



L&G Engineering Laboratory

Construction Material Testing
Geotechnical Engineering

August 7, 2014

Commissioner Joseph Palacios
Attn: Maria "LuLu" Lucio
Hidalgo County, Precinct No. 4
1102 N. Doolittle Rd.
Edinburg, Texas 78539

RE: Work Authorization No. 6 – "Linn San Manuel Emergency Service Facility" In Hidalgo County Precinct No. Four (4)

Dear Ms. Lucio:

L&G Engineering Laboratory, L.L.C. (L&G), is providing you two (2) signed original work authorization forms for Construction Materials Testing Services for the referenced project as per your request. We are attaching the following in duplicate:

- Work Authorization No. 6
- The Scope of Services (Owner) (Attachment A)
- The Scope of Services (Engineer) (Attachment B)
- Work Schedule (Attachment C)
- Project Cost Proposal (Attachment D)

L&G Engineering Laboratory, LLC appreciates the opportunity to submit Work Authorization No. 6 and look forward to working with **Hidalgo County Pct. 4**. If I may be of any additional assistance or any additional information is required, please feel free to contact me at 956-565-0760 or 956-463-2008.

Sincerely,
L&G ENGINEERING LABORATORY, L.L.C.

Ricardo A. Gil
General Manager

Attachments

HIDALGO COUNTY
Professional Engineering Services
Contract # C-13-220-08-13
Work Authorization Form

WORK AUTHORIZATION NO. 6

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner’s Court**, hereinafter called the “**Owner**,” and, **L&G ENGINEERING LABORATORY, LLC** professional engineers of Texas, hereinafter called “**Engineer**”.

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Engineer** to provide **Construction Materials Testing Services for the “Linn San Manuel Emergency Service Facility” Project in Hidalgo County Precinct No. Four (4)**

The scope of services to be provided by the **Owner** is identified in **EXHIBIT “A” – Scope of Services to be provided by the Owner** attached hereto.

The scope of services to be provided by the **Engineer** is identified in **EXHIBIT “B” – Scope of Services to be provided by the Engineer** attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is \$ **49,207.32**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT “D”**.

PART 3. PAYMENT

Compensation and payment to the **Engineer** for the services established under this Work Authorization shall be made in accordance with Article/Part/Section **5.1** of the Agreement.

PART 4. FUNDING

This Work Authorization No. **6** shall be funded through funding source:
Account No. _____
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 scopes of the work authorization or (DATE)**.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by Hidalgo County Precinct No. 4 Commissioner Joseph Palacios as to content and detail of this Work Authorization No. #6.

HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 4:

BY: _____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on _____ as indicated below and effective as of _____ day of _____, 2014.

THE ENGINEER:
L&G ENGINEERING LABORATORY, LLC

THE OWNER:
HIDALGO COUNTY

By: Jacinto Garza, P.E.

Hon. Ramon Garcia, County Judge

ATTEST:

Arturo Guajardo Jr., County Clerk

LIST OF ATTACHMENTS

- ATTACHMENT "A" - Service to be provided by the Owner
- ATTACHMENT "B" - Services to be provided by the Engineer
- ATTACHMENT "C" - Work Schedule
- ATTACHMENT "D" - Cost Proposal

ATTACHMENT "A"
Scope of Services (Owner)

PROJECT: "Linn San Manuel Emergency Service Facility" In Hidalgo County Precinct No. Four (4)

SERVICES TO BE PROVIDED BY OWNER

The County of Hidalgo will provide **L&G Engineering Laboratory, LLC** with **Construction Documents, Plans and Specifications** for the "*Linn San Manuel Emergency Service Facility.*" **In Hidalgo County Precinct No. Four (4)**

ATTACHMENT "B"
Scope of Services (Engineer)

PROJECT: "Linn San Manuel Emergency Service Facility" In Hidalgo County Precinct No. Four (4)

GENERAL SCOPE OF WORK

The Scope of Work will entail providing **The County of Hidalgo** with **Construction Materials Testing Services**.

The Scope of Work is identified as follows:

- **Construction Materials Testing Services**

L&G Engineering Laboratory will furnish all equipment, materials, supplies, and incidentals as needed to perform the services required by this Contract: The work is as follows:

Construction Materials Testing Services

L&G Engineering Laboratory, L.L.C. will provide **The County of Hidalgo** with **Construction Materials Testing Services** for the "*Linn San Manuel Emergency Service Facility*" in **Hidalgo County Precinct No. Four (4)**

The services to be provided are as follows:

- Sampling and laboratory testing of soils and base materials proposed for use in the construction of Roads and Bridges to determine compliance of these materials with project plans and specifications.
- Field density testing of soils and base materials to ensure proper compaction as required by project plans and specifications.
- Field sampling and acceptance testing of fresh concrete, and Laboratory testing of hardened concrete to determine compliance with project plans and specifications. The following will not be inclusive of the Scope of Services unless it is otherwise requested:
 - Design Submittal Review
 - Trial Batch to Verify Concrete Design prior to placement
 - Concrete Batch Plant Inspection
- Field Compaction testing of Asphalt to ensure proper compaction during lay down operations.
- Field inspection, sampling and laboratory testing of Asphalt materials to determine their material properties and their compliance with project plans and specifications.
- Any additional laboratory testing as required/requested by **The County of Hidalgo and the project plans and specifications**.

- Provide accurate and timely reports to **The County of Hidalgo** and all/other recipients as designated by the County.

Engineering Services

L&G Engineering Laboratory, L.L.C. will provide an engineer's review of all test results to determine compliance with all project plans and specifications.

Scheduling of Services

L & G Engineering Laboratory is prepared to make a commitment to **The County of Hidalgo's** materials testing needs. L & G Engineering Laboratory makes every effort to respond to its clients as requests are received, and every effort will be made to keep scheduling conflicts to a minimum. As any other firm or business providing a service, L & G Engineering Laboratory prefers to schedule field and laboratory work with as much advance notice as possible. L & G Engineering Laboratory understands; however, that certain situations may occur when the Client may have a need for Materials Testing Services with as little or no advance notice. During these instances, L & G Engineering Laboratory will make every effort to dispatch personnel to the project within one (1) hour of the Client's request for services.

ATTACHMENT "C"
Work Schedule

PROJECT: "Linn San Manuel Emergency Service Facility" Project In Hidalgo County Precinct No. Four (4)

Work Schedule

L&G Engineering Laboratory will provide Hidalgo County Pct. # 4 with Construction Materials Testing Services as outlined in Contract Agreement C-13-220-08-13.

ATTACHMENT "D"
Cost Proposal

PROJECT: "Linn San Manuel Emergency Service Facility" In Hidalgo County Precinct No. Four (4)

See Attached

Attachment "D"
L&G Engineering Laboratory, LLC
Linn-San Manuel Emergency Services Facility
Prepared for Hidalgo County Precinct No. 4

<i>In-Situ Soils Testing-Laboratory-Building Subgrade / Parking Area</i>					
Standard Proctor	2	Ea.	\$202.78	\$405.56	<i>Building Footprint</i>
Atterberg Limits of Soils	2	Ea.	\$78.48	\$156.96	<i>Approx. 7,500 SF</i>
Material Finer #200	2	Ea.	\$65.49	\$130.98	
Test Report	2	Ea.	\$23.24	\$46.48	<i>New Parking Area</i>
Technician (Soils)	6	Hr.	\$47.14	\$282.84	<i>Approx. 24,000 SF</i>
Mileage (Trip Charge)	168	Mi.	\$0.52	\$87.36	
Subtotal:				\$1,110.18	
<i>In-Situ Soils Testing-Field -Building Subgrade / Parking Area</i>					
Field Density Test	15	Ea.	\$23.56	\$353.40	<i>Quantities</i>
Test Report	3	Ea.	\$23.24	\$69.72	<i>Based on 3</i>
Technician (Soils)	10	Hr.	\$47.14	\$471.40	<i>Visits to Project</i>
Mileage (Trip Charge)	252	Mi.	\$0.52	\$131.04	<i>To perform testing</i>
Subtotal:				\$1,025.56	
<i>Select Fill (Ty E Gr 4) Soils Testing / Slab - Laboratory</i>					
Standard Proctor	1	Ea.	\$202.78	\$202.78	<i>Based on 1 Select Fill</i>
Atterberg Limits of Soils	3	Ea.	\$78.48	\$235.44	<i>Samples</i>
Sieve Analysis	3	Ea.	\$58.85	\$176.55	<i>2 Additional Atterberg Limits &</i>
Technician (Soils)	8	Hr.	\$47.14	\$377.12	<i>Sieve Analysis for Field Verification</i>
Mileage (Trip Charge)	168	Mi.	\$0.52	\$87.36	<i>of Select Fill Materials</i>
Test Report	4	Ea.	\$23.24	\$92.96	
Subtotal:				\$1,172.21	
<i>Select Fill (TY E Gr 4) Soils Testing-Field Testing and Monitoring</i>					
Field Density Test	12	Ea.	\$23.56	\$282.72	<i>Based on 2 - 6" Lifts</i>
Test Report	2	Ea.	\$23.24	\$46.48	<i>A Minimum of 4 Compaction</i>
Technician (Soils)	6	Hr.	\$47.14	\$282.84	<i>Test Per Lift or every</i>
Mileage (Trip Charge)	168	Mi.	\$0.52	\$87.36	<i>3000 Square Feet</i>
Subtotal:				\$699.40	<i>4 tests per lift</i>
<i>Concrete Reinforcement Steel Placement Verification (Concrete Masonry Units)</i>					
Test Report	10	Ea.	\$23.24	\$232.40	
Technician (Concrete)	30	Hr.	\$60.18	\$1,805.40	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	<i>Verification Inspection</i>
Subtotal:				\$2,474.60	<i>assuming 10 grout placements</i>
<i>Concrete Placement - Floor Slabs-Main Building-Covered Parking</i>					
Air Content(Pressure Method)	4	Ea.	\$23.51	\$94.04	<i>Assuming</i>
Test Report	4	Ea.	\$23.24	\$92.96	<i>4 Placements</i>
Technician (Concrete)	12	Hr.	\$60.18	\$722.16	<i>for a total of 200 cy</i>
Mileage (Trip Charge)	336	Mi.	\$0.52	\$174.72	<i>1 set Every 50 as</i>
Subtotal:				\$1,083.88	<i>per General Notes</i>
Cyl. Spec. Prep, Hold, Cure	16	Ea.	\$11.83	\$189.28	<i>4 Cylinders to be</i>
Comp. Str. Of Cyl. Specimen	16	Ea.	\$15.68	\$250.88	<i>Tested for Compression</i>
Test Reports (7 and 28 day)	8	Ea.	\$23.24	\$185.92	<i>at a Frequency of Two 7 Day</i>
Technician (Concrete)	16	Hr.	\$60.18	\$962.88	<i>and Two 28 Day</i>
Mileage (Trip Charge)	336	Mi.	\$0.52	\$174.72	
Subtotal:				\$1,763.68	

Concrete Placement - Misc. Concrete -Sidewalks-Canopies-Curb and Gutter					
Air Content(Pressure Method)	10	Ea.	\$23.51	\$235.10	<i>Assuming 10 Placements</i>
Test Report	10	Ea.	\$23.24	\$232.40	
Technician (Concrete)	30	Hr.	\$60.18	\$1,805.40	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
			Subtotal:	\$2,709.70	
Cyl. Spec. Prep, Hold, Cure	40	Ea.	\$11.83	\$473.20	<i>Quantities based on sample pickup an deliver to laboratory for Compression Testing</i>
Comp. Str. Of Cyl. Specimen	40	Ea.	\$15.68	\$627.20	
Test Reports (7 and 28 day)	20	Ea.	\$23.24	\$464.80	
Technician (Concrete)	40	Hr.	\$60.18	\$2,407.20	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
			Subtotal:	\$4,409.20	
Concrete Masonry Unit Quality Verification					
Masonry Unit Prep./Compressive Strength	1	Sets	\$228.98	\$228.98	
Masonry Unit SPG/ABS/UNIT WT.	1	Sets	\$228.98	\$228.98	
Technician (Concrete)	8	Hr.	\$60.18	\$481.44	
Test Report	2	Ea.	\$23.24	\$46.48	
			Subtotal:	\$985.88	
Concrete Masonry Unit - Grout Testing					
Air Content(Pressure Method)	10	Ea.	\$23.51	\$235.10	
Test Report	10	Ea.	\$23.24	\$232.40	
Technician (Concrete)	30	Hr.	\$60.18	\$1,805.40	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
			Subtotal:	\$2,709.70	
Grout Prism Prep, Hold, Cure, Comp Str.	30	Ea.	\$32.74	\$982.20	<i>Assuming 10 placements</i>
Test Reports (7 and 28 day)	20	Ea.	\$23.24	\$464.80	
Technician (Concrete)	40	Hr.	\$60.18	\$2,407.20	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
			Subtotal:	\$4,291.00	
Concrete Masonry Unit - Mortar Testing					
Test Report	10	Ea.	\$23.24	\$232.40	
Technician (Concrete)	30	Hr.	\$60.18	\$1,805.40	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
			Subtotal:	\$2,474.60	
Mortar Cube, Prep, Cure, Comp Str.	30	Ea.	\$32.00	\$960.00	<i>Assuming 10 placements</i>
Test Reports (7 and 28 day)	20	Ea.	\$23.24	\$464.80	
Technician (Concrete)	40	Hr.	\$60.18	\$2,407.20	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
			Subtotal:	\$4,268.80	
Welding and Bolt Torque Inspection					
Engineering Specialist	16	Ea.	\$117.75	\$1,884.00	<i>Assuming 4 Visits to perform Welding and/or Bolt Torque Inspection</i>
Mileage (Trip Charge)	336	Mi.	\$0.52	\$174.72	
Test Report	4	Ea.	\$23.24	\$92.96	
			Subtotal:	\$2,151.68	
Treated In-Situ Soils Testing-Laboratory-Pavement Subgrade					
Standard Proctor	1	Ea.	\$202.78	\$202.78	<i>Quantity Based On 1 visit to obtain sample for laboratory testing</i>
Atterberg Limits of Soils	1	Ea.	\$78.48	\$78.48	
Test Report	1	Ea.	\$23.24	\$23.24	
Technician (Soils)	3	Hr.	\$47.14	\$141.42	
Mileage (Trip Charge)	84	Mi.	\$0.52	\$43.68	
			Subtotal:	\$489.60	
Treated In-Situ Soils Testing-Field -Pavement Subgrade					
Field Density Test	10	Ea.	\$23.56	\$235.60	<i>Quantity Based On 2 site visits to perform compaction testing</i>
Test Report	2	Ea.	\$23.24	\$46.48	
Technician (Soils)	6	Hr.	\$47.14	\$282.84	
Mileage (Trip Charge)	168	Mi.	\$0.52	\$87.36	
			Subtotal:	\$652.28	

<i>Site Select Fill Soils Testing-Laboratory</i>					
Standard Proctor	1	Ea.	\$202.78	\$202.78	<i>Quantity Based in 1 site visit to obtain sample</i>
Atterberg Limits of Soils	1	Ea.	\$78.48	\$78.48	
Material Finer #200	1	Ea.	\$65.49	\$65.49	
Technician (Soils)	3	Hr.	\$47.14	\$141.42	
Test Report	1	Ea.	\$23.24	\$23.24	
Mileage (Trip Charge)	84	Mi.	\$0.52	\$43.68	
			Subtotal:	\$555.09	
<i>Site Select Fill Soils -Field Testing and Monitoring</i>					
Field Density Test	10	Ea.	\$23.56	\$235.60	<i>Quantities based on 2 visits to perform testing</i>
Test Report	2	Ea.	\$23.24	\$46.48	
Technician (Soils)	6	Hr.	\$47.14	\$282.84	
Mileage (Trip Charge)	168	Mi.	\$0.52	\$87.36	
			Subtotal:	\$652.28	
<i>Flexible Base (Caliche) Parking Areas- Testing-Laboratory</i>					
Standard Proctor	1	Ea.	\$202.78	\$202.78	<i>Quantity based on 1 site visit to obtain sample</i>
Atterberg Limits of Soils	1	Ea.	\$78.48	\$78.48	
Sieve Analysis (Dry)(4 Sieve)	1	Ea.	\$58.85	\$58.85	
Texas Wet Ball Mill	1	Ea.	\$229.11	\$229.11	
Technician (Soils)	4	Hr.	\$47.14	\$188.56	
Test Report	2	Ea.	\$23.24	\$46.48	
Mileage (Trip Charge)	84	Mi.	\$0.52	\$43.68	
			Subtotal:	\$847.94	
<i>Flexible Base (Caliche)Parking Areas-Field Testing and Monitoring</i>					
Field Density Test	8	Ea.	\$23.56	\$188.48	<i>Quantities based on three (3) visits to perform in-place testing</i>
Test Report	2	Ea.	\$23.24	\$46.48	
Technician (Soils)	4	Hr.	\$47.14	\$188.56	
Mileage (Trip Charge)	12	Mi.	\$0.52	\$6.24	
			Subtotal:	\$429.76	
<i>Hot Mix Asphalt Paving-Parking Area</i>					
Ext. Sieve Analysis/Asph Content	2	Ea.	\$229.04	\$458.08	<i>Quantities based on three site visits to perform testing</i>
Density of Asphaltic Cores	3	Ea.	\$71.96	\$215.88	
Asphalt Rolling Patterns	6	Ea.	\$39.27	\$235.62	
Coring/ACP Thickness	8	Ea.	\$65.49	\$523.92	
Technician (Asphalt)	12	Hr.	\$60.18	\$722.16	
Mileage (Trip Charge)	252	Mi.	\$0.52	\$131.04	
Test Report	3	Ea.	\$23.24	\$69.72	
			Subtotal:	\$2,356.42	

Estimated Field and Laboratory Test Fees			\$39,313.44
Engineering Specialist (Report Review)(Hr.)	36	\$117.75	\$4,239.00
Engineer-Principal (Report Review)(Hr.)	36	\$157.08	\$5,654.88
Estimated Materials Testing Total			\$49,207.32