

**CLERK'S CONTRACT and AGREEMENT COVER PAGE**

**Legistar File ID#:**

**Innoprise Contract #:** C09-0004

**Year:** 2009 +

**Amount:**

**Department:** Finance

**Contract Type:** Professional Engineering

**Contractors Name:** Greeley and Hansen

**Contract Description:** General Contract

Certifications were re-signed 2012

6/14/12 - Replacement Costs - Transmission Main \$4800

C16-0045 (2016-0173) Main Pump Station Evaluation \$49,290

MAYOR  
Daniel J. McLaughlin

VILLAGE CLERK  
John C. Mehalek

14700 S. Ravinia Avenue  
Orland Park, Illinois 60462  
(708) 403-6100  
www.orlandpark.org



VILLAGE HALL

TRUSTEES  
Kathleen M. Fenton  
James V. Dodge  
Patricia A. Gira  
Carole Griffin Ruzich  
Daniel T. Calandriello  
Michael F. Carroll

April 19, 2016

Ms. Nicloe B. Spieles, P.E., ENV SP  
Greeley and Hansen  
100 S. Wacker Drive, Suite 1400  
Chicago, Illinois 60606


RE: Signed Proposal dated March 28, 2016 – Main Pump Station Evaluation

Dear Ms. Spieles:

Enclosed is a copy of the Signed Proposal dated March 28, 2016 – Main Pump Station Evaluation. All terms of the Professional Engineering Services General Contract dated March 20, 2009, updated in 2012 shall apply.

If you have any questions, please call me at 708-403-6173.

Sincerely,

  
Contract Administrator

cc: Doug Medland  
Ryan Christopher, Greeley and Hansen



**GREELEY AND HANSEN**

100 S. Wacker Drive, Suite 1400  
Chicago, Illinois 60606  
p 312 558 9000  
f 312 558 1006  
www.greeley-hansen.com

March 28, 2016

Mr. Doug Medland  
Public Works Department  
Village of Orland Park  
15655 Ravinia Avenue  
Orland Park, IL 60462

Subject: Submittal of Main Pumping Station Evaluation Report Proposal

Dear Mr. Medland:

Greeley and Hansen is pleased to provide the enclosed fee proposal for the Main Pumping Station Evaluation Report. We are excited for the opportunity to continue to work with you and the Village of Orland Park staff on this project. Should you have questions regarding this submittal, or the project in general, please contact me at (312) 578-2467 or Ryan Christopher at (312) 578-2361.

Thank you,

Greeley and Hansen LLC

Nicole B. Spieles, P.E., ENV SP  
Managing Director Midwest Operating Group

Approved and Accepted by:

The Village of Orland Park

  
Paul G. Grimes, Village Manager

4/12/16  
Date



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Greeley and Hansen LLC

Nicole B. Spieles, P.E., ENV SP  
Managing Director Midwest Operating Group

**Village of Orland Park, Illinois**

**Main Pumping Station  
Evaluation Report**

**Scope of Engineering  
Services**

### **Project Background**

The Village of Orland Park Main Pumping Station provides potable water for village's water distribution system. The Main Pumping Station was originally constructed in 1985 and the majority of the equipment is nearing 30 years old.

Over the past few years, the electrical system has become harder to maintain and obtain spare parts while the main pumps have been rebuilt once already. In order to plan for future improvements, this report will evaluate replacement alternatives for electrical equipment and the main pumps in order to maximize current equipment, improve system efficiency, and mitigate risk of difficulties with aged equipment.

### **Project Tasks**

The Pump Station Evaluation would include the following tasks:

#### **Task 1- Electrical System Evaluation**

1. An evaluation of replacing the Switchboard and MCC, including full replacement versus interior rehabilitation with new components while keeping the station operational. The following will be included in the evaluation:
  - a) Comparison of equipment safety features which would bring the most benefit to Village Staff
  - b) Assessment of implementing a power monitoring system and tying to the existing SCADA system
2. An evaluation of the necessity and benefits of adding the following components:
  - a) A second utility transformer for added system redundancy
  - b) Auxiliary contacts in the utility automatic transfer switch to monitor which utility feed is being utilized and which utility feeds are available
3. Evaluation and recommendation of historization software for the pump station SCADA system.

#### **Task 2 - Pumping System Evaluation**

1. A flow analysis of the pump station and optimization recommendations to pumping operations
2. Based on the results of the flow and pump analysis, evaluate the benefits of installing VFDs on the pumps
3. Evaluate pump replacement versus rebuilding alternatives, including impacts to pump efficiency and life-cycle costs

#### **Task 3 – Develop Summary Documentation**

1. Provide a summary of the evaluations performed. Provide opinion of probable construction cost evaluation comparison tables for the various alternatives and recommendations for improvements to the Main Pumping Station.

#### **Task 4 - Progress Meetings**

1. Meet with Village Staff twice during the project to review the evaluation.
  - a) Meeting No. 1 will review the results of the evaluation and receive Village input and feedback prior to finalizing the report.
  - b) Meeting No. 2 will review the report and discuss recommendations to upgrade the pumping station.

**Village of Orland Park, IL  
Main Pumping Station Evaluation Report**

**Fee Summary  
Greeley and Hansen  
December 2015**

	Project Manager (RMC)	Civil Engineer	Electrical Engineer (JTB)	I&C Engineer (TP)	Electrical QA/QC (SS)	Word Processing (RR)	Total Hours
<b>Task 1 - Electrical System Evaluation</b>							
Task 1.1 - Evaluate MCC	2	0	40	0	8	0	50
Task 1.2 - 2nd Transformer and additional communication	0	0	16	4	8	0	28
Task 1.3 - Recommended SCADA Upgrades	0	0	4	16	2	0	22
Task 1.4 Site Visit	0	0	4	4	0	0	8
<b>Task 2 - Pumping System Evaluation</b>							
Task 2.1 - Flow Analysis and Optimization Recommendations	4	40	0	0	0	0	44
Task 2.2 - VFD Evaluation	4	30	8	0	4	0	46
Task 2.3 - Pump Replacement Evaluation	4	24	4	0	0	0	32
<b>Task 3 - Develop Summary of Evaluation</b>							
Task 3.1 - Develop Summary Report	4	24	16	8	4	4	60
<b>Task 4 - Progress Meetings</b>							
Task 4.1 - Prepare and Attend Progress Meeting No. 1	4	2	8	4	4	0	22
Task 4.2 - Prepare and Attend Progress Meeting No. 2	4	2	8	4	4	0	22
<b>Total Hours</b>	<b>26</b>	<b>122</b>	<b>108</b>	<b>40</b>	<b>34</b>	<b>4</b>	<b>334</b>

Hourly Rate \$	164 \$	114 \$	133 \$	227 \$	212 \$	104
Subtotal \$	4,264 \$	13,908 \$	14,364 \$	9,080 \$	7,208 \$	416
				Other Direct Costs (Travel)		50
				<b>Total \$</b>		<b>49,290</b>