

**CCNA2018 WORK ORDER 44
AMENDMENT NO. 1**

Landfill Gas Flare Skid Improvements and Pipeline Extension

This Amendment No. 1 to Work Order Number 44 is entered into as of this 18th day of January, 2022, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services dated May 18, 2021, (the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Kimley-Horn and Associates, Inc. ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:

**BOARD OF COUNTY COMMISSIONERS
OF INDIAN RIVER COUNTY**

By: _____

By: _____

Peter D. O'Bryan, Chairman

Print Name: Kevin Roberson, PE

Title: Senior Vice President

BCC Approved Date: _____

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: _____

Deputy Clerk

Approved: _____

Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: _____

Dylan T. Reingold, County Attorney

AMENDMENT NO. 1

WORK ORDER NUMBER 44

LANDFILL GAS FLARE SKID IMPROVEMENTS AND PIPELINE EXTENSION

EXHIBIT A

SCOPE OF WORK

PROJECT UNDERSTANDING

Indian River County (County) Solid Waste Disposal District (SWDD) currently relies on a candlestick flare for landfill gas (LFG) emissions. The current blower flare skid was installed in 2004 and is in need of updating and reconfiguration for overall performance and efficiency, and to accommodate the renewable natural gas (RNG) project that is in development with the Indian River Eco District (IREC). In addition, SWDD is working with a third-party to install a leachate evaporation system that may utilize landfill gas as a fuel source. To accommodate the RNG and evaporation projects, modifications to the LFG skid and an extension to the LFG pipeline are required. The proposed modifications will improve the LFG collection and control system by providing reliable vacuum pressure to the gas wellfield and ensure continuous delivery of dry, pressurized LFG to the evaporation and RNG projects.

Kimley-Horn and Associates, Inc. (Consultant) has partnered with BioGas Engineering (BioGas) to design, permit and bid the proposed improvements. The BioGas proposal is incorporated herein and provided as Attachment 1 to this Scope of Work for informational purposes. The Consultant team will design, permit, and prepare a bid package for the proposed improvements as outlined in the following Scope of Services. Services during construction are not included in this Scope of Services.

SCOPE OF SERVICES

Task 1: Landfill Gas Pipeline Design

Subtask 1.1.3 has been amended as noted below.

Subtask 1.1 Preliminary Design Activities

1.1.1 Alignment for Survey Purposes

No changes.

1.1.2 Survey

No changes.

1.1.3 Geotechnical Data

The consultant will modify the subcontract with a local geotechnical engineering consultant who routinely performs work for the County on the SWDD property to perform additional services to collect geotechnical data in several additional

locations. The additional borings are required to supplement the previously budgeted hand auger samples, for structural purposes.

Subtask 1.2 Landfill Gas Pipeline Design

1.2.1 30 Percent Design
No changes.

1.2.2 60 Percent Design
No changes.

1.2.3 90 Percent Design and Final Bid Package
No changes

1.2.4 Bidding and Project Management
This task has been amended to accommodate minor changes in project scope and schedule.

Subtask 1.3 Coordination with Heartland

The coordination efforts with the Heartland design team have required more effort than initially anticipated. This task has been modified to accommodate additional efforts related to the original scope (as summarized immediately below).

The Consultant will work closely with the County and Heartland to review the overall design, equipment specifications and construction plan of the evaporation system. The Consultant will serve as the Owner's representative and will review the details of the system integration between the Heartland Facility equipment and SWDD's proposed landfill assets. This task will include the following activities:

- Allocate and assign key engineering resources (such as controls, mechanical, and process engineers) as necessary to support the project during critical design review stages;
- Review detailed drawings, calculations and other information submitted by the Heartland engineering team. These may include natural gas and LFG piping designs, mechanical piping drawings, electrical and controls designs for valves, instruments and other electrical equipment that could affect the landfill assets.
- Review the master project schedule and provide comments to SWDD regarding risks in achieving critical milestones by the developer. Please note that to do this, the Consultant will request monthly schedule updates from Heartland and provide comments as necessary.
- The Consultant will monitor the engineering and coordination performed by developer/contractor of the facility.
- The Consultant will review all design and equipment specifications regarding the integration of piping with the landfill system.
- Perform site visits if necessary (travel expenses to be invoiced as incurred for the necessary number of site visits).

Task 2: Landfill Gas Skid Design

Subtasks 2.5 and 2.6 have been modified to accommodate minor changes to the scope of the project.

Subtask 2.1 Request for Information

No changes.

Subtask 2.2 30 Percent Design

No changes.

Subtask 2.3 60 Percent Design

No changes.

Subtask 2.4 90 Percent Design and Final Bid Package

No changes.

Subtask 2.5 Bidding and Project Management

This task has been amended to provide for additional project management and coordination efforts.

Subtask 2.6 Permitting

The initial design assumed that no stormwater permitting (County or FDEP) would be required; however, due to the impacts from each of the ongoing projects (cumulatively), and potential modifications to the stormwater system and swale configuration in the vicinity of the evaporation system, the cumulative impacts appear to trigger the need for a modification to the County's Environmental Resource Permit (ERP). This task is being amended to provide coordination efforts for each project's drainage configuration, as well as coordination with the County's consultant responsible for the system-wide stormwater model (Geosyntec) to facilitate the permit modification. The permit modification and modeling updates will be performed by Geosyntec. The Consultant will compile the drawings (design by each projects' design team) and supporting documents needed to support an ERP permit modification (less modeling efforts).

Task 3 (NEW): SCADA Coordination and Electrical Considerations

As the ongoing projects have progressed through preliminary design, it has become apparent that an overall SCADA control system would be needed to monitor and operate the evaporation system, leachate storage tank (including pumps and water level transducers) and the updated landfill gas skid. The landfill is not currently equipped with a SCADA system, but the underlying fiber optic network needed to support a new SCADA system is in place. This task will include coordination with each project design team, the County's third-party SCADA integrator, and the equipment suppliers to facilitate the development of a SCADA system for the landfill. This task does not include design or integration services for the SCADA system.

The evaporation system/leachate storage tank will also require minor electrical improvements to support a new control panel and SCADA equipment. This task will include up to 24 hours of effort for the Consultant's electrical engineer to prepare drawings limited to this panel. The panel will include provisions for a portable generator receptacle.

EXHIBIT B

FEE SCHEDULE

The Consultant will provide these services in accordance with our Continuing Consulting Engineering Services Agreement for Professional Services dated May 18, 2021, by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida (“COUNTY”) and Kimley-Horn and Associates, Inc., (“Consultant”).

Amendment No. 1 will increase the original authorization by a lump sum fee of \$40,830, for an amended Work Order Total of \$267,250, as detailed below. Individual task amounts are informational purposes only. All permitting, application, and similar project fees will be paid directly by the County.

	Senior Project Manager	Senior Civil Engineer	Civil Engineer	Senior Designer	Accounting/ Admin	KHA Labor Subtotal	Subs		Amendment Total	Original Authorization	Amended Total
							Geotech				
Task 1 - Landfill Gas Pipeline Design	38	4	0	0	0	\$ 9,450	\$ 1,750		\$ 11,200	\$ 91,780	\$ 102,980
1.1 Preliminary Design Services											
1.1.1 - Alignment for Survey Purposes	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 3,320	\$ 3,320
1.1.2 - Survey	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 3,110	\$ 3,110
1.1.3 - Geotech	2	0	0	0	0	\$ 450	\$ 1,750		\$ 2,200	\$ 2,900	\$ 5,100
1.2 Landfill Gas Pipeline Design											\$ -
1.2.1 - 30% Design	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 8,420	\$ 8,420
1.2.2 - 60% Design	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 18,010	\$ 18,010
1.2.3 - 90% Design and Final Bid Package	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 9,890	\$ 9,890
1.2.4 - Bidding and Project Management	12	0	0	0	0	\$ 2,700	\$ -		\$ 2,700	\$ 21,330	\$ 24,030
1.3 Coordination with Heartland	24	4	0	0	0	\$ 6,300	\$ -		\$ 6,300	\$ 24,800	\$ 31,100
Task 2 - Landfill Gas Skid Design	36	10	46	8	4	\$ 18,620	\$ -		\$ 18,620	\$ 134,640	\$ 153,260
2.1 Request for Information	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 9,210	\$ 9,210
2.2 30% Design	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 37,200	\$ 37,200
2.3 60% Design	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 29,650	\$ 29,650
2.4 90% Design and Final Bid Package	0	0	0	0	0	\$ -	\$ -		\$ -	\$ 30,250	\$ 30,250
2.5 Bidding and Project Management	12	10	6	0	4	\$ 6,180	\$ -		\$ 6,180	\$ 26,380	\$ 32,560
2.6 Permitting	24	0	40	8	0	\$ 12,440	\$ -		\$ 12,440	\$ 1,950	\$ 14,390
Task 3 - SCADA Coordination and Electrical Considerations	16	32	0	2	0	\$ 11,010	\$ -		\$ 11,010	\$ -	\$ 11,010
TOTALS	90	46	46	10	4	\$ 39,080	\$ 1,750		\$ 40,830	\$ 226,420	\$ 267,250

ADDITIONAL SERVICES

The following services are not included in the Scope of Services for this project but may be required depending on circumstances that may arise during the execution of this project. Additional services may include, but not be limited to the following:

- Environmental Services (surface water impacts, gopher tortoise relocation, etc.)
- Construction Services
- Design of the RNG or evaporation system projects
- Design of any dehydration equipment or chiller skid slab
- Stormwater modeling
- Electrical design beyond the minimal effort outlined herein

EXHIBIT C

TIME SCHEDULE

The original schedule will be extended by approximately 60 days to accommodate weather delays related to the initial survey work, and design modifications.