



TOWN OF ELIZABETH

PATRICK G. DAVIDSON, TOWN ADMINISTRATOR

TO: Honorable Mayor, Mayor Pro Tem, and Board of Trustees
FROM: Patrick Davidson, Town Administrator
DATED: March 26, 2024
SUBJECT: Repairs to Well DA-1 and Well A-1

BACKGROUND

As the Board is aware, the Town maintains several water wells in the area to provide potable water to the residents of the Town. Two of the wells, Well DA-1 (Arapahoe) and Well A-1 (Lower Dawson) were off-line last Summer and Fall to determine the source of problems from the wells. The casing pumps were pulled and the casing examined, and it was determined that several repairs were going to be required to bring them back into production. Sufficient information is now available to determine how to proceed and will involve repairs to both wells. The cost for cleaning, repairs, and a new pump in the DA-1 well is approximately \$83,768.00. The costs for similar repairs to the Lower Dawson well is \$21,445.00. The total anticipated cost is \$105,213.00.

ANALYSIS

Repairs on water wells, and particularly pumps, call into question numerous variables that are often times unpredictable and not subject to regular budget processes. In general, pumps have a useful life of between 7 and 10 years, but even then, they are subject to additional factors such as water quality and scale buildup that may alter their serviceable life. We estimated the costs of these repairs at \$110,000.00 in the 2024 budget, subject to further investigation.

With the work to be performed on these wells, and the sizing of pumps, it is also important to take into consideration the building and development of the Town's water system as a whole. With the introduction of wells from Ritoro/Gold Creek into the system, it is also important to size the pumps in these older wells so as not to cause interference between the wells. As such, the pumps for Well DA-1 (Arapahoe) and Well A-1 (Lower Dawson) work in conjunction with, and not in competition with other wells in the system. The proposed repairs will assist in this regard.

STAFF RECOMMENDATION

Staff recommends entering into a contract with Applied Ingenuity, LLC to complete repairs on both wells.

BUDGET CONSIDERATION

The total cost for repairs to both wells is \$105,213.00. Funding was budgeted in FY2024 for this expenditure in Account 52-57-6000 and will come in approximately \$4,787.00 below budget.

ATTACHMENT(S)

Resolution 24R14

Scope of Work and Proposals between Applied Ingenuity, LLC and the Town of Elizabeth.

▪ PO Box 159, 151 S. Banner Street ▪ Elizabeth, Colorado 80107 ▪ (303) 646-4166 ▪ Fax: (303) 646-9434 ▪

www.townofelizabeth.org

RESOLUTION 24R14

A RESOLUTION AUTHORIZING THE DIRECTOR OF PUBLIC WORKS TO ENTER INTO AN AGREEMENT WITH APPLIED INGENUITY, LLC FOR REPAIRS TO ELIZABETH WELL A-1 and ELIZABETH WELL DA-1.

WHEREAS, the Town of Elizabeth maintains a municipal water system which includes wells commonly identified as Well A-1 and Well DA-1; and

WHEREAS, certain repairs are required of both wells to bring these wells back into production for the Town of Elizabeth; and

WHEREAS, the 2024 adopted budget anticipated these repairs to be required within the budget year, and a total sum of \$110,000.00 was earmarked for this expense; and

WHEREAS, the Town has received a Scope of Work and Proposal from Applied Ingenuity, LLC to complete repairs to both Well A-1 and Well DA-1 in a total amount not to exceed \$105,213.00.

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF ELIZABETH, COLORADO AS FOLLOWS:

SECTION 1. The Board of Trustees approve the Director of Public Works to enter into an agreement with Applied Ingenuity, LLC, for the repairs to Well A-1 and Well DA-1, as more fully set forth in attached **Exhibit A**, in an amount not to exceed one hundred five thousand, two hundred thirteen dollars (\$105,213.00).

PASSED, APPROVED, and ADOPTED this 26th day of March 2024, by the Board of Trustees of the Town of Elizabeth, Colorado, on first and final reading, by a vote of _____ for and _____ against.

Tammy Payne, Mayor

ATTEST:

Michelle M. Oeser, Town Clerk

Applied Ingenuity, LLC.
14920 Harvest Road
Brighton, Co. 80603
Ph. (303) 289-2280 Fax (303) 289-1026

Scope of Work and Proposal

Attn: Mr. Ken Timm
Date: March 1, 2024
Project: Well A-1
From: Scott Martin, Applied Ingenuity. LLC

Thank you for asking *Applied Ingenuity* to provide you with this proposal for cleaning and re-equipping your well per your request.

Scope of Work: *Applied Ingenuity* proposes the following scope of work and equipment for this project.

- Furnish the following equipment:

Motor.....	Centrilift 200 HP, 2300 v. 56 Amp
Seal.....	Centrilift GSB3
Pump.....	Centrilift 44 Stage Flex 80
Cable.....	Existing
Drop Pipe.....	Existing
PVC.....	Re-Use Existing
Level Probe.....	Existing
Airline.....	Existing
Check Valve.....	2) New 4 ½” Poppit
Misc.....	Banding, tape and HTH for disinfection etc.
Field Work.....	Bail well to TD. (4 hours included) Brush well with Chlorine solution (3 hours included). Install new pump system and install existing transducer, and start-up pump to system

Lump Sum, Materials & Labor:..... \$83,768.00

Terms and Conditions of Purchase

Freight: Will be added to equipment pricing, if applicable.

Taxes: No Federal, State or local use or sales taxes are included. These will be added where applicable at the time of invoicing.

Delays: *Applied Ingenuity* shall be liable for no penalty, charge or cost for delays in performance by Applied Ingenuity caused by weather, acts of God, shortage of materials or labor, strikes or circumstances outside the control of *Applied Ingenuity*.

Warranty: *Applied Ingenuity* shall extend the manufacturers normal warranty and shall not be liable for any charges and/or expenses beyond the normal warranty extended by the manufacturer.

Payment: Payment terms are net 30 days from date of invoice. Retainage is not allowed. A service charge of **2% PER MONTH (24% PER ANNUM)** shall be added on any past due accounts and if the account is not paid when due the buyer agrees to pay all reasonable costs of collection. Payment to *Applied Ingenuity* is not contingent on other payments to Purchaser by other third parties or upon any other thing or event other than receipt of the equipment.

Conditional Proposal: The proposal is conditioned upon *Applied Ingenuity* receiving written notice of its acceptance within 30 days from the date of the offer.

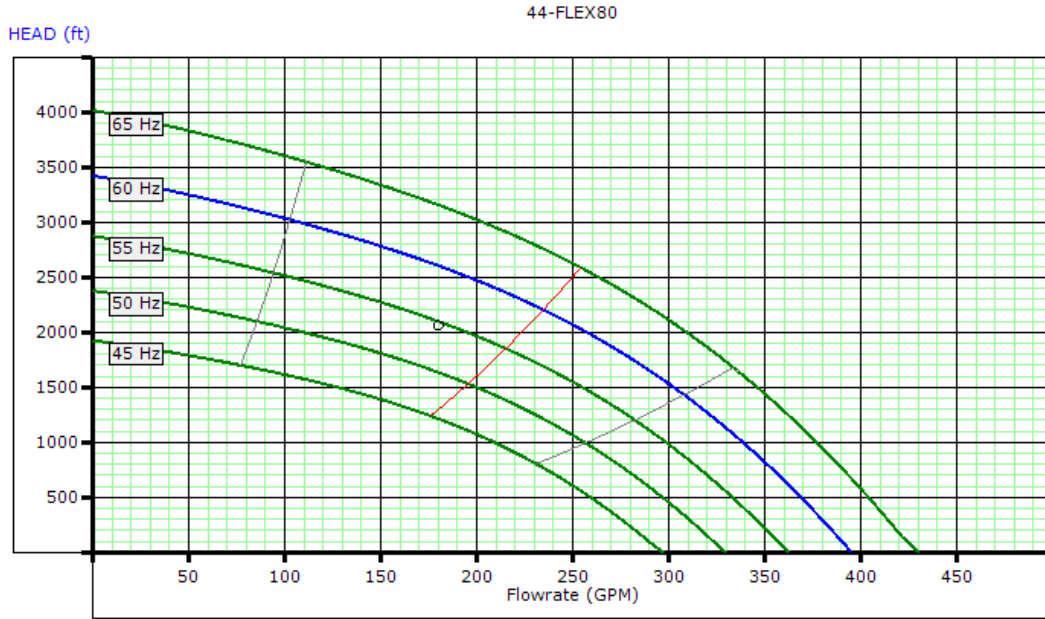
Bonding: Performance Bonding has not been included in the Purchase Order Agreement.

Attorneys Fees: In the event of a default under or breach of the terms of this contract, the defaulting party shall pay the non-defaulting party all costs incurred in enforcing the terms of this agreement, including court costs and attorney’s fees in a reasonable amount and including all costs of arbitration, if any, all fees and costs of arbitrators, all costs of discovery and depositions and copies, expert witness fees, travel expenses and any other cost or expense of litigation.

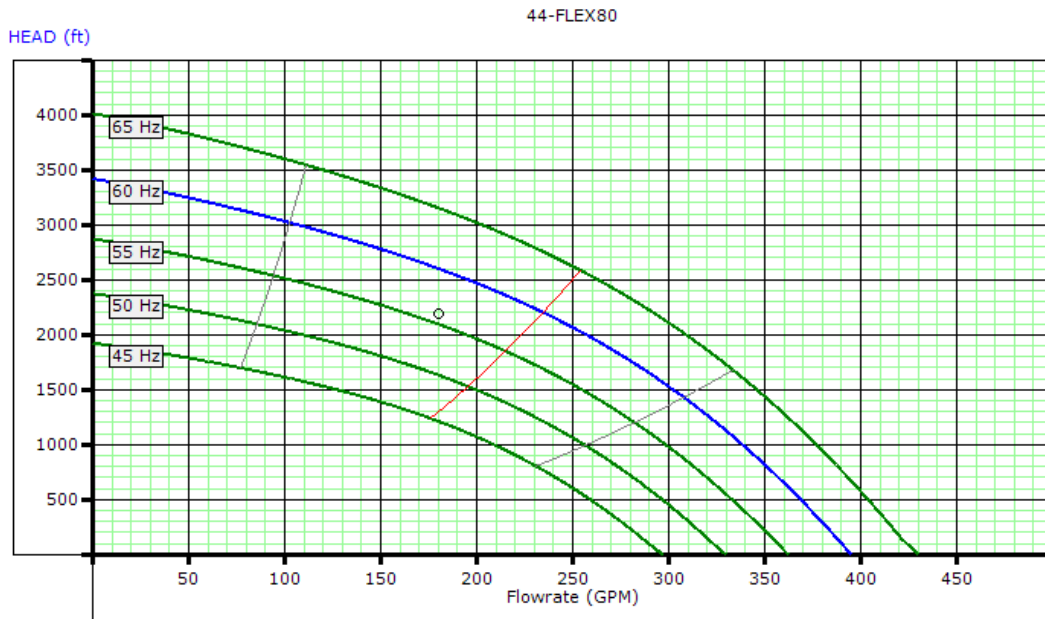
Thank you for the opportunity to quote this project. If *Applied Ingenuity, LLC* is selected for this work, please sign below, and return to *Applied Ingenuity, LLC* with your purchase order.

Accepted by:

_____ Date



180 GPM, 2063' TDH, 54.6 HZ , 122.9 BHP, 76% Pump efficiency



180 GPM, 2193' TDH, 56 HZ, 131.5 BHP, 75.6% Pump Efficiency

Applied Ingenuity, LLC.
14920 Harvest Road
Brighton, Co. 80603
Ph. (303) 289-2280 Fax (303) 289-1026

Scope of Work and Proposal

Attn: Mr. Ken Timm
Date: March 1, 2024
Project: Well DA-1
From: Scott Martin, Applied Ingenuity. LLC

Thank you for asking *Applied Ingenuity* to provide you with this proposal for cleaning and re-equipping your well per your request.

Scope of Work: *Applied Ingenuity* proposes the following scope of work and equipment for this project.

- Acid Clean:

Bailing.....Sand pump well to achieve approx. original total depth of well (6 hours included) .
Cleaning Service.....Tremie 95 Gallons of Coty Acid-Scaler into the well bore Surge for 3 hours.
Test PH and add acid necessary to bring PH to 2.
Surge for 3 hours.
Allow well to stabilize for 3 – 4 days.
Bail well to TD. 2 hours included in cost.

.Cleaning Cost.....\$10,912

- Furnish the following equipment:

Motor.....Hitachi 6” 15 HP 480 v.
Pump.....Grundfos 85S150-12
Cable.....Existing
Drop Pipe.....Existing
PVC.....Re-Use Existing
Level Probe500’ Dynotek Poly 200 psi
Airline.....Existing
Check Valve.....2) New 3” NPT Poppit
Misc.....Banding, tape and HTH for disinfection etc.

Field Work..... Color video Survey Well. Install new pump system and install transducer.

Lump Sum, Materials & Labor: \$21,445

Additional Materials

Labor for sand pump and surging...2 Man \$160 / Hour
Additional Acid.....\$55.00 / Gallon

Notes:

- 1) Acidization to be completed in conjunction with well re-equipping to allow for pump out of spent acid solution.

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Taxes: No Federal, State or local use or sales taxes are included. These will be added where applicable at the time of invoicing.

Delays: *Applied Ingenuity* shall be liable for no penalty, charge or cost for delays in performance by Applied Ingenuity caused by weather, acts of God, shortage of materials or labor, strikes or circumstances outside the control of *Applied Ingenuity*.

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Attorneys Fees: In the event of a default under or breach of the terms of this contract, the defaulting party shall pay the non-defaulting party all costs incurred in enforcing the terms of this agreement, including court costs and attorney's fees in a reasonable amount and including all costs of arbitration, if any, all fees and costs of arbitrators, all costs of discovery and depositions and copies, expert witness fees, travel expenses and any other cost or expense of litigation.

Thank you for the opportunity to quote this project. If *Applied Ingenuity, LLC* is selected for this work, please sign below, and return to *Applied Ingenuity, LLC* with your purchase order.

Accepted by:

_____ Date