AGENDA
Utilities Committee Regular Meeting
5:30 PM - Monday, November 25, 2019
Council Conference Room, 7th Floor, City Hall – 1055 S. Grady Way

1. **RH2 Engineering Contract Amendment**
   Highlands 435 Project
   a) **AB - 2508** Utility Systems Division recommends approval of Amendment No. 4 to CAG-16-103, with RH2 Engineering, Inc., in the amount of $199,600, for final design of the Highlands 435 Pressure Zone reservoir and mains replacement project.

2. **Emerging Issues in Utilities**
SUBJECT/TITLE: Amendment No. 4 to CAG-16-103 with RH2 Engineering for the Final Design to Replace the Highlands 435 Pressure Zone Reservoir and Mains

RECOMMENDED ACTION: Refer to Utilities Committee

DEPARTMENT: Utility Systems Division

STAFF CONTACT: Abdoul Gafour, Water Utility Engineering Manager

FISCAL IMPACT SUMMARY:
Funding for Amendment No. 4 to CAG-16-103 with RH2 Engineering in the amount of $199,600 is available from the approved 2019 Water Utility Capital Improvement Program for the Highlands 435 Reservoirs Replacement Project. The total 2019 funding for this project is $18,500,000 (account no. 425.455597). The remaining budget will be used to cover the construction cost of the project, and for services during construction.

SUMMARY OF ACTION:
As part of the review of the 90% design plans for the project, Water Utility staff has identified the need for additional work by the consultant to complete the plans prior to the advertisement of the project for construction bids. The additional design to be performed by the consultant includes:

- Separate the project into two phases, the first phase for construction of the transmission mains and the second phase for the construction of the 6-million-gallon reservoir.
- Prepare design plans and technical specifications for a new pressure reducing valve station, and for electrical improvements at the Highlands pump station to provide operational reliability of the water system during construction of the new reservoir and mains.
- Develop comprehensive phasing and sequencing plans to outline construction requirements in order to maintain water system operations and minimize traffic and construction impacts to the community, along with a street restoration timing schedule.
- Provide project management for the additional design work and for permitting services.

The amendment also includes an extension of the contract completion date to December 31, 2020.

EXHIBITS:
A. Amendment No. 4

STAFF RECOMMENDATION:
Execute Amendment No. 4 to CAG-16-103 with RH2 Engineering, Inc. in the amount of $199,600 for final design to replace Highlands 435 Pressure Zone reservoir and mains.
AMENDMENT NO. 4 TO AGREEMENT FOR REPLACEMENT OF HIGHLANDS 435 PRESSURE ZONE RESERVOIRS AND MAINS — FINAL DESIGN AND BIDDING CAG-16-103

THIS AMENDMENT, dated October 29, 2019, is by and between the City of Renton (the “City”), a Washington municipal corporation, and RH2 Engineering, Inc. (“Consultant”), a Washington corporation. The City and the Consultant are referred to collectively in this Amendment as the “Parties.” Once fully executed by the Parties, this Amendment is effective as of the last date signed by both parties.

Whereas, the City engaged the services of the Consultant under Agreement CAG-16-103, dated June 8, 2016, to provide necessary services for the Replacement of Highlands 435 Pressure Zone Reservoirs and Mains - Final Design and Bidding (referred to herein as the “Agreement”);

Whereas, the Parties wish to amend the Agreement to change the scope of work, change the time for performance, and change the compensation in order to provide additional engineering services and additional time to accommodate the additional work.

NOW THEREFORE, it is mutually agreed upon that CAG-16-103 is amended as follows:

1. **Scope of Work**: Section I, Scope of Work, is amended to add work as specified in Exhibit A-4, which is attached and incorporated herein.
2. **Time of Performance**: Section V, Time of Beginning and Completion, is amended pursuant to the schedule(s) set forth in Exhibit B-4. All Work shall be performed by no later than December 31, 2020.
3. **Compensation**: Section VI, Payment, is amended so that the maximum amount of compensation payable to Consultant is increased by $199,600 from $924,364 to $1,123,964, plus any applicable state and local sales taxes. The additional compensation shall be paid based upon Work actually performed according to the rate(s) or amounts specified in Exhibit C-4, which is attached and incorporated herein.
4. All terms of the Agreement not explicitly modified herein shall remain in full force and effect and such terms shall apply to Work performed according to this Amendment as if fully set forth herein.

IN WITNESS WHEREOF, the Parties have voluntarily entered into this Agreement as of the date last signed by the Parties below.
CITY OF RENTON

By: __________________________________________

Denis Law
Mayor

______________________________________________
Date

Attest

______________________________________________
Jason A. Seth
City Clerk

Approved as to Legal Form

By: __________________________________________

Shane Moloney
Renton City Attorney

Contract Template Updated 09/17/2019
Background

RH2 Engineering, Inc., (RH2) is currently providing engineering services for the design and bidding of a new 6.3 million-gallon (MG) reservoir and 24-inch transmission main to replace the City of Renton’s (City) existing Highlands 435 Pressure Zone (PZ) reservoirs and transmission main, as well as other associated improvements. While originally it was assumed that the project would be bid as a single project, the City has decided to separate the project into multiple phases that will be bid and constructed separately. Other changes have also occurred during the final design stage which have affected the project schedule and increased the project complexity which has resulted in additional design and engineering costs. Design for the Phase 1: 435 Zone and 565 Zone Water Main Improvements was completed in June 2019 and documents submitted to the City. Design for the Phase 2: Highlands 435 Zone Reservoir is at approximately 90-percent completion and is expected to be completed and submitted for permits by Winter 2019/2020 to facilitate a Summer 2020 construction season. This Amendment is an authorization to revise the project Scope of Work and Fee Estimate (Exhibit C-4) as described below to provide additional services necessary to complete design and permitting efforts associated with Phase 1 and to provide professional services during construction for Phase 1.

The estimated level of effort to complete the Phase 1 design was not commensurate of the level of complexity associated with the installation of the proposed improvements within the NE 12th Street corridor. Specifically, the full extent of the congested/constraining nature of the utilities within the NE 12th Street corridor was not identified until after the topographic survey and follow-up geotechnical and subsurface utility investigations were completed as part of the final design scope of work. Further, the construction phasing and water system operational limitations further compounded the efforts needed to complete the design for the off-site and frontage improvements.

Finally, the City has requested that RH2 provide additional design and permitting services to support the utility coordination, construction permitting, and traffic control planning efforts currently underway by City staff. Work associated with these tasks is expected to be performed as requested by the City and on an as-needed time and expense basis, not to exceed the fee estimated in Exhibit C-4.

The Scope of Work is amended to include the following amended and additional tasks.
GENERAL PROJECT TASKS

Task 1 – Project Management Services (Amending Fee Only)

Objective: Provide additional project management services in accordance with the original Scope of Work for the additional design services provided herein.

Approach:

1.6  Provide additional project management services in accordance with the original Scope of Work for the additional design services provided herein. *This change results in an increase in fee but does not result in a scope modification.*

SCHEDULES B AND C – OFF-SITE WATER MAIN AND FRONTAGE IMPROVEMENTS

Task B-3 Off-site Water Main Final Design (Amending Scope and Fee)

Objective: Expand the scope of the final water main design tasks to include additional design services to adequately detail the proposed improvements and to develop comprehensive phasing plans to address operational limitations associated with the water system, the sequencing for construction of the proposed improvements, traffic impacts, and timing for restorative efforts. Additional tasks included the development of additional design drawings including details, upgrades to Highlands Booster Pump Station (BPS), a pressure reducing valve (PRV) station, and construction phasing, as well as the supporting advancements to the technical specifications and cost estimate and associated quality assurance/quality control (QA/QC) reviews.

Approach

B.3.8  Prepare Additional Utility Design Documents – Provide additional design drawings as necessary to address the proposed improvements and the associated challenges inherent with the congested utility corridor and the operability of the water system during project phasing. Update project specifications to address construction phasing requirements and added design elements to facilitate water system operations.

B.3.8.1  Prepare design drawings for an added PRV Station and Highlands BPS electrical improvements needed for construction phasing/operations.

B.3.8.2  Prepare ten (10) Detail Drawings for water system connections, temporary water service, phased repurposing of existing water mains and roadway/corridor restorations.

B.3.8.3  Prepare four (4) Construction Phasing and Staging Plans to outline the construction requirements to maintain water system operations, minimize traffic and community impacts, and timing for restorations.

B.3.8.4  Further develop Technical Specifications to address construction phasing requirements and added design elements.

B.3.8.5  Perform QA/QC review of added plans and updated specifications.
B.3.8.6 Revise Engineer’s Estimate of probable construction cost to account for the added project elements and phasing requirements associated with the proposed improvements and to better align with the project’s significant complexities.

RH2 Deliverables:
- Additional design drawings and drawings per original scope.

Task B4 – Additional Design and Permitting for Utility and Traffic Coordination (Amending Scope and Fee)

Objective: Expand the scope of the final water main design tasks to include additional design and permitting services related to utility coordination and traffic control and routing. Provide additional professional services beyond those identified in this Scope of Work, as requested by the City.

Approach:
B.4.1 Provide additional design and/or permitting services related to utility coordination and traffic control for Phase 1, as requested or approved by the City.
B.4.2 Provide additional design or permitting related services for the project, as requested or approved by the City. The City shall provide written authorization to proceed with the additional services tasks.

RH2 Deliverables:
- Other deliverables as requested by the City under the authorization for additional design or permitting services.
# Exhibit B-4 Time Schedule of Completion

City of Renton

Highlands 435 Pressure Zone Reservoir Improvements
Phase 1 – 6.3 MG Reservoir and Transmission Main
Final Design

<table>
<thead>
<tr>
<th>Task</th>
<th>Anticipated Completion</th>
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</thead>
<tbody>
<tr>
<td>GENERAL PROJECT TASKS</td>
<td></td>
</tr>
<tr>
<td>Task 1 – Project Management</td>
<td>Throughout Contract Duration</td>
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<tr>
<td>Task 2A and 2B – Permitting Assistance</td>
<td>June 30, 2020</td>
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<tr>
<td>Task 3A and 3B – Services During Bidding</td>
<td>July 31, 2020</td>
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<tr>
<td>Task 4 – Additional Design and Permitting Services</td>
<td>June 30, 2020</td>
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<tr>
<td>SCHEDULE A – Highlands 435 Reservoir and Street Frontage Improvements</td>
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<td>Task A1 – Reservoir 60-percent Design</td>
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<td>Task A2 – Reservoir 90-percent Design</td>
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<td>Task A3 – Public Meeting Assistance</td>
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<td>SCHEDULE B and C – Off-site Water Main and Utility Improvements</td>
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<td>Task B1 – Topographic Survey and Geotechnical Investigation</td>
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<td>Task B2 – Off-site Water Main and Utility Preliminary Design</td>
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<td>Task B3 – Off-site Water Main and Utility Final Design</td>
<td>March 31, 2020</td>
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<td>Task B4 – Additional Design and Permitting for Utility and Traffic Coordination</td>
<td>March 31, 2020</td>
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CONTRACT COMPLETION DATE: December 31, 2020
Subconsultant: RH2 ENGINEERING, INC

### Overhead Multiplier
- **Fee Multiplier**: 12.00%
- **Multiplier**: 166.00%

### Professional I
- **Negotiated Rate**: $53.03
- **Overhead Multiplier Cost**: $88.03
- **Negotiated Rate Per Hour**: $148.00

### Professional II
- **Negotiated Rate**: $57.69
- **Overhead Multiplier Cost**: $95.76
- **Negotiated Rate Per Hour**: $161.00

### Professional III
- **Negotiated Rate**: $62.70
- **Overhead Multiplier Cost**: $104.08
- **Negotiated Rate Per Hour**: $175.00

### Professional IV
- **Negotiated Rate**: $66.28
- **Overhead Multiplier Cost**: $110.03
- **Negotiated Rate Per Hour**: $185.00

### Professional V
- **Negotiated Rate**: $71.66
- **Overhead Multiplier Cost**: $118.95
- **Negotiated Rate Per Hour**: $200.00

### Professional VI
- **Negotiated Rate**: $76.32
- **Overhead Multiplier Cost**: $126.69
- **Negotiated Rate Per Hour**: $213.00

### Professional VII
- **Negotiated Rate**: $82.77
- **Overhead Multiplier Cost**: $137.39
- **Negotiated Rate Per Hour**: $231.00

### Professional VIII
- **Negotiated Rate**: $85.99
- **Overhead Multiplier Cost**: $142.74
- **Negotiated Rate Per Hour**: $240.00

### Professional IX
- **Negotiated Rate**: $85.99
- **Overhead Multiplier Cost**: $142.74
- **Negotiated Rate Per Hour**: $240.00

### Technician I
- **Negotiated Rate**: $39.41
- **Overhead Multiplier Cost**: $65.42
- **Negotiated Rate Per Hour**: $110.00

### Technician II
- **Negotiated Rate**: $42.64
- **Overhead Multiplier Cost**: $70.78
- **Negotiated Rate Per Hour**: $119.00

### Technician III
- **Negotiated Rate**: $49.09
- **Overhead Multiplier Cost**: $81.48
- **Negotiated Rate Per Hour**: $137.00

### Technician IV
- **Negotiated Rate**: $52.31
- **Overhead Multiplier Cost**: $86.84
- **Negotiated Rate Per Hour**: $146.00

### Administrative I
- **Negotiated Rate**: $25.80
- **Overhead Multiplier Cost**: $42.82
- **Negotiated Rate Per Hour**: $72.00

### Administrative II
- **Negotiated Rate**: $30.10
- **Overhead Multiplier Cost**: $49.96
- **Negotiated Rate Per Hour**: $84.00

### Administrative III
- **Negotiated Rate**: $36.19
- **Overhead Multiplier Cost**: $60.07
- **Negotiated Rate Per Hour**: $101.00

### Administrative IV
- **Negotiated Rate**: $42.64
- **Overhead Multiplier Cost**: $70.78
- **Negotiated Rate Per Hour**: $119.00

### Administrative V
- **Negotiated Rate**: $49.09
- **Overhead Multiplier Cost**: $81.48
- **Negotiated Rate Per Hour**: $137.00

### In-House Copies
- **B/W - 8.5x11**: $0.09
- **B/W - 8.5x14**: $0.14
- **B/W - 11x17**: $0.20
- **Color - 8.5x11**: $0.90
- **Color - 8.5x14**: $1.20
- **Color - 11x17**: $2.00

### CAD Plots
- **Large**: $25.00
- **Full**: $10.00
- **Half**: $2.50
- **Per Hour**: $27.50

### GIS System
- **Per Hour**: $27.50

### Mileage
- **Current IRS Rate**

Subconsultants will be billed at cost plus 15%.

Outside direct costs for permit fees, reports, maps, data, reprographics, couriers, postage, and non-mileage related travel expenses that are necessary for the execution of the project and are not specifically identified elsewhere in the contract will be billed at cost.
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