

December 20, 2018

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

Subject: Elevated Storage Tank No. 5 Fiber Duct Extension

Dear Mr. Medland:

Greeley and Hansen is pleased to provide a fee proposal for the Elevated Storage Tank (EST) No. 5 Fiber Duct Bank Extension Project. Based on discussions with you and your staff, this proposal has been developed to meet the following objectives:

- Provide a new 4", directional bored, direct buried, HDPE fiber duct with 3, 1-1/4" innerducts from the Main Pumping Station (MPS) to the EST with handholes as needed.
- Utilize the proposed route of the Spur Two Secondary Water Transmission Line to near Wheeler Dr. and 73rd Ave. with an extension to the EST. Where there are instances of available parkway, the duct and handholes will be located in the grass in lieu of the street. Where located in the street, traffic-rated handholes will be specified.
- Provide a new fiber panel at the MPS to match existing and a new rack-mounted fiber panel at EST No. 5.
- Provide 96 count unshielded fiber. Handholes will be as manufactured by Highline, as requested by the Village.
- Specify testing of the fiber cable after installation and connection is complete.

Scope of Services

This project would include the following tasks:

- Task 1 – Design Engineering Services
- Task 2 – Bidding Services
- Task 3 – Office Services During Construction

Based on our understanding of the objectives, the following scope of services will be performed:

Task 1 – Design Engineering Services

This task will include preparation of contract documents including drawings and technical specifications for the EST No. 5 Fiber Duct Extension.

90% Design

Greeley and Hansen will prepare and submit 90% complete Contract Documents, 90% opinion of probable construction cost (Class 1), and construction schedule to the Village for review and final comment. Drawings from the Spur Two Main and MPS MCC Replacement projects will be utilized for this project to the extent possible. The Village will provide drawings from the EST No. 5 improvements project. New plan drawings from the Spur Two Main corridor to EST No. 5 and interior drawings of EST No. 5 will be created for this project. See Exhibit A for a preliminary list of anticipated drawings.

Contract Drawings will be prepared in electronic format using AutoCAD Civil 3D 2015 and Revit 2015. Plan sheets will be prepared for 24" x 36" sheets at a scale of 1"=40'. Technical specifications will be prepared in an adaptation of the Construction Specifications Institute (CSI) master format. It is assumed that bidding documents will be prepared by the Village.

In general, the scope of work for engineering disciplines is described below:

- Civil: Work will consist of but is not limited to coordination with the Spur Two Main pipeline design and surface restoration. A contracting strategy will be coordinated with the Spur Two Main project and reviewed by phone with the Village.
- Electrical: Work will consist of designing the electrical connections at the Main Pumping Station and EST No. 5 and the underground conduit. This discipline will also be responsible for project management
- Instrumentation and Controls (I&C): Work will consist of specifying the panels at the connection at the Main Pumping Station and EST No. 5, modifications to integrate the new panel and components to the existing SCADA system, and coordinating integration.

It is assumed that coordination with regulatory entities (FCC, etc.) and permits are not required for providing the above described services. It is also assumed that routing of the fiber duct from the Spur Two Main corridor to EST No. 5 can be accomplished without obtaining easements.

A 90% design review meeting will be held with the Village to finalize the design. The Village will provide written review comments within two weeks of receipt of the 90% submittal.

Deliverables: Electronic PDF and two hard copies of the 90% Contract Documents, 90% OPCC, and Construction Schedule for review and comment. Hard copies of the drawings will be on 11x17 paper and bound. 90% Design Review Meeting Agenda and Minutes to the Village for review and comment.

Final Design (Bid Set)

Greeley and Hansen will incorporate 90% review comments from Village to finalize and prepare Final/Bid Set documents for the Village. An updated OPCC (Class 1) will also be prepared and provided to the Village.

Deliverables: Electronic PDF and two hard copies of the Final/Bid Set Contract Documents and Final OPCC to the Village. Hard copies of the drawings will be on 11x17 paper and bound.

Task 2 – Bidding Services

Greeley and Hansen will perform the following services related to bidding of the Project construction contract:

- Answer bidders questions;
- Prepare addenda as required based on needed revisions to the bidding documents;
- Host a mandatory pre-bid meeting at Public Works Department; and
- Evaluate Bids and provide recommendation for award.

It is assumed that the Village will handle distribution of the contract documents through their financial department.

Task 3 – Construction Services

Following the Villages award of the contract, Greeley and Hansen will perform construction services for the project. The following scope items will be provided in this Task:

Pre-Construction Meeting

A Pre-Construction Meeting will be held with the Contractor, Village and Engineer to discuss access to the sites, hours of operation, contact information, construction schedule, coordination with Spur Two Main contractor, submittals, and pay request procedures.

Construction Observation Activities

The Project Manager and Electrical Engineer will visit the site once at the end of the project to review final installation, as-built conditions, and develop a punchlist. Progress meetings during construction will be held via teleconference with the contractor.

Construction Administration Activities

The following tasks will be performed as part of office services during construction:

- Process shop drawings and other submittals from the Contractor. See Exhibit B for a preliminary list of anticipated submittals.
- Respond to RFIs submitted by the contractor. It is assumed that 3 RFI responses will be prepared over the course of construction.
- Perform project closeout upon completion.

Schedule

It is anticipated that the Spur Two Main project will begin construction in April of 2020. The design schedule for the Fiber Optic Duct Extension will follow the design schedule for the Spur Two Main project so that the Village may bid and construct the two projects in the same timeframe.

Engineering Fees

Compensation for the above scope of services shall be made on a lump sum basis with a not-to-exceed fee of \$39,500. This scope and fee is based on an understanding of the goals identified herein. Any services not identified above will be billed as additional services on a lump sum basis as requested by the Village.

Thank you for the opportunity to work on this project. We are excited to continue to work with the Village of Orland Park and their staff. Should you have questions regarding this submittal, please contact me at (312) 578-2466.

Thank you,



Jay Bielanski, P.E.

Associate

Greeley and Hansen LLC

**Village of Orland Park, IL
Elevated Storage Tank No. 5 Fiber Duct Extension Project**

**Fee Summary
Greeley and Hansen
December 2018**

Tasks	QA/QC/Technical Advisor	Project Manager /Electrical Engineer	I&C Engineer	Civil Engineer	CADD	Word Processing	Total Hours
Hourly Rate	\$ 225	\$ 177	\$ 219	\$ 161	\$ 113	\$ 113	
Task 1 - Design Engineering Services							
Task 1A - 90% Design	4	32	24	24	60		144
Task 1B - Final Design	4	10	4	10	12		40
Total Hours	8	42	28	34	72	0	184
Subtotal Task 1	\$ 1,800	\$ 7,434	\$ 6,132	\$ 5,474	\$ 8,136	\$ -	\$ 28,976
Task 2 - Bidding Services							
Task 3A - Pre-Bid Meeting		4					4
Task 3B - Advertisement, Addenda, Review of Bids, etc.		4	4				8
Total Hours	0	8	4	0	0	0	12
Subtotal Task 2	\$ -	\$ 1,416	\$ 876	\$ -	\$ -	\$ -	\$ 2,292
Task 3 - Construction Services							
Task 4A - Pre-Construction Meeting		4					4
Task 4B - Construction Observation		6	6				12
Task 4C - Construction Administration		8	16				24
Total Hours	0	18	22	0	0	0	40
Subtotal Task 3	\$ -	\$ 3,186	\$ 4,818	\$ -	\$ -	\$ -	\$ 8,004
Sub-Total Task 1 - 3							\$ 39,272
Other Direct Costs							
Travel							\$ 200
Total							
							\$ 39,500

**VILLAGE OF ORLAND PARK
ELEVATED STORAGE TANK NO. 5 FIBER DUCT EXTENSION PROJECT**

**EXHIBIT A
Preliminary List of Contract Drawings**

Greeley and Hansen LLC
December 2018

Sheet No.	Dwg. No.	Drawing Title	Submittal	
			90%	Final
General Drawings				
-	i	Contract Document Cover Sheet	X	X
Electrical Drawings				
1	E1	MPS Plan	X	X
2	E2	Plan Sheet 1	X	X
3	E3	Plan Sheet 2	X	X
4	E4	Plan Sheet 3	X	X
5	E5	Plan Sheet 4	X	X
6	E6	Plan Sheet 5	X	X
7	E7	Plan Sheet 6	X	X
8	E8	Plan Sheet 7	X	X
9	E9	Plan Sheet 8	X	X
10	E10	Plan Sheet 9	X	X
11	E11	Plan Sheet 10	X	X
12	E12	Plan Sheet 11	X	X
13	E13	Plan Sheet 12	X	X
14	E14	Plan Sheet 13	X	X
15	E15	Plan Sheet 14	X	X
16	E16	Plan Sheet 15	X	X
17	E17	EST No. 5 Plan and Details	X	X
Total Drawings			18	18

**VILLAGE OF ORLAND PARK
ELEVATED STORAGE TANK NO. 5 FIBER DUCT EXTENSION PROJECT**

**EXHIBIT B
Preliminary List of Shop Drawings**

Greeley and Hansen LLC
December 2018

Submittal Name
HDPE Fiber Duct
Raceways and Boxes
Fiber Optic Cable
Handholes
Fiber Panel MPS
Fiber Panel EST
Fiber Test Reports