



## Water & Sewer Department

City of Freeport  
337 S Hancock Ave  
Freeport, Illinois 61032  
Phone (815) 233-1686  
Facsimile (815) 232-1123

Thomas A. Kopanski  
Director of Utility Operations

**To:** Lowell Crow, City Manager  
**Cc:** Dennis Carr, P.E. Director of Public Works  
**From:** Tom Kopanski, Director of Utility Operations  
**Date:** 11 June 2018  
**Subject:** Discussion for Professional Services Agreement for Hancock Waste Water Treatment Plant (WWTP) Levee Station Instrumentation and Control

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**Background:** The City currently has a levee station at the Hancock WWTP, to pump plant effluent during times when the Pecatonica River is at an elevated level, and we are not able to use our normal method of gravity flow of our effluent to the river.

**Discussion:** With the install of the fourth levee pump, Water & Sewer requests a Professional Services Agreement (PSA) with Fehr-Graham to provide an upgraded control and monitoring system for the levee station. The scope of work includes: specifications of materials and equipment, design, wiring diagram for new control panels, commissioning and equipment start-up and a set of as-built drawings for final documentation. Some of the materials are eligible for a Commonwealth Edison energy efficiency rebate, since this is a new installation. The proposed amount of the PSA is \$22,008.00 of which \$3,668.00 of the amount is dedicated as a contingency amount (20%).

**Funding:** There is sufficient funding in the Water & Sewer budget for this task to be completed, and this project is scheduled to take place slightly ahead of the expected delivery date of the fourth motor and pump, which currently is expected in the October-November 2018 timeframe.

**Request:** Staff requests the approval from the City Council, to enter into a professional services agreement with Fehr-Graham, of Freeport, Illinois as it relates to an instrumentation and control upgrade to our Hancock WWTP Levee Station in an amount not to exceed \$22,008.00

**Attachments:**

Professional Services Agreement

# FEHR GRAHAM

ENGINEERING & ENVIRONMENTAL

June 6, 2018

Mr. Tom Kopanski  
Utility Director  
City of Freeport  
314 West Stephenson Street  
Freeport, Illinois 61032

**Re: Proposal for Electrical Engineering  
Programming and Control Professional Services  
City of Freeport Wastewater Treatment Plant Levee Station Upgrade**

Dear Mr. Kopanski,

Based on our recent discussions and visits to the project location, Fehr Graham is pleased to provide you with this proposal for Electrical Engineering Consultant Professional Services. We understand the project consists of identifying new equipment, provide programming, and upgraded controls at the Freeport Wastewater Treatment Plant Levee Station. The end goal of this contract is to provide an upgraded control and monitoring system for pumping capacity of the Wastewater Levee Station.

## Levee Station Scope of Services

### Equipment Specifications

Fehr Graham will provide equipment specifications to the City of Freeport for the following equipment upgrades at the Levee Station: VFD, Processors, Humane Machine Interface (HMI), Relays, Power Supplies, Terminations, Controls Cabinets, Level Controls, Wire for Motors, and Wire for Controls. Fehr Graham will provide the specifications and equipment bill of materials to the City of Freeport for purchasing all equipment to be used in the upgrade. Actual equipment purchasing and wiring, or installation labor are not included in this Scope of Service. It is agreed, the City of Freeport Water and Sewer shall supply all of the required equipment and labor necessary for building and installing the Levee upgrades not included as part of this Scope of Services.

### Electrical Design Schematics

Once the equipment has been agreed upon, established and ordered, Fehr Graham will provide professional CAD drawings for physical equipment installation by the City Water and Sewer technicians. It is assumed, from project discussions with both parties, the City of Freeport will supply a competent employee capable of building the controls and panels with minimal direction and supervision. Drawings supplied will include: HMI Terminations, Processor Terminations, VFD Terminations, Level Control Sensors, Float Controls, and SCADA Point Terminations. Once installations are final and complete, an updated CAD as-built record drawing reflecting all changes will be provided as a final deliverable to the City Water and Sewer Department.

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Mr. Tom Kopanski, Utility Director  
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### Control Programming (Processors, HMI, VFD)

Fehr Graham will provide programming to the following units on the control upgrade:

- Five (5) Processors - four (4) for installation, one (1) for spare
- Five (5) HMI - four (4) for installation, one (1) for spare
- Four (4) VFD - four (4) for installation

As a final control programming deliverable, Fehr Graham will provide a flash drive copy of the Processor and HMI control programming, along with the VFD parameter list.

### Commissioning and Equipment Startup

Fehr Graham will perform on-site startup and construction project management for the following equipment upgrades to the Levee Station:

- VFD's - with Schneider Electric's Review Securing an Additional 2-year Warranty
- Processors
- HMI
- Wiring of all Components
- Relay Components
- Level Sensors and Floats

Start up shall include City Water and Sewer employee review and training for future troubleshooting.

### Project Close Outs and Final Documentation

As part of the project close out requirements, the City shall be supplied with two (2) copies of the following information to the Levee Station upgrades:

- Electrical CAD As-built
- VFD Parameter List
- Program Schematic
- Wiring Schematic
- Internet Protocol Number for Ethernet
- Binder of Specifications and Parts, including Relays, Power Supplies, Breakers, Wiring, Controllers, HMI, and VFD's

### Exclusions

The following items are not included in the Scope of Services proposed here within:

- Equipment Purchase or Supply (to be done by City)
- Installation and Wiring of Controls/Equipment (to be done by City)
- Fees for Coordination with Strand Engineering or L.W. Allen (to be paid directly by City, if needed)

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Any of the above services can be performed as an additional cost to the project.

**Schedule**

Fehr Graham can initiate this project immediately upon agreement by the City of Freeport.

**Fees**

Based upon the information available at this time, we are prepared to complete the scope of work, as detailed above, in accordance with the following Schedule of Fees. Please note, these fees are based on a total of 165 working hours to complete the defined scope of work.

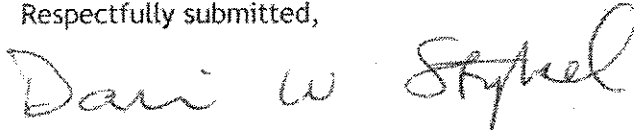
▪ Equipment Specifications	\$1,520
▪ Electrical Design	\$2,280
▪ Computer-Aided Design (CAD)	\$4,800
▪ Control Programming	\$5,700
▪ Commissioning and Startup	\$1,520
▪ Close Outs and Final Documentation	<u>\$2,520</u>
Electrical Engineering Fees	\$18,340
▪ 20% Contingency (if needed)	<u>\$3,668</u>
Total Schedule of Fees	\$22,008

**Authorization**

We trust the information we have provided is in line with your expectations. Should you like for us to proceed with this project, please execute the attached Agreement for Professional Services and return the Engineer's copy to my attention.

Fehr Graham is willing to commit the necessary resources to this project to provide timely and competent solutions to assure that this project moves forward. We look forward to working with you on this project.

Respectfully submitted,



Darin W. Stykel  
Sr. Engineering Technician

DWS:dld

**Attachment**

N:\Proposals\2018\Darin Stykel\City of Freeport\Levee Station Upgrade\S-12 - City of Freeport - 2018-06-06 - Levee Electrical Engineering and Controls Proposal.doc

**FEHR GRAHAM**  
ENGINEERING & ENVIRONMENTAL

June 6, 2018

Mr. Tom Kopanski  
City of Freeport  
314 W. Stephenson Street  
Freeport, IL 61032

Dear Mr. Kopanski,

Please find enclosed our Agreement for Professional Services as requested.

Please sign and return the Agreement to my attention. An additional copy may be retained for your records.

Sincerely,



Darin W. Stykel  
Senior Engineering Technician

DWS:dld

Enclosure

N:\Proposals\2018\Darin Stykel\City of Freeport\Levee Station Upgrade\5-12 - City of Freeport - 2018-06-06 - Levee  
Electrical Engineering and Controls Proposal Agreement.docx

**FEHR GRAHAM**  
ENGINEERING & ENVIRONMENTAL

**AGREEMENT  
FOR PROFESSIONAL SERVICES**

Client Mr. Tom Kopanski  
City of Freeport  
314 W. Stephenson Street  
Freeport, IL 61032  
  
815.235.8200

Description of Services:

City of Freeport - Programming and Control Professional Services - City of Freeport WWTP Levee Station Upgrade

Fehr Graham to provide Professional Services as detailed in our June 6, 2018 Proposal letter.

COST:

The fixed fee for performing the above services is \$22,008 as detailed below:

- Equipment Specifications..... \$1,520
- Electrical Design ..... \$2,280
- Computer-Aided Design (CAD) ..... \$4,800
- Control Programming ..... \$5,700
- Commissioning and Startup ..... \$1,520
- Close Outs and Final Documentation ..... \$2,520
- 20% Contingency (if needed)..... \$3,668

The attached General Conditions are incorporated into and made a part of this Agreement.

ACCEPTED AND AGREED TO:

I/we, the undersigned, authorize Fehr Graham to provide services as outlined above, and also agree that I/we are familiar with and ACCEPT THE TERMS OF THE ATTACHED GENERAL CONDITIONS.

CLIENT:

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date Accepted \_\_\_\_\_

CONSULTANT:

By  \_\_\_\_\_

Name Adam G. Holder

Title Principal

Date Proposed June 6, 2018

## GENERAL CONDITIONS TO AGREEMENT FOR PROFESSIONAL SERVICES

1. The Client requests the professional services of Fehr Graham hereinafter called "The Consultant" as described herein.
2. The Consultant agrees to furnish and perform the professional service described in this Agreement in accordance with accepted professional standards. Consultant agrees to provide said services in a timely manner, provided, however, that Consultant shall not be responsible for delays in completing said services that cannot reasonably be foreseen on date hereof or for delays which are caused by factors beyond his control or delays resulting from the actions or inaction of any governmental agency. Consultant makes no warranty, expressed or implied, as to his findings, recommendations, plans and specifications or professional advice except that they were made or prepared in accordance with the generally accepted engineering practices.
3. It is agreed that the professional services described in the Agreement shall be performed for Client's account and that Client will be billed monthly for said services. A 1½% per month service charge will be incurred by Client for any payment due herein and not paid within 30 days of such billing which is equal to an ANNUAL PERCENTAGE RATE OF 18%. Partial payments will be first credited to the accrued service charges and then to the principal.
4. The Client and the Consultant each binds himself, his partners, successors, executors, and assigns to the other party to this agreement and to the partners, successor, executors, and assigns of such other party in respect to this agreement.
5. The Client shall be responsible for payment of all costs and expenses incurred by the Consultant for his account, including any such monies that the Consultant may advance for Client's account for purposes consistent with this Agreement.
6. The Consultant reserves the right to withdraw this Agreement if not accepted within 30 days.
7. A claim for lien will be filed within 75 days of the date of an invoice for services (last day of services rendered) unless the account is paid in full or other prior arrangements have been made. All attorney fees incurred by the Consultant due to the filing of said lien or the foreclosure thereof shall be borne by the Client.

In the event suit must be filed by Consultant for the collection of fees for services rendered, Client will pay all reasonable attorney's fees and court costs.

If Client defaults in payment of fees or costs due under the terms of this Agreement and Consultant incurs legal expenses as a result of such failure, Client shall be responsible for payment for Consultant's reasonable attorney fees and costs so incurred.
8. The Consultant shall present, for the consideration of the Client, engineering and technical alternatives, based upon its knowledge and experience in accordance with accepted professional standards, with selection of alternatives and final decisions as requested by the client to be the sole responsibility of the Client.
9. Construction Phase Activities (When applicable) - In connection with observations of the work of the Contractor(s) while it is in progress the Consultant shall make visits to the site at intervals appropriate to the various stages of construction as the Consultant deems necessary in Agreement to observe as an experienced and qualified design professional the progress and quality of the various aspects of the Contractor(s)'s work. Based on information obtained during such visits and on such observation, the Consultant shall endeavor to determine in general if such work is proceeding in accordance with the Contract Documents and the Consultant shall keep the Client informed of the progress of the work.

The purpose of the Consultant's visits to the site will be to enable the Consultant to better carry out the duties and responsibilities assigned to and undertaken by the Consultant during the Construction Phase, and, in addition, by exercise of the Consultant's efforts as an experienced and qualified design professional, to provide for the Client a greater degree of confidence that the completed work of the Contractor(s) will conform generally to the Contract Documents and that the integrity of the design concept as reflected in the Contract Documents has been implemented and preserved by the Contractor(s). The Consultant shall not, during such visits or as a result of such observations of Contractor(s)' work in progress, supervise, direct or have control over Contractor(s)' work nor shall the Consultant have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected by Contractor(s), for safety precautions and programs incident to the work of Contractor(s) or for any failure of Contractor(s) to comply with laws, rules, regulations, ordinances, codes, or orders applicable to Contractor(s) furnishing and performing their work. Accordingly, the Consultant can neither guarantee the performance of the construction contracts by Contractor(s) nor assume responsibility for Contractor(s)' failure to furnish and perform their work in accordance with the Contract Documents.
10. Estimates of Fees - When fees are on a time and material basis the estimated costs required to complete the services to be performed are made on the basis of the Consultant's experience, qualifications, and professional judgment, but are not guaranteed. If the costs appear likely to exceed the estimate in excess of 20%, the Consultant will notify the Client before proceeding. If the Client does not object to the additional costs within seven (7) days of notification, the increased costs shall be deemed approved by the Client.
11. The Consultant is responsible for the safety on site of his own employees. This provision shall not be construed to relieve the Client or the Contractor(s) from their responsibility for maintaining a safe work site. Neither the professional services of the Consultant, nor the presence of his employees or subcontractors shall be construed to imply that the Consultant has any responsibility for any activities on site performed by personnel other than the Consultant's employees or subcontractors.
12. Original survey data, field notes, maps, computations, studies, reports, drawings, specifications and other documents generated by the Consultant are instruments of service and shall remain the property of the Consultant. The Consultant shall provide copies to the Client of all documents specified in the Description of Services.

Any documents generated by the Consultant are for the exclusive use of the Client and any use by third parties or use beyond the intended purpose of the document shall be at the sole risk of the Client. To the fullest extent permitted by law, the Client shall indemnify, defend and hold harmless the Consultant for any loss or damage arising out of the unauthorized use of such documents.

13. No claim may be asserted by either party against the other party unless an action on the claim is commenced within two (2) years after the date of the Consultant's final invoice to the Client.
14. If a Client's Purchase Order form or acknowledgment or similar form is issued to identify the agreement, authorize work, open accounts for invoicing, provide notices, or document change orders, the preprinted terms and condition of said Purchase Order shall be superseded by the terms hereof.
15. Standard of Care - Services performed by Consultant under this agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other representation expressed or implied, and no warranty or guarantee is included or intended in any report, opinion or document under this agreement.
16. Liability Insurance - Consultant will maintain such liability insurance as is appropriate for the professional services rendered as described in this Agreement. Consultant shall provide Certificates of insurance to Client, upon Client's request, in writing.
17. Indemnification and Limitation of Liability - Client and Consultant each agree to indemnify and hold the other harmless, including their respective officers, employees, agents, members, and representatives, from and against liability for all claims, costs, losses, damages and expense, including reasonable attorney's fees, to the extent such claims, losses, damages or expenses are caused by the indemnifying party's acts, errors or omissions.

The Client understands that for the compensation herein provided Consultant cannot expose itself to liabilities disproportionate to the nature and scope hereunder. Therefore, the Client agrees to limit Consultant's liability to the Client arising from Consultant's professional acts, errors or omissions, such that the total aggregate liability of Consultant shall not exceed \$50,000 or Consultant's total fee for services rendered on this Project, whichever is less.

18. Allocation of Risk - Consultant and Client acknowledge that, prior to the start of this Agreement, Consultant has not generated, handled, stored, treated, transported, disposed of, or in any way whatsoever taken responsibility for any toxic substance or other material found, identified, or as yet unknown at the Project premises. Consultant and Client further acknowledge and understand that the evaluation, management, and other actions involving toxic or hazardous substances that may be undertaken as part of the Services to be performed by Consultant, including subsurface excavation or sampling, entails uncertainty and risk of injury or damage. Consultant and Client further acknowledge and understand that Consultant has not been retained to serve as an insurer of the safety of the Project to the Client, third parties, or the public.

Client acknowledges that the discovery of certain conditions and/or taking of preventative measures relative to these conditions may result in a reduction of the property's value. Accordingly, Client waives any claim against Consultant and agrees to indemnify, defend, and hold harmless Consultant and its subcontractors, consultants, agents, officers, directors, and employees from any claim or liability for injury or loss allegedly arising from procedures associated with environmental site assessment (ESA) activities or the discovery of actual or suspected hazardous materials or conditions. Client releases Consultant from any claim for damages resulting from or arising out of any pre-existing environmental conditions at the site where the work is being performed which was not directly or indirectly caused by and did not result from, in whole or in part, any act or omission of Consultant or subcontractor, their representatives, agents, employees, and invitees.

If, while performing the Services set forth in any Scope of Services, pollutants are discovered that pose unanticipated or extraordinary risks, it is hereby agreed that the Scope of Services, schedule, and costs will be reconsidered and that this Agreement shall immediately become subject to renegotiation or termination. Client further agrees that such discovery of unanticipated hazardous risks may require Consultant to take immediate measures to protect health and safety or report such discovery as may be required by law or regulation. Consultant shall promptly notify Client upon discovery of such risks. Client, however, hereby authorizes Consultant to take all measures Consultant believes necessary to protect Consultant and Client personnel and the public. Furthermore, Client agrees to compensate Consultant for any additional costs associated with such measures.

19. In the event of legal action to construe or enforce the provisions of this agreement, the prevailing party shall be entitled to collect reasonable attorney fees, court costs and related expenses from the losing party and the court having jurisdiction of the dispute shall be authorized to determine the amount of such fees, costs and expenses and enter judgment thereof.
20. Termination - The obligation to provide further services under this Agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. In the event of any termination, Consultant will be paid for all services rendered to the date of receipt of written notice of termination, at Consultant's established chargeout rates, plus for all Reimbursable Expenses including a 15% markup.
21. Provision Severable - The unenforceability or invalidity of any provisions hereof shall not render any other provisions herein contained unenforceable or invalid.
22. Governing Law and Choice of Venue - Client and Consultant agree that this Agreement will be governed by, construed, and enforced in accordance with the laws of the State of Illinois. If there is a lawsuit, Client and Consultant agree that the dispute shall be submitted to the jurisdiction of the Illinois District Court in and for Stephenson County, Illinois.