

**HIGHLINE WATER DISTRICT
King County, Washington**

RESOLUTION 17-12-20D

RESOLUTION AUTHORIZING CONTRACT #17-60-42 WITH RH2 ENGINEERING, INC. FOR MCMICKEN WELL PUMP ANALYSIS RELATING TO PROJECT 18-4 MCMICKEN WELL REPAIRS

WHEREAS, in early 2017, the well pump performance started to decline, prompting the District to remove the existing pump and column. Upon removal, both the pump and column showed signs of unusual corrosion damage and neither are reusable. The pump and a portion of the column pipe also fell into the well riser during removal, slightly damaging the top of the riser. As a result, the well will require repair to be made usable again; and

WHEREAS, by passage of Resolution 17-12-20A, the Board approved the 2018 Capital Improvement Program, which includes Project 18-4 McMicken Well Repairs; and

WHEREAS, the District selected RH2 Engineering, Inc. (RH2) to design and construct Project 07-2 McMicken Well and Treatment Plant and was the original designer for the well pump; and

WHEREAS, the District requested a scope of work from RH2 to evaluate the existing well pump and column corrosion and to develop design for the well pump replacement; and

WHEREAS, the District's Engineer and General Manager have reviewed the December 2017 Scope of Work submitted by RH2 Engineering, Inc. and recommend approval of this resolution.

NOW, THEREFORE, BE IT RESOLVED:

1. The General Manager or designee is authorized to enter into Contract #17-60-42 with RH2 Engineering, Inc. (Attachment 1, incorporated herein by this reference), for a not-to-exceed amount of \$27,833.00.
2. The General Manager and/or the District's Legal Counsel are authorized to make minor changes to the agreement if required.

ADOPTED BY THE BOARD OF COMMISSIONERS of Highline Water District, King County, Washington, at an open public meeting held this **20th** day of **December 2017**.

BOARD OF COMMISSIONERS



Todd Fultz, President



Vince Koester, Commissioner



Kathleen Quang-Vermeire, Commissioner



Daniel Johnson, Secretary



George Landon, Commissioner

ATTACHMENT - 1

HIGHLINE WATER DISTRICT AGREEMENT FOR CONSULTING SERVICES

THIS AGREEMENT is entered into between **HIGHLINE WATER DISTRICT**, King County, Washington, a municipal corporation and special purpose district organized and existing under the laws of the State of Washington (hereafter referred to as "the District"), and **RH2 ENGINEERING, INC**, (hereafter referred to as "the Consultant") in consideration of the mutual benefits, terms and conditions hereinafter specified.

1. Scope of Consulting Services. Consultant shall provide consulting services to the District under the terms of this Agreement for the following Project: **McMicken Well Pump Analysis** ("Project"). The scope of services is more fully described on **Exhibit A** attached hereto and incorporated herein by this reference.
2. Compensation and Payment. District shall pay Consultant for the time and materials devoted to the Project as consideration for the performance of the services set forth on **Exhibit A**, not to exceed the amount of Twenty Seven Thousand Eight Hundred Thirty-Three and 00/100 Dollars (\$27,833.00). Such compensation shall be payable in the following manner:
 - 2.1 Consultant shall submit a detailed monthly billing for all services provided describing in reasonable and understandable detail the services rendered, fees charged and expenses incurred by Consultant during the previous month in accordance with a schedule of rates and charges set forth on **Exhibit(s) B and C**, including fees and expenses for additional services authorized by District as provided herein. District shall pay the invoice within sixty (60) days of receipt, except as to any disputed amounts.
 - 2.2 Upon District's failure to pay within sixty (60) days of receipt the undisputed amount set forth in any monthly billing submitted to District by Consultant, such unpaid balance will bear interest at the rate of 1% per month until the amount of such unpaid balance, plus interest thereon shall be paid in full.
 - 2.3 Consultant shall maintain accounts and records of fees billed and expenses incurred as described in this Section 2 in accordance with generally accepted accounting principles, and agrees to make such accounts, records and supporting documentation available to the District and its authorized representatives for inspection at mutually convenient times, both during the Project work and for three (3) years following the final payment for services rendered or termination of the Consultant's services under this Agreement.
3. Schedule of Work. Consultant shall commence the performance of its services under this Agreement upon receipt of notice to proceed from the District to do so and shall provide the services in accordance with the schedule on **Exhibit A**, subject to delays for causes beyond the reasonable control of Consultant or as otherwise agreed to by District.

4. Subcontractors. Consultant shall not subcontract or assign any portion of the work covered by this Agreement without the prior written approval of the District, such consent to be given in District's sole discretion. Subject to the provisions of the preceding sentence, this Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties hereto.
5. Independent Contractor. Consultant is an independent contractor and not an employee of the District. Consultant shall be responsible in full for payment of its employees, including insurance and deductions, and for payment to any subcontractors. No personnel employed by Consultant shall acquire any rights or status regarding the District. All of the services required hereunder shall be performed by Consultant or under its direction, and all personnel engaged therein shall be fully qualified under applicable state, federal and local laws to undertake the work performed by them.
6. Changes in Scope of Services. The District may require changes or modifications in the scope of services to be performed under this Agreement. Any such changes or modifications shall be in writing and signed by the parties to this Agreement. The compensation for the changes or modifications, whether a decrease or increase, shall be on the same terms and conditions as set forth in Paragraph 2 above or in a manner otherwise mutually agreed to by the parties.
7. Insurance. Consultant shall maintain throughout the performance of this Agreement the following types and amounts of insurance.
 - 7.1 Comprehensive vehicle liability insurance covering personal injury and property damage claims arising from the use of motor vehicles with combined single limits of Two Million Dollars (\$2,000,000).
 - 7.2 Commercial General Liability Insurance written on an occurrence basis with limits no less than Two Million Dollars (\$2,000,000) combined single limit per occurrence and Two Million Dollars (\$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; and
 - 7.3 Professional liability insurance (Errors and Omissions insurance) with limits no less than Two Million Dollars (\$2,000,000).

The insurance policies shall: (1) state 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; (2) be primary to any insurance maintained by the District, except as respects losses attributable to the sole negligence of the District; and (3) shall state that the District will be given 45 days prior written notice of any cancellation, suspension, non-renewal or material change in coverage.

The District shall be named as an additional insured on the Commercial General Liability Insurance policy with regard to work and services performed by or on behalf of the Consultant and a copy of the endorsement naming the District as an additional insured shall be attached to the Certificate of Insurance.

Before commencing work and services, Consultant shall provide to the District a Certificate of Insurance and required endorsements evidencing the insurance described above. The District reserves the right to request and receive a certified copy of all required insurance policies.

The above insurance limits do not constitute a limit on Consultant's liability to the District. Any payment of deductible or self-insurance retention shall be the sole responsibility of Consultant.

Consultant shall be solely responsible for the safety of its employees and subcontractors at the Project work site, and shall comply with all applicable federal, state and local statutes, regulations and ordinances regarding safety.

8. Indemnification. Consultant shall defend, indemnify and hold harmless the District, its elected and appointed officers, employees and agents and volunteers from and against all claims, injuries, damages, liabilities, losses of suits, including attorneys' fees and costs, arising out of or relating to Consultant's errors and omissions under this Agreement, except for injuries or damages caused by the sole negligence of the District. For the purposes of this indemnification, Consultant specifically and expressly waives any immunity granted under the Washington Industrial Insurance Act, Title 51 RCW. This waiver has been mutually negotiated and agreed to by the parties. If a court of competent jurisdiction determines that this contract is subject to RCW 4.24.115, Consultant's obligation to defend, indemnify and hold harmless the District, its officers, employees, agents and volunteers shall be limited to the extent of Consultant's negligence. The provisions of this Section shall survive the expiration of termination of this Agreement.
9. Ownership of Documents. Consultant agrees to return to District upon termination of this Agreement all documents, logs, drawings, photographs and other written or graphic material, however produced, received from District and used by Consultant in performance of its services hereunder. All documents, logs, drawings, specifications, designs, mylars, surveys, survey data, reports and other work product (collectively referred to as "Work Product") produced by Consultant in connection with the services rendered under this Agreement shall be owned by District upon payment to Consultant. District shall own all copyrights to such Work Product and Consultant agrees to assign all ownership rights to such Work Product to the District upon payment to Consultant. Reuse of any such Work Product by the District for other than a specific project or modification in use by the District of any of the Work Product without the Consultant's prior written approval shall be at the District's sole risk.
10. Standard of Care. Consultant warrants that its services shall be performed with the level of care, skill and competence of the consulting profession in accordance with the standard for professional services at the time the services are rendered.
11. Right of Entry. District shall provide for the right of entry of Consultant and its subcontractors and all necessary equipment in order to complete the services under this Agreement.

12. Compliance with Codes and Standards. Consultant's Professional Services shall be consistent with the standard of care and shall incorporate those publicly known federal, state and local laws, regulations, codes and standards that are applicable at the time Consultant renders its services.
13. Discovery of Hazardous Materials. The Parties recognize that unanticipated hazardous materials or suspected hazardous materials may be discovered on District's property or on property included as part of the site of work but not owned by District. The discovery of unanticipated hazardous materials may delay the Consultant's provision of the services required herein. In that event, the parties may extend the Contract Completion Date by mutual agreement.
14. Termination. This Agreement may be terminated by either Party upon five (5) days written notice for any reason. In the event of termination, Consultant shall be entitled to compensation for all services performed and costs incurred through and including the date of termination, except as to any disputed amounts.
15. General Provisions.
- 15.1 Notices. Any notice or demand desired or required to be given under this Agreement shall be in writing and deemed given when personally delivered, sent by facsimile machine, or deposited in the United States Mail (or with an express courier), postage prepaid, sent certified or registered mail, and addressed to the parties as set forth below or to such other address as either Party shall have previously designated by such a notice:
- | | |
|---|--|
| <u>To the District:</u> | <u>To the Consultant:</u> |
| Highline Water District
23828 30th Ave. S.
Kent, WA 98032 | RH2 Engineering, Inc.
22722 29th Drive SE, Suite 210
Bothell, WA 98021 |
| Attn: Matt Everett
General Manager | Attn: Dan Mahlum, P.E.
Associate Director |
- 15.2 Entire Agreement. This Agreement and its exhibit attachments contain the entire understanding between the District and Consultant relating to the consulting services which are the subject of this Agreement. This Agreement merges all prior discussions, negotiations, letters of understanding or other promises whether oral or in writing. Subsequent modification or amendment of this Agreement shall be in writing and signed by the parties to this Agreement.
- 15.3 Waiver. Waiver of any breach or default hereunder shall not constitute a continuing waiver or a waiver of any subsequent breach either of the same or of another provision of this Agreement.
- 15.4 No Third Party Rights. This Agreement is made only for the benefit of the District and Consultant and successors in interest and no third party or person shall have any rights hereunder whether by agency, as a third party beneficiary, or otherwise.

- 15.5 Jurisdiction/Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. Any suit to enforce or relating to this Agreement shall be brought in King County Superior Court, King County, Washington.
- 15.6 Severability. If any term, covenant or condition of this Agreement is held by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall remain in effect.
- 15.7 Effective Date. The effective date of this Agreement shall be the date that this Agreement has been signed by authorized representatives of both Parties hereto ("Effective Date").

RH2 ENGINEERING, INC.
("Consultant")

By _____
Typed Name Tony Pardi, P.E., PMP
Its President
Dated _____

HIGHLINE WATER DISTRICT
("District")

By _____
Typed Name Matt Everett
Its General Manager
Dated _____

EXHIBIT A
Scope of Work
Highline Water District
McMicken Well
Well Pump Analysis
December 2017

Background

Highline Water District (District) owns and operates the McMicken Well and Water Treatment Plant. The well pump was originally designed to produce 500 gallons per minute (gpm), with the ability to add additional stages to increase flow to 650 gpm in the future. In early 2017, the well pump performance started to decline, prompting the District to remove the existing pump and column. Upon removal, both the pump and column showed signs of unusual corrosion damage and neither are reusable. The pump and a portion of the column pipe also fell into the well riser during removal, slightly damaging the top of the riser. As a result, the well will require repair to be made usable again.

The District has requested that RH2 Engineering, Inc., (RH2) analyze the corrosion of the existing pump and column pipe, and the existing well damage, and develop a recommendation for a replacement pump and well repair. Options for replacing the pump are a vertical turbine pump, submersible pump, or submersible pump with a variable frequency drive (VFD). Materials of construction will be determined based on the results of the corrosion analysis.

This Scope of Work includes three (3) tasks: Task 1 – Existing Well Pump and Column Corrosion Analysis; Task 2 – Existing Well Evaluation and Repair; and Task 3 – Replacement Pump Selection.

RH2 is entitled to rely on the accuracy and completeness of any information, data, or materials supplied by the District or others in relation to this work. RH2 will perform the services described up to the amounts included in the included Fee Estimate. If additional effort is needed, that extra work will be mutually determined by the District and RH2.

Approach

Task 1 – Existing Well Pump and Column Corrosion Analysis

Objective: Analyze the previously existing well pump and column and recommend a solution for improved operation of the well. Summarize the findings in a technical memorandum.

Approach:

- 1.1 Collect pipe samples, review photos of the existing well pump, and review the corrosion of the column pipe and determine the likely causes of the corrosion.
- 1.2 Prepare a technical memorandum including: review of pipe samples and pump bowl conditions; analysis of the existing corrosion and identification of causes; and recommendation on future corrosion prevention options, including materials to use for replacement components.

Assumptions:

- *No significant changes have been made to the system since the McMicken Well since activation.*
- *No significant changes have been made to the pump or pump column upon removal from the McMicken Well.*

Provided by HWD:

- Assistance with any site visits, pictures, or existing system information.
- Review and comment on RH2's corrosion prevention recommendations.

RH2 Deliverables:

- Electronic PDF copy of technical memorandum summarizing RH2's analysis and recommendation.

Task 2 – Existing Well Evaluation and Repair

Objective: Review the well video recorded by PumpTech Inc. and provide a summary of current conditions. Recommend repairs or modifications to promote reliable operation of the well. Assist the District with identifying contractors to complete the repairs and preparing construction contract documents.

Approach:

- 2.1 Review well video recorded by PumpTech Inc. to assess the existing well conditions. *If the quality of the well video is insufficient to observe well condition details, RH2 will recommend an alternative well video contractor.*
- 2.2 Prepare a technical memorandum summarizing the observable well condition, recommending possible repairs, and estimating costs to repair or modify the well screen, riser, and tailpipe to promote reliable operation of the well.
- 2.3 Identify well contractors with capabilities and expertise to complete the recommended repairs, and support the District with preparing construction contract documents.

Assumptions:

- *The well video provided by PumpTech Inc. is sufficient, and an alternative will not need to be requested.*

Provided by HWD:

- Well video provided by PumpTech Inc.
- Review and comments of RH2's repair recommendations technical memorandum.
- Construction contract documents for well repairs.

RH2 Deliverables:

- Electronic PDF copy of technical memorandum summarizing well conditions and recommending repairs.

Task 3 – Replacement Pump Selection

Objective: Evaluate the McMicken Well pumping requirements and prepare a technical memorandum for the pump selection design.

Approach:

- 3.1 Review four (4) well pump replacement options: a vertical turbine pump with and without a VFD, and a submersible pump with and without a VFD. Perform a technical and economic analysis, and develop a recommendation for the District.
- 3.2 Prepare a technical memorandum summarizing the alternatives, costs, and recommendations for the selected pumping system.

Assumptions:

- *Desired flow rate is 500 gpm and no additional water rights are to be acquired in the future.*

Provided by HWD:

- Date and time-stamped Supervisory Control and Data Acquisition (SCADA) data for the McMicken Well, including well levels, pump intake and discharge pressures, and pump flow rates.
- Review and comments on RH2's pump selection memorandum.

RH2 Deliverables:

- Electronic PDF copy of technical memorandum summarizing selected pumping system.

EXHIBIT B

**Highline Water District
McMicken Well Pump Analysis
Fee Estimate**

Description		Total Hours	Total Labor	Total Expense	Total Cost
Classification					
Task 1	Existing Well Pump and Column Corrosion Analysis	45	\$ 10,138	\$ 253	\$ 10,391
Task 2	Existing Well Evaluation and Repair	17	\$ 3,566	\$ 89	\$ 3,655
Task 3	Replacement Pump Selection	81	\$ 13,450	\$ 336	\$ 13,786
McMicken Well Pump Analysis		143	\$ 27,154	\$ 679	\$ 27,833

**EXHIBIT C
RH2 ENGINEERING, INC.
2018 SCHEDULE OF RATES AND CHARGES**

RATE LIST	RATE	UNIT
Professional I	\$138	\$/hr
Professional II	\$153	\$/hr
Professional III	\$164	\$/hr
Professional IV	\$175	\$/hr
Professional V	\$191	\$/hr
Professional VI	\$203	\$/hr
Professional VII	\$219	\$/hr
Professional VIII	\$230	\$/hr
Professional IX	\$230	\$/hr
Technician I	\$100	\$/hr
Technician II	\$107	\$/hr
Technician III	\$132	\$/hr
Technician IV	\$140	\$/hr
Administrative I	\$69	\$/hr
Administrative II	\$81	\$/hr
Administrative III	\$96	\$/hr
Administrative IV	\$114	\$/hr
Administrative V	\$131	\$/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	\$0.535	price per mile (or Current IRS Rate)
Subconsultants	15%	Cost +
Outside Services	at cost	

Rates listed are adjusted annually.

Agenda Item No.: 5.4
Agenda Date: 12/20/17
Reviewed By: [Signature]

Subject: Resolution authorizing Contract #17-60-42 McMicken Well Pump Analysis with RH2 Engineering, Inc. relating to Project 18-4 McMicken Well Repairs

CATEGORY	
<i>Executive</i>	<input type="checkbox"/>
<i>Administrative</i>	<input type="checkbox"/>
<i>Engineering/Operations</i>	<input checked="" type="checkbox"/>

FINANCIAL						
<i>Expenditures?</i>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>
<i>Budgeted?</i>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
				<i>Amount:</i> \$ <u>27,833.00</u>		

Attachments:

1. Resolution 17-12-20D
2. Attachment 1 – Consultant Agreement #17-60-42 w/Exhibits A, B and C

Comments:

In early 2017, the well pump performance started to decline, prompting the District to remove the existing pump and column. Upon removal, both the pump and column showed signs of unusual corrosion damage and neither are reusable. The pump and a portion of the column pipe also fell into the well riser during removal, slightly damaging the top of the riser. As a result, the well will require repair to be made usable again. Project 18-4 is included in the 2018 Capital Improvement Program (Resolution 17-12-20A).

Staff recommends approval of this resolution.