

## EXHIBIT A

### AGREEMENT FOR PROFESSIONAL SERVICES

between

CITY OF WEST LAFAYETTE

and

GREELEY AND HANSEN LLC

### SCOPE OF ENGINEERING SERVICES FOR AUBURN MEADOWS LIFT STATION AND FORCE MAIN

Engineer shall provide professional engineering services in connection with the wastewater lift station for the proposed Auburn Meadows subdivision. The lift station will be designed to incorporate the flows tributary to Auburn Meadows, but also with the flexibility to serve flows from Arbor Chase. This would allow the City to eliminate the Arbor Chase Lift Station by extending gravity sewer to the Auburn Meadows Lift Station. The proposed concept is consistent with the City's Collection System Master Plan. It is anticipated that the lift station will be designed and constructed using the Guaranteed Savings Contracting delivery method.

The scope of engineering services includes planning, design, guaranteed maximum price proposal assistance and construction administration for a new submersible lift station, including backup generator and approximately 5,200 feet of force main.

#### TASK 1.0 GENERAL

1.1 Progress Meetings. Conduct up to three (3) progress meetings with the City to review technical aspects of the project, project cost and schedule for a kick-off meeting, and 30%, and 60% submittals for the lift station and force main project. Prepare and distribute meeting notes within one (1) week of each meeting.

*Deliverables associated with this task include meeting notes from progress meetings.*

1.2 Data Collection and Review. Confirm project goals with the City. Collect relevant information on the service area, including land uses and zoning to project future wastewater flows, and available reports and drawings, including electronic base files, on the existing facilities and tributary sewers. Topographic survey information to be provided by the City.

*There is no deliverable associated with this task.*

#### TASK 2.0 PRELIMINARY DESIGN

2.1 Geotechnical Investigation. Arrange for and provide, through a subcontract, a geotechnical investigation for the design of the lift station and force main. The geotechnical investigation is based upon a total of seven (7) soil borings taken at the proposed lift station site and along the selected force main alignment.

*Deliverables associated with this task include a Geotechnical Report prepared by Patriot*

*Engineering and Environmental, Inc.*

2.2 Wastewater Flows and Lift Station Sizing. Estimate near-term (Auburn Meadows) and buildout wastewater flows (service area tributary to the lift station consistent with Master Plan) to determine lift station design capacity. Determine pump size and potential phasing to accommodate near-term and buildout conditions.

*Deliverables associated with this task include summarizing lift station flows for inclusion in the basis of design memorandum.*

2.3 Force Main Route and Sizing. Review up to two force main routes from the lift station to the Kalberer Road sewer and present recommended force main route to the City for approval. Size force main to convey near-term and buildout flows. Conduct hydraulic analyses for the force main to optimize pipe size versus pumping head to select best long-term option.

*Deliverable associated with this task include summarizing force main sizes for inclusion in the basis of design memorandum.*

2.4 Electrical. Summarize electrical requirements including the following:

- Define electrical service for new loads
- Size power systems at lift station
- Size new standby generator and transfer switch
- Define electrical lighting design criteria
- Support instrumentation installation with raceways
- Prepare preliminary one-line diagram for proposed lift station

*Deliverables associated with this task include preparation of the electrical design criteria for inclusion in the basis of design memorandum.*

2.5 Instrumentation and Controls. Summarize instrumentation and control requirements including remote monitoring needs and flow measurement. These include the following:

- Monitor pump status
- Monitor pump and motor temperature, leakage, etc.
- Monitor and control lift station alarm levels
- Monitor generator status
- Real-time flow measurement
- Telecommunications improvements for remote monitoring via the City's Supervisory Control and Data Acquisition (SCADA) System at the WRRF.

*Deliverables associated with this task include preparation of the instrumentation and control design criteria for inclusion in the basis of design memorandum.*

2.6 Preliminary Cost Opinion. Prepare a preliminary construction cost opinion for the project at 30 percent design.

*Deliverables associated with this task include preparation of a construction cost opinion.*

2.7 Basis of Design Memorandum. Prepare a basis of design memorandum to summarize the general design criteria for lift station and force main improvements. The memorandum will summarize: site location and accessibility; number, size and type of easements required; number and capacity of pumps; force main size; electrical, and instrumentation and control requirements; and a preliminary construction cost opinion.

*Deliverables associated with this task include preparation of basis of design memorandum at 30 percent design.*

### **TASK 3.0 DESIGN**

3.1 Drawings. Prepare Drawings for use, together with the Specifications, for soliciting a Guaranteed Maximum Price (GMP) proposal for a single construction contract.

*Deliverables associated with this task include 60 percent and 90 percent Drawings for review and comment and Final Contract Drawings.*

3.2 Specifications. Prepare Specifications for use, together with the Drawings, for soliciting a Guaranteed Maximum Price (GMP) proposal for a single construction contract. Engineers Joint Contract Documents Committee (EJCDC) General Conditions will be used. Standard Construction Specifications Institute (CSI) 16-section format will be used.

*Deliverables associated with this task include a 60 percent and 90 percent Specifications for review and comment and Final Specifications as described above.*

3.3 60 Percent Cost Opinion. Prepare a construction cost opinion for the project at 60 percent design.

*Deliverables associated with this task include a 60 construction cost opinion prior to receiving Contractor's GMP.*

3.4 Easement Requirements. Determine the number, size and type of easements that will be required for the project. Easement acquisition is not included in the scope of services.

*There is no deliverable associated with this task.*

3.5 Permit Assistance. Prepare project information submissions, including permit applications and review comments, to the following agencies:

- Indiana Department of Environmental Management (IDEM)
- Indiana Department of Natural Resources (IDNR)

All plan review and permitting fees will be paid by the City.

*Deliverables associated with this task include preparing and submitting permit applications to IDEM and INDR and responding to comments until approval is received.*

- 3.6 Erosion & Sediment Control Plan. Prepare Erosion and Sediment Control Plan in accordance with IDEM Rule 5 and the Tippecanoe County Soil and Water Conservation District (SWCD). Incorporate any Tippecanoe County SWCD review comments into the 60 percent drawings.

*Deliverables associated with this task include preparing an approvable Erosion & Sediment Control Plan to the Tippecanoe County SWCD.*

#### **TASK 4.0 GMAX PRICING PHASE**

- 4.1 GMP Proposal Inquiries. Respond to Proposer inquiries during the GMP pricing phase.

*Deliverables associated with this task include responding to Proposer inquiries.*

- 4.2 Addenda. Prepare addenda as needed to clarify the Contract Documents.

*Deliverables associated with this task include preparing and distributing addenda to Contract Documents as needed.*

#### **TASK 5.0 CONSTRUCTION ADMINISTRATION**

- 5.1 Submittals. Review up to 25 shop drawings, product submittals, equipment manufacturer's operation, lubrication, and maintenance manuals for compliance with the design intent as expressed in the Contract Documents.

*Deliverables include one set of approved submittals at completion of the project.*

- 5.2 Progress Meetings. Qualified representatives of the Engineer shall visit the site twice a month during construction progress meetings. Weekly construction conference calls will be held during the other 2 weeks of the month. The construction period is estimated to be 8 months. For purposes of estimating level effort, there will be 14 on-site progress meetings and 18 conference calls. Any comments and observations regarding the construction work shall be given to the Resident Project Representative and OWNER.

- 5.3 RFI/Clarifications. Respond to Contractor's request for interpretation and clarification for up to fifteen (15) RFI/Cs.

- 5.4 Supplementary Drawings. Prepare up to five (5) supplementary detailed drawings and specifications as needed for clarification of the Contract Drawings. Design changes are excluded from the scope of this task and will be provided upon separate authorization by OWNER.

- 5.5 Value Engineering. Review up to three (3) Contractor value engineering items and provide recommendations to the OWNER.

5.6 General Administration. Respond to inquiries from the Resident Project Representative, Contractor and OWNER relative to interpretation of the drawings and specifications, project schedule, pay applications, change orders and other matters concerning construction.

Collaborate with Contractor in review of cost savings measures identified during period of construction. Provide recommendation to OWNER regarding implementation of cost savings measure.

5.7 Start-up Assistance. Assist in the initial field check and start-up of the Project.

5.8 Record Drawings. Revise the original contract drawings to reference changes reported to the Resident Project Representative during construction. These record drawings shall incorporate changes shown on the Contractor's and the Resident Project Representative's record sets of drawings, supplementary drawings, shop drawings, and other records of field changes. Provide the OWNER with record drawings consisting of two full-size printed sets and two copies of electronic AutoCAD files.

City of West Lafayette, Indiana

Auburn Meadows Lift Station and Force Main

**Preliminary List of Drawings**

**General**

1	G01	Index, Location Map, Abbreviations and General Notes
2	G02	Existing Site Plan
3	G03	New Site Plan
4	G04	Sedimentation and Erosion Control Plan
5	G05	Sedimentation and Erosion Control Plan and Details

**Civil – Force Main**

6	C01	Plan and Profile
7	C02	Plan and Profile
8	C03	Plan and Profile
9	C04	Plan and Profile
10	C05	Plan and Profile
11	C06	Plan and Profile
12	C07	Plan and Profile
13	C08	Plan and Profile
14	C09	Plan and Profile

**Piping and Equipment – Lift Station**

15	M01	Plan and Section
16	M02	Plan and Section
17	M03	Miscellaneous Details

**Structural**

18	S01	General Notes
19	S02	Plans and Sections

**Electrical**

20	E01	One Line Diagram, Power Plan and Details
----	-----	--

City of West Lafayette, Indiana

Auburn Meadows Lift Station and Force Main

**Preliminary List of Specifications**

**BIDDING REQUIREMENTS**

**SECTION NUMBER**

Notice to Bidders	00100
Instructions to Bidders	00200
Bid Proposal Form	00300
Bid Bond Form	00410

**CONTRACT FORMS**

Agreement Form	00500
Performance Bond Form	00610
Payment Bond Form	00620
Maintenance Bond Form	00650
Notice to Proceed Form	00680

**CONDITIONS OF CONTRACT**

General Conditions	00700
Supplementary Conditions	00800
Wage Rates	Exhibit A

**TECHNICAL SPECIFICATIONS**

**DIVISION 1 – GENERAL REQUIREMENTS**

Summary of Work	01110
Change Order and Work Order Procedures	01250
Payments	01290
Contract Items	01291
Coordination and Meetings	01310
Progress Schedule	01325
Submittals	01330
Quality Control	01450
Construction Facilities and Temporary Controls	01500
Material and Equipment	01600
Lines and Grades	01722
Cutting and Patching	01732
Cleaning	01740
Operation and Maintenance	01783
Contract Close Out	01789
Training	01820

**DIVISION 2 – SITEWORK**

Site Clearing	02230
Shoring, Sheeting and Bracing	02251
Earth Excavation	02316
Backfilling	02317
Jacking, Augering and Mining	02445
Slope Protection and Erosion Control	02370
Laying and Jointing Buried Pipelines	02500
Buried Ductile Iron Pipe and Fittings	02505
Buried Polyvinyl Chloride (PVC) Pipe and Fittings	02507
Leakage Tests	02516
Chain Link Fencing and Gate	02762
Landscaping Work	02900

**DIVISION 3 – CONCRETE**

Concrete Formwork	03100
Concrete Accessories	03150
Concrete Reinforcement	03200
Cast-In-Place Concrete	03310
Grout	03600

**DIVISION 4 – MASONRY**

NOT USED

**DIVISION 5 – METALS**

NOT USED

**DIVISION 6 – WOOD AND PLASTICS**

NOT USED

**DIVISION 7 – THERMAL AND MOISTURE PROTECTION**

NOT USED

**DIVISION 8 – DOORS AND WINDOWS**

Access Doors	08310
--------------	-------

**DIVISION 9 – FINISHES**

Painting	09900
----------	-------

**DIVISION 10 – SPECIALTIES**

NOT USED

**DIVISION 11 – EQUIPMENT**

Submersible Pumping Equipment 11210

**DIVISION 12 – FURNISHINGS**

NOT USED

**DIVISION 13 – SPECIAL CONSTRUCTION**

NOT USED

**DIVISION 14 – CONVEYING SYSTEMS**

NOT USED

**DIVISION 15 – MECHANICAL**

Supports and Anchors	15060
Ductile Iron Pipe and Fittings	15106
Erecting and Jointing Interior Piping	15109
Valves	15110
Pressure Gauges	15124
Natural Gas Systems	15190

**DIVISION 16 – ELECTRICAL**

Basic Electrical Material and Methods	16050
Electrical Requirements for Shop Assembled Equipment	16055
Grounding	16060
Electrical Identification	16075
Electrical Testing Requirements	16080
Wire and Cables – 600 Volts and Below	16121
Electrical Raceway Systems	16130
Underground Electrical Distribution System	16132
Electric Utility Coordination and Requirements	16210
Electric Motors	16220
Packaged Engine Generator Systems	16230
Disconnect Switches	16411
Automatic Transfer Switches	16415
Panelboards	16443

**EXHIBIT B****AGREEMENT FOR PROFESSIONAL SERVICES**

between  
**CITY OF WEST LAFAYETTE**  
and  
**GREELEY AND HANSEN LLC**

**Level of Effort**

Task Description	Estimated Workhours					Totals
	Project Manager	MEPIC	Project Engineer	Designer / CAD Oper	Word Processor	
<b>1.0 GENERAL</b>						
1.1 Progress Meetings	16	0	24	0	0	40
1.2 Data Collection and Review	4	0	20	0	0	24
Subtotal - General	20	0	44	0	0	64
<b>2.0 PRELIMINARY DESIGN</b>						
2.1 Geotechnical Investigation	2	0	4	0	0	6
2.2 Wastewater Flows and Lift Station Sizing	4	0	8	0	0	12
2.3 Force Main Route and Sizing	2	0	8	8	0	18
2.4 Structural	1	0	4	0	0	5
2.5 Instrumentation & Control	2	8	4	4	0	18
2.6 Preliminary Cost Opinion	1	8	8	0	0	17
2.7 Basis of Design Memorandum	6	8	12	16	4	46
Subtotal - Preliminary Design	18	24	48	28	4	122
<b>3.0 DESIGN</b>						
3.1 Drawings	16	60	60	80	0	216
3.2 Specifications	8	40	24	0	8	80
3.3 60 Percent Cost Opinion	1	4	8	0	0	13
3.4 Easement Requirements	2	0	8	4	0	14
3.5 Permit Assistance	4	0	20	8	0	32
3.6 Erosion & Sediment Control Plan	4	0	16	16	0	36
Subtotal - Design	35	104	136	108	8	391
<b>4.0 GMAX PRICING PHASE</b>						
4.1 Proposer Inquiries	4	2	8	0	0	14
4.2 Addenda	4	8	8	8	0	28
Subtotal - GMAX Pricing Phase	8	10	16	8	0	42
<b>5.0 CONSTRUCTION ADMINISTRATION</b>						
5.1 Submittals	24	20	60	0	16	120
5.2 Progress Meetings and Site Visits	90	8	90	0	0	188
5.3 RFI/Clarifications	15	8	30	0	0	53
5.4 Supplementary Drawings	4	8	20	40	0	72
5.5 Value Engineering	16	8	40	8	0	72
5.6 General Administration	60	20	120	16	16	232
5.7 Startup Assistance	8	8	16	0	0	32
5.8 Record Drawings	4	4	8	24	0	40
Subtotal - Construction Administration	221	84	384	88	32	809
Totals	302	222	628	232	44	1428

**EXHIBIT B**

AGREEMENT FOR PROFESSIONAL SERVICES  
between  
CITY OF WEST LAFAYETTE  
and  
GREELEY AND HANSEN LLC

**Estimated Compensation**

1. Direct Labor:	<u>Workhours</u>		<u>Rate</u>	<u>Costs</u>
a. Project Manager	302	x	\$175	\$52,850
b. MEPIC	222	x	\$170	\$37,740
c. Project Engineer	628	x	\$110	\$69,080
d. Designer / CAD Operator	232	x	\$100	\$23,200
e. Word Processor	<u>44</u>	x	\$50	<u>\$2,200</u>
Subtotal	1428			<b>\$185,070</b>
2. Subconsultant Costs				
a. Geotechnical Investigation - Patriot Engineering and Environmental, Inc.				<b>\$11,000</b>
3. Other Direct Costs				
a. Travel <sup>(1)</sup>	1,430	Miles @	\$0.540 / day	\$772
b. Reproduction/Printing				<u>\$158</u>
Subtotal				<b>\$930</b>
4. Total Compensation				<b>\$197,000</b>

<sup>(1)</sup> Based on 11 trips at 130 miles per trip.