

Exhibit A  
Amendment No. 5  
Scope of Work  
City of Oregon City  
Hazelwood Drive Sewer Replacement  
Services During Construction  
Project No. CI 16-005  
RH2 Project No. ORC 917.061  
March 2019

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## Background

On April 5, 2017, the City of Oregon City (City) entered into a Professional Services Agreement authorizing RH2 Engineering, Inc., (RH2) to provide engineering services for the Hazelwood Drive Sewer Replacement Project. The Phase 1 – Alternatives Analysis recommended that the existing under-sized sewer be replaced in an alternate alignment instead of through backyard easements into Hazelwood Drive between the residences located at 923 Hazelwood Drive and 1012 Hazelwood Drive. The sewer main in the backyard easements is to become a local collection sewer. The other sections of the existing under-sized sewer main are recommended to be replaced in the original alignments.

Initially, the agreement provided for the alternatives analysis to determine the preferred approach to replace and upsize the sewer and to provide preliminary engineering. The agreement was revised by Amendment No. 1 to perform additional geotechnical and environmental review for the segment in the recommended alternate alignment. The agreement also was revised by Amendment No. 2 to provide for preliminary design of this new segment in the alternate alignment and to design the upsized replacement sewer main in the other areas, to keep the project moving while the alternate alignment was evaluated.

Based on the alternatives analysis, the City chose to move forward with increasing the capacity of the downstream segments that are within existing street right-of-way and follow this with increasing the capacity of the upstream segments, parts of which are in sensitive areas and easements and will require additional permitting and construction easements. The downstream segments, defined as "Schedule B," consisted of replacing approximately 1,300 linear feet (LF) of gravity sewer main in Hazelwood Drive, and construction is expected to be completed by March 2019. Design of the upstream segments, defined as "Schedule A," consists of replacing approximately 1,300 LF of gravity sewer main upstream of Hazelwood Drive and is expected to be constructed in 2019, allowing time for the required permitting to be completed.

This amendment authorizes the above-noted revisions to the project scope of work and fee estimate by providing services during construction for the "Schedule A" (upstream) sewer main segments. Design of the "Schedule A" segments was previously included under Amendment Nos. 2 and 3. The work authorized by this amendment will be performed and invoiced using the terms and conditions listed in the original agreement, plus previous amendments and/or agreements.

## Phase 3 – Services During Construction

### Task 7 – Services During Construction (Schedule A)

Objective: Provide construction contract administration services during project construction to support the City. As the engineer of record, RH2 will provide periodic observation of the construction to review whether those elements of construction that are observed by RH2 conform to the project plans and specifications. RH2 is not responsible for site safety or for directing the contractor in their work.



Approach:

- 7.1 Attend Pre-Construction Conference: Prepare for and attend a pre-construction conference with the contractor, City, RH2, and impacted or adjacent utilities. Prepare an agenda and meeting summary for the pre-construction conference.
- 7.2 Review Clarifications and Change Orders: Review written requests for information (RFIs) and change order proposals and provide written responses to the City.
- 7.3 Review Submittals: Review contractor submittals, shop drawings, and field testing per the project documents. Coordinate with the City regarding substitute and "or-equal" items proposed for use by the contractor.
- 7.4 Review Progress Payments: Review contractor submitted progress payments and coordinate preparation of the application for payment for City review.
- 7.5 Perform Periodic Field Observations: Provide periodic observation of the construction work in progress per the plans, specifications, and City Standards. Prepare daily field reports for each site visit. It is assumed that construction observation will include, on average, approximately thirty-two (32) hours per week for eight (8) weeks of construction, plus oversight. RH2 will coordinate with the contractor and City inspectors to provide construction observation at critical stages of construction and as requested by the City. The contractor will retain and coordinate with testing firm(s) for any special inspections. Meet with the City and contractor weekly to review contractor's progress. Prepare meeting agendas and summary for construction meetings. Assist the City with project closeout services, including production of a punch list and review of punch list with the contractor and City for completion. Prepare recommendation letter for project acceptance.
- 7.6 Prepare Record Drawings: Provide record drawings representative of the as-constructed project. Record drawings will be completed based upon contractor and City inspector red-lined markups to as-bid drawings. Record drawings will be completed per City Standards.

Assumptions:

- RH2 will provide construction contract administration and observations, including periodic site visits to monitor progress, respond to questions and address issues, confirm pay requests, and other on-call requests from the City. An average of thirty-two (32) hours per week for eight (8) weeks has been assumed for field visits and observations.
- Submittal review is assumed to be ten (10) submittals with 25-percent resubmittal, including the project schedule and schedule updates.
- The contractor will be responsible for providing construction survey and staking for field control and as-built surveying for use in preparing as-built drawings.
- Construction phase services defined in this Task are variable in nature and depend in part on the contractor awarded the project. RH2's estimate is based upon an experienced and reasonable contractor being awarded the construction contract. RH2 recommends the City budget the amount shown in the estimate plus a contingency amount. The contingency would cover additional services if a more intensive level of observation and construction support is necessary.

RH2 Deliverables:

- Pre-construction conference administration and documentation, including pre-construction conference meeting agenda and summary in electronic format (PDF).



- Clarifications and change orders review and documentation, if required, in electronic format (PDF).
- Submittal and shop drawings review and documentation in electronic format (PDF).
- Weekly construction meeting agenda and summary in electronic format (PDF).
- Construction observation and correspondence with the City and contractor, as needed, within the budgeted hours authorized. Construction observation reports from site visits to be provided to the City at progress meetings.
- Punch list in electronic format (PDF).
- Letter recommending substantial completion and project acceptance in electronic format (PDF).
- Record drawings in PDF and AutoCAD® DWG format, including external references, prepared in accordance with City Standards.



**EXHIBIT B**

City of Oregon City

Hazelwood Drive Sewer Replacement - Services During Construction

Amendment No. 5

Estimate of Time and Expense

Description	Total Hours	Total Labor	Total Expense	Total Cost
Classification				

**Phase 3 - Services During Construction**

Task 7	Services During Construction (Schedule A)	377	\$ 60,654	\$ 3,101	\$ 63,755
7.1	Attend Pre-Construction Conference	12	\$ 2,100	\$ 115	\$ 2,215
7.2	Review Clarifications and Change Orders	24	\$ 3,944	\$ 154	\$ 4,098
7.3	Review Submittals	28	\$ 4,484	\$ 196	\$ 4,680
7.4	Review Progress Payments	9	\$ 1,446	\$ 64	\$ 1,510
7.5	Perform Periodic Field Observations	284	\$ 45,496	\$ 2,439	\$ 47,935
7.6	Prepare Record Drawings	20	\$ 3,184	\$ 135	\$ 3,319

Subtotal Phase 3 - Services During Construction Tasks	377	\$ 60,654	\$ 3,101	\$ 63,755
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PROJECT TOTAL	377	\$ 60,654	\$ 3,101	\$ 63,755
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EXHIBIT C  
RH2 ENGINEERING, INC.  
2019 SCHEDULE OF RATES AND CHARGES

RATE LIST	RATE	UNIT
Professional I	\$142	\$/hr
Professional II	\$157	\$/hr
Professional III	\$168	\$/hr
Professional IV	\$180	\$/hr
Professional V	\$194	\$/hr
Professional VI	\$203	\$/hr
Professional VII	\$218	\$/hr
Professional VIII	\$226	\$/hr
Professional IX	\$226	\$/hr
Technician I	\$97	\$/hr
Technician II	\$102	\$/hr
Technician III	\$133	\$/hr
Technician IV	\$141	\$/hr
Administrative I	\$70	\$/hr
Administrative II	\$82	\$/hr
Administrative III	\$98	\$/hr
Administrative IV	\$116	\$/hr
Administrative V	\$133	\$/hr
CAD/GIS System	\$27.50	\$/hr
CAD Plots - Half Size	\$2.50	price per plot
CAD Plots - Full Size	\$10.00	price per plot
CAD Plots - Large	\$25.00	price per plot
Copies (bw) 8.5" X 11"	\$0.09	price per copy
Copies (bw) 8.5" X 14"	\$0.14	price per copy
Copies (bw) 11" X 17"	\$0.20	price per copy
Copies (color) 8.5" X 11"	\$0.90	price per copy
Copies (color) 8.5" X 14"	\$1.20	price per copy
Copies (color) 11" X 17"	\$2.00	price per copy
Technology Charge	2.50%	% of Direct Labor
Mileage	\$0.580	price per mile (or Current IRS Rate)
Subconsultants	15%	Cost +
Outside Services	at cost	

Rates listed are adjusted annually.