supplemented or

replaced by City Staff at the discretion of the City. Additional construction inspection support by the Construction Manager is assumed for four (4) hours per week for a ten-week construction period.

Provide a final walk-through with the contractor and City staff at the project completion. Provide written punch list to the contractor and recommendation of final acceptance when appropriate.

6.3 As-built / Record Drawings

Prepare as-built / record drawings for any utility improvements upon completion of construction.

Assumptions:

- Inspection hours based on a ten-week construction schedule at 45 hours per week.
- Construction staking services will be provided by the Contractor (as needed).
- The City will provide construction staking for monuments to be replaced under a separate contract.
- Post-Construction as-built survey will not be performed.

Deliverables:

- Monthly pay estimates and recommendations.
- Submittal comments and response log.
- Inspector's daily report for each working day of inspection.
- Weekly meeting minutes for each construction meeting.
- Final Punch List and Recommendation of Final Acceptance.
- Electronic version of As-built / Record Drawings.

Agreement
Exhibit B - Fee Estimate
City of Oregon City - 2020 PMUF Paving Improvements
WE #1491A
September 2019

TASK		E1	E2	E3	E5	T1	C1	Staff Cost	Expenses	Subconsultants GeoDesign	Total Cost
		\$160.19	\$149.72	\$130.88	\$100.52	\$100.52	\$73.30				
Task 1	Project Management and Administration										
1.1	Define Project Objectives	1	8				2	\$ 1,504.55			\$ 1,504.55
1.2	Project Management and Administration							\$ -			\$ -
	Project Design Schedule	1	2				1	\$ 532.93			\$ 532.93
	Monthly Status Reports		12		8		6	\$ 3,040.60			\$ 3,040.60
	Three Project Meetings		15		9		3	\$ 3,370.38	\$ 90.00 (M)		\$ 3,460.38
	Stakeholder Coordination		8					\$ 1,197.76			\$ 1,197.76
	TASK 1 SUBTOTAL	2	45	0	17	0	12	\$ 9,646.22	\$ 90.00	\$ -	\$ 9,736.22
Task 2	Data Collection and Evaluation										
2.1	Site Investigation		4		8	2		\$ 1,604.08	\$ 60.00 (M)		\$ 1,664.08
2.2	Base Map Preparation				2	4		\$ 603.12			\$ 603.12
2.3	Review of Existing Data		8		8			\$ 2,001.92			\$ 2,001.92
2.4	Utility Notification		8	4	24			\$ 4,133.76			\$ 4,133.76
	TASK 2 SUBTOTAL	0	20	4	42	6	0	\$ 8,342.88	\$ 60.00	\$ -	\$ 8,402.88
Task 3	Pavement Evaluation Services										
	Pavement Evaluation Services		6					\$ 898.32		\$ 9,020.00	\$ 9,918.32
	TASK 3 SUBTOTAL	0	6	0	0	0	0	\$ 898.32	\$ -	\$ 9,020.00	\$ 9,918.32
Task 4	Design Phase										
4.1	Predesign Report	1	8		8		2	\$ 2,308.71			\$ 2,308.71
4.2	50% Plans, Specifications and Estimate	4	32		80	80		\$ 21,515.00	\$ 20.00 (P)		\$ 21,535.00
4.3	90% Plans, Specifications and Estimate	6	56		72	48		\$ 21,407.86	\$ 20.00 (P)		\$ 21,427.86
4.4	Final Plans, Specifications and Estimate	2	32		48	24		\$ 12,348.86			\$ 12,348.86
	TASK 4 SUBTOTAL	13	128	0	208	152	2	\$ 57,580.43	\$ 40.00	\$ -	\$ 57,620.43
Task 5	Bidding Services										
	Bidding Services		12		4			\$ 2,198.72			\$ 2,198.72
	TASK 5 SUBTOTAL	0	12	0	4	0	0	\$ 2,198.72	\$ -	\$ -	\$ 2,198.72
Task 6	Construction Phase Services										
6.1	Construction Administration							\$ -			\$ -
	PreConstruction Meeting		8		4		2	\$ 1,746.44			\$ 1,746.44
	Monthly Progress Payments (3)		12		8			\$ 2,600.80			\$ 2,600.80
6.2	Construction Engineering and Field Inspection							\$ -			\$ -
	Submittal and RFI Review		20		40		8	\$ 7,601.60			\$ 7,601.60
	Construction Management		80					\$ 11,977.60			\$ 11,977.60
	Progress Meetings		32					\$ 4,791.04	\$ 300.00 (M)		\$ 5,091.04
	Construction Inspection		40		450			\$ 51,222.80	\$ 1,510.00 (M)		\$ 52,732.80
	Final Inspection		12		20			\$ 3,807.04	\$ 60.00 (M)		\$ 3,867.04
6.3	As-built / Record Drawings		2		8	8		\$ 1,907.76			\$ 1,907.76
	TASK 6 SUBTOTAL	0	206	0	530	8	10	\$ 85,655.08	\$ 1,870.00	\$ -	\$ 87,525.08
	GRAND TOTAL	15	417	4	801	166	24	\$ 164,321.65	\$ 2,060.00	\$ 9,020.00	\$ 175,401.65

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.

FEE SUMMARY				
Staff	Hours	Rate	Fees	
SE - Senior Engineer	0	\$ 184.28	\$	-
E1- Engineer 1	15	\$ 160.19	\$	2,402.85
E2 - Engineer 2 (PM)	417	\$ 149.72	\$	62,433.24
E3 - Engineer 3	4	\$ 130.88	\$	523.52
E4 - Engineer 4	0	\$ 106.80	\$	-
E5- Engineer 5	801	\$ 100.52	\$	80,516.52
E6 -Engineer 6	0	\$ 88.99	\$	-
SD- Senior Designer	0	\$ 127.74	\$	-
Inspector	0	\$ 95.28	\$	-
T1 - Technician 1	166	\$ 100.52	\$	16,686.32
TW- Technical Writer	0	\$ 88.99	\$	-
C1 - Clerical 1	24	\$ 73.30	\$	1,759.20
Total Fees from Staff			\$	164,321.65
Subconsultant			Fees	
Surveyor			\$	-
TRC - The Resource Company			\$	-
Electric.			\$	-
GeoDesign			\$	9,020.00
Total Fees from Subconsultants			\$	9,020.00
<i>NOTE: Fee includes 10% markup</i>				
Expenses			Cost	
Printing (P)			\$	40.00
Mileage (M)			\$	2,020.00
Total Fees from Expenses			\$	2,060.00
TOTAL BUDGET			\$	175,401.65

EXHIBIT B

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%.