EXHIBIT "F"
HIDALGO COUNTY

Professional Engineering Services for Geotechnical & Construction Material Testing
Agreement # C-24-0147-06-11
(ARPA-24-115-356)

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of the Professional Engineering Services Agreement No. C-24-0147-06-11, incorporated herein by reference, for the "[ARPA-24-115-356] - Geotechnical & Construction Material Testing Services - Emergency Management Facility" made by and between HIDALGO COUNTY, action herein by and through the Commissioner's Court, hereinafter called the "**Owner**," and RABA KISTNER, INC., hereinafter called "**Engineer**".

PART 1. SCOPE OF WORK
The purpose of this Work Authorization is for the **Engineer** to provide Geotechnical Engineering Services for the Remote Operations Centers.

The **Engineer** is to provide the scope of Services as required by the Agreement with Owner.

The scope of services to be provided by the **Engineer** is identified in **Attachment "A" –** *"Scope of Services to be provided by Engineer"* attached hereto and incorporated by reference.

PART 2. ESTIMATED COST
The estimated cost for services under this Work Authorization is **$16,854.00**.This amount is based upon the costs outlined in the **Attachment "B" –** *"Fee Proposal"* attached hereto and incorporated by reference.

PART 3. PAYMENT
Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the **Professional Engineering Services** Agreement No. C-24-0147-06-11 between the **Owner** and the **Engineer**.

PART 4. FUNDING
This Work Authorization No.1 shall be funded through funding source:
Account No 4-1290-441-12-115-356-5-730
Requisition Number _____ **(MUST BE INCLUDED AFTER CC APPROVAL)**

PART 5. PERIOD OF SERVICE
This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate **upon completion of the scopes of the Work Authorization, within the limits of Agreement No. C-24-0147-06-11, provided in this Work Authorization; or on**

(_____DATE_____). ***If applicable***: Engineer shall conform to the approved "Work/Project Schedule", attached hereto and incorporated by reference herein as **Attachment "C"**

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement No. C- 24-0147-06-11**

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by **Hidalgo County**.

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted and approved by the Hidalgo County Commissioners Court and hereby executed and effective as of the date indicated below.

APPROVED BY COMMISSIONERS' COURT ON JUNE 11, 2024.
Agenda Item No. 95607 **Executive Office: _____**

ENGINEER:
RABA KISTNER, INC.

_____
Katrin M. Leonard, P.E. Vice President

COUNTY:
COUNTY OF HIDALGO

_____
Hon. Richard F. Cortez, County Judge

ATTEST:

_____
Arturo Guajardo, Jr., County Clerk

LIST OF ATTACHMENTS:
Attachment "A" – *Scope of Services to be provided by Engineer*
Attachment "B" – *Fee Proposal*
Attachment "C" – *Approved Work/Project Schedule (If applicable)*

ATTACHMENT A

- Scope of Services -

RABA KISTNER
Raba Kistner, Inc.
800 East Hackberry
McAllen, TX 78501
www.rkci.com

P 956.682.5332
F 956.682.5487
TBPE Firm F-3257
TBAE Firm BR 3427

Proposal No. PMA24-033-00
June 5, 2024

Ms. Jireh Lira, CTCD
Contract Specialist III
County of Hidalgo Purchasing Department
2802 S. Business Highway 281
Edinburg, Texas 78539

Re: Proposal for Geotechnical Engineering Services
Proposed Hidalgo County Remote Operations Centers
1) 8066 N. Los Ebanos Road
Mission, Hidalgo County, Texas
2) 708 E. Edinburg Avenue
Elsa, Hidalgo County, Texas

Dear Ms. Lira:

On the basis of the electronic-mail attachment request received by our office via electronic-mail attachment from you on Monday, June 3, 2024, we thank you for selecting **RKI** to provide Geotechnical Engineering Services to Hidalgo County (CLIENT) for the above-referenced project. The broad objectives of our study will be to evaluate subsurface conditions at the subject sites, and to provide foundation and pavement design and construction recommendations for the proposed remote operations centers. Described in this letter are:

- our understanding of pertinent project characteristics;
- our proposed scope for field and laboratory study;
- our proposed scope for engineering evaluation and reporting;
- our tentative project schedule; and
- our project lump sum fee.

PROJECT DESCRIPTION

The facilities being considered in this study includes the design and construction of two remote operations centers. The remote operation centers will include a single-story, about 4,700 ft^2, operations building, and their associated canopies, parking, and driveway areas. The remote operations centers are planned to be located at the following sites:

1) 8066 N. Los Ebanos Road in Mission, Hidalgo County, Texas; and
2) 708 E. Edinburg Avenue in Elsa, Hidalgo County, Texas.

The proposed operations buildings are expected to create relatively light to moderate loads to be carried by the foundation systems, which are anticipated to consist of shallow foundation systems, while the canopies structures are anticipated to consist of shallow or deep foundation systems. The pavement systems are anticipated to consist of either flexible (asphalt) and/or rigid (concrete) pavements.

FIELD STUDY

On the basis of the information provided to us by the CLIENT, geologic evidence, and our experience with subsurface conditions in the vicinity of this site, we propose to perform the following drilling schedule.

Project Site	Proposed Structure	Number of Borings	Depth, ft. *
Mission Site	Operations Buildings	1	30
	Canopies	1	40
	Pavement Areas	4	10
Elsa Site	Operations Buildings	1	30
	Canopies	1	40
	Pavement Areas	4	10

* below the existing ground surface elevation, or auger refusal, whichever occurs first.

Borings will be located in the field utilizing tape and right angle measurements from existing benchmarks. Our scope of services does not include surveying of the boring locations. However, **RKI** recommends that the final boring locations be surveyed in the field by the CLIENT or their representative.

Samples will be taken using conventional split-spoon and/or Shelby tube sampling techniques in general accordance with applicable American Society for Testing and Materials (ASTM) standards. Representative portions of the samples will be sealed, identified, packaged, and transported to our laboratory for subsequent testing and classification.

Upon completion of drilling activities, water level readings, if applicable, will be recorded in the open boreholes and the boreholes will be backfilled using the auger cuttings generated during the drilling operations.

LABORATORY STUDY

Upon completion of the subsurface exploration, a general testing program will be designed to define the classification and engineering characteristics of the subsurface strata. The laboratory testing is anticipated to include moisture content tests, Atterberg Limits (plasticity) tests, unconfined compressive strength tests, dry unit weight determinations, sulfate content determinations, and grain size analyses. The laboratory testing will be performed in general accordance with applicable ASTM standards. For pavement design analysis, a California Bearing Ratio (CBR) test value will be assumed based on the laboratory test results performed to determine the classification and to estimate the strength characteristics of the subgrade soils.

ENGINEERING REPORT

The results of the field and laboratory phases of the study will be reviewed by our staff of engineers. The results of our review, together with the supporting field and laboratory data, will be presented in a written engineering report. Included therein will be recommendations concerning the design and construction of the foundation and pavement systems for the proposed remote operations centers. The Geotechnical Engineering Report may also include the following information and recommendations:

- A summary of the field and laboratory sampling and testing program;
- Boring logs and laboratory testing results;
- A review of the general sites conditions including a description of the sites, the subsurface stratigraphy, groundwater conditions, and the presence and condition of fill materials, if encountered.
- Foundation design considerations and recommendations, including:
  - expansive, soil-related movements using an empirical method for predicting the Potential Vertical Rise (PVR) developed by the Texas Department of Transportation (TxDOT);
  - methods for reducing expansive, soil-related movements to about 1 inch, which is the typical tolerance for ground-supported floor slabs in this region;
  - shallow and/or deep foundation recommendations;
  - available soil-bearing pressures;
  - settlement estimations, where applicable; and
  - groundwater considerations.
- Foundation construction considerations, including:
  - site drainage;
  - site preparation;
  - select fill materials;
  - shallow and/or deep foundation excavations;
  - potential reuse of on-site materials as select fill materials;
  - excavation considerations; and
  - fill placement compaction requirements.
- Seismic region condition evaluations.

Also included in the report will be general guidelines for the construction of pavements for the proposed pavement areas. These guidelines will be based on the results of classification testing completed on specimens from the pavement areas and on our experience with similar soils.

Since site grading plans can result in changes in the foundation and pavement subgrade conditions, final site grading plans will be helpful information in the preparation of engineering recommendations. In the

absence of final site grading information, we will prepare recommendations based on the existing ground surface elevations. Also, specific information concerning anticipated traffic loadings and frequencies for the pavement areas will be critical in the preparation of pavement recommendations.

The final report will be submitted only in a PDF format via electronic-mail attachment. Upon the CLIENT's request, we will reproduce the report in a spirally-bound copy.

TENTATIVE PROJECT SCHEDULE

Based on our present workload and weather permitting, it is anticipated that the field exploration phase of this study can begin within five working days of receiving written authorization to proceed, provided that the site is accessible to our truck-mounted drill rig and the CLIENT has supplied us with all available information regarding existing utilities and below-grade structures on site. The field exploration and laboratory testing phases of the study are expected to take approximately fifteen working days to complete. The engineering report will be submitted within an additional twelve working days following completion of the laboratory testing. The above schedule does not account for delays due to inclement weather. We will be pleased to provide the design team with verbal design information as the data becomes available.

LUMP SUM FEE

The total lump sum fee for the Geotechnical Engineering Study outlined herein is $16,854.00. Please refer to Attachment I for the breakdown of charges. Should unusual subsurface conditions be encountered in the field which indicate the desirability of significantly broadening the scope of the study, we will contact you to receive written authorization before proceeding with any additional work. Additional services will be billed on a unit basis.

RKI has been provided with a site plan of the project site by the CLIENT, illustrating the location of the proposed remote operations centers. It is our understanding that access to all boring locations for a conventional, truck-mounted drilling rig and underground utility clearance will be provided by the CLIENT prior to our field exploration services.

It should be noted that our study scope (and project fee) do not include plan review or earthwork and foundation excavation observations during the construction of the project. However, plan review and construction observation costs should be included in the project budget.

It should also be noted that our study scope (and project fee) do not include professional time or travel expenses for participation in multiple design team meetings. If these services are required, they will be billed at our standard billing rates for professional time plus expenses.

ACCEPTANCE

We appreciate the opportunity of submitting this proposal and look forward to working with Hidalgo County in the development of this project.

Please return one signed original of this contract to provide written authorization for our firm to perform work on the services outlined herein. Our invoices are due and payable upon receipt at P.O. Box 971037, Dallas, Dallas County, Texas 75397-1037.

Very truly yours,

RABA KISTNER, INC. Accepted By: _____
(Signature)

_____
(Typed or Printed Name)

Saul Cruz, EIT
Graduate Engineer

_____
(Title)

Katrin M. Leonard, P.E.
Vice President

_____
(Date)

Copies submitted: Above (1)

Attachment I

ATTACHMENT B

- Fee Schedule -

Attachment I

PROJECT TYPE: Geotechnical Engineering Services

PROJECT NAME: Proposed Remote Operations Centers - Hidalgo County

DATE: Wednesday, June 5, 2024

ATTN: Ms. Jireh Lira, CTCD
Contract Specialist III
Hidalgo County Purchasing Department
2802 S. Business Highway 281
Edinburg, Texas 78539

Project Site	Structures	Number	Depth	Soil	Total
Mission Site	Operation Buildings	1	30	30	***30***
	Canopies	1	40	40	***40***
	Pavement Areas	4	10	10	***40***
Elsa Site	Operation Buildings	1	30	30	***30***
	Canopies	1	40	40	***40***
	Pavement Areas	4	10	10	***40***
Total		12	160	535	***220***

FIELD OPERATIONS	**QUANTITY**		**UNIT PRICE**	**TOTAL**
Mobilization Truck-Mounted Rig, Drill Crew and Support	2	l.s.	$327.50	$655.00
Soil (Existing Ground Surface to 50 ft.)	220	l.f.	$15.50	$3,410.00
Field Logger Trip Charge	200	mile	$1.25	$250.00
Field Coordination - Field Engineer (E.I.T.)	4	hrs.	$156.00	$624.00
Field Coordination - Engineering Technician (Flagman)	8	hrs.	$67.00	$536.00
Field Logging Services - Engineering Technician	30	hrs.	$67.00	$2,010.00
			Field Operations Subtotal:	$7,485.00

LABORATORY TESTS	**QUANTITY**		**UNIT PRICE**	**TOTAL**
Plasticity Index (Atterberg Limits)	16	ea.	$114.50	$1,832.00
Amount Finer Than No. 200 Sieve	16	ea.	$77.50	$1,240.00
Unconfined Compression (Includes Unit Dry Weight) a) Soil Shelby Tube Specimens	4	ea.	$67.00	$268.00
Moisture Content	72	ea.	$14.00	$1,008.00
Sulfate Content	4	ea.	$122.00	$488.00
			Laboratory Testing Subtotal:	$4,836.00

ENGINEERING AND REPORT	**QUANTITY**		**UNIT PRICE**	**TOTAL**
Licensed Professional Engineer (P.E.)	4	hrs.	$172.00	$688.00
Staff Engineer, E.I.T.	20	hrs.	$136.50	$2,730.00
Draftsman	5	hrs.	$111.00	$555.00
Secretarial	8	hrs.	$70.00	$560.00
			Engineering and Report Writing Subtotal:	$4,533.00
			TOTAL:	$16,854.00

ATTACHMENT C

- Approved Work/Project Schedule -

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On the basis of the information provided to us by the CLIENT, geologic evidence, and our experience with subsurface conditions in the vicinity of this site, we propose to perform the following drilling schedule.

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