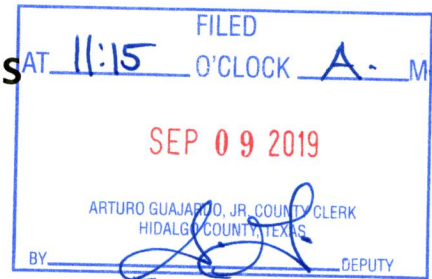


**HIDALGO COUNTY**  
**Professional Engineering Services**  
**Contract # C-15-255A-09-01**  
**Work Authorization Form**  
**WORK AUTHORIZATION NO. 4**



**THIS WORK AUTHORIZATION** is made pursuant to the terms and conditions of Article 1 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 Consulting Engineers, Inc. d/b/a L&G Engineering**, professional engineers of Mercedes, Texas hereinafter called "**Engineer**".

**PART 1. SCOPE OF WORK**

The purpose of this Work Authorization is for the Engineer to provide Engineering Services required for the preparation of the Traffic Signal Warrant Studies, Project Management and Coordination associated for the Intersection on Carmen Avila Road and Mile 22 ½ Traffic Signal Warrant Project in Precinct No. 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 **\$9,684.72**. This amount is based upon the costs outlined in the Estimated **Cost Proposal** attached hereto as **EXHIBIT "D-1" - Estimated Man-hour Breakdown**.

**PART 3. PAYMENT**

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with **Article 6** of the Agreement.

**PART 4. FUNDING**

This Work Authorization No. 4 shall be funded through funding source:

Account No. 9-1200-431-00-124-007-0-334

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, as identified on *EXHIBIT "C" - Work Schedule*.

**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 Ellie Torres as to the content and detail of this Work Authorization No. 4.

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 9/3/19 as indicated below.

THE ENGINEER:  
L&G ENGINEERING

THE OWNER:  
HIDALGO COUNTY

\_\_\_\_\_  
*Jacinto Garza*

\_\_\_\_\_  
*Richard F. Cortez*

By: Jacinto Garza, P.E.  
President

By: Richard Cortez,  
County Judge

WITNESSED BY:  
\_\_\_\_\_  
*Arturo Guajardo, Jr.*

By: Arturo Guajardo, Jr., County Clerk

APPROVED BY  
COMMISSIONERS' COURT  
ON: 9/3/19 *grb*

**LIST OF EXHIBITS**

- Exhibit A - Services to be provided by Owner
- Exhibit B - Services to be provided by Engineer
- Exhibit C - Work Schedule
- Exhibit D-1 - Estimated Man-hour Breakdown

EXHIBIT "A"  
SCOPE OF SERVICES TO BE PROVIDED BY THE OWNER

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The following provides an outline of the services to be provided by Hidalgo County (hereinafter denoted as the **Owner**) in the development of the Carmen Avila/Mile 22 ½ Traffic Signal Warrant Study Project (hereinafter denoted as the **Project**).

**GENERAL:**

The **Owner** will provide to the **Engineer** the following:

- 1) Provide the authorization to proceed.
- 2) Payment for work performed by the **Engineer** and accepted by the **Owner**.
- 3) Provide any available relevant data concerning the **Project**, including but not limited to:
  - a. As built plans for the Mile 22 ½ extension
- 4) Provide timely review and decisions in response to the **Engineer's** request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain the agreed upon work schedule.
- 5) Attend and participate in progress meetings as required and as coordinated and conducted by **Engineer**.

Exhibit B  
**SCOPE OF SERVICES**  
**TRAFFIC SIGNAL WARRANT STUDY**

**Carmen Avila Road at Mile 22.5 Road**

**Project Understanding**

The new extension of Mile 22.5 Road intersects Carmen Avila Road at the Harwell Middle School Driveway. Since no controls have been established for this intersection, an engineering study was requested by Hidalgo County to determine if a signal control is warranted at this intersection.

Ergonomic Transportation Solutions, Inc. (ETSI) will conduct a traffic signal warrant study at the aforementioned intersection.

Shown below in detail, is ETSI's scope of services:

**TRAFFIC SIGNAL WARRANT STUDY:**

The traffic signal warrant study will follow the required guidelines listed in the Texas Manual on Uniform Traffic Control Devices (Texas MUTCD), latest edition and in accordance to TxDOT requirements.

ETSI will provide the following services:

**TASK 1 - Collect Data and Conduct Field Investigation**

- Collect traffic counts
- Take photos for each intersection approach
- Identify potential sight distance restrictions
- Identify posted speed limits
- Identify presence of roadway illumination
- Record existing intersection controls
- Record general geometry of the intersection
- Record visible utilities, including power lines
- Record existing development in the vicinity of the intersection
- Record major traffic generators in the area
- Record other features that might impact installation of a traffic signal control
- Observe existing traffic patterns

**Task 2 - Assess collected data**

- Assess completeness of collected data

**Task 3 - Accident Analysis**

- With assistance from L&G Engineering, request accident records for the past four

years from local law enforcement authorities.

- Conduct accident analysis as required by the Texas MUTCD. Determine if five or more of the reported crashes that occurred within a 12 month period can be susceptible to correction by a Traffic Signal control.

#### **Task 4 - Collision Diagrams**

- Based on the collected accident reports, prepare collision diagrams that show the occurred accidents in diagrammatic form.

#### **Task 5 - Intersection Exhibits**

- Prepare intersection conceptual layout in approximate scale to present the ultimate geometric conditions of the intersection.

#### **Task 6 - Warrant Analyses**

- Assess current traffic counts and based on traffic growth trends in the area make projections for five year horizon, in anticipation of future traffic growth along the new Mile 22.5 Road.
- Conduct warrant analysis
- Prepare warrant forms and charts

#### **Task 7 - Photo Album**

- Prepare a photo albums of each approach of the intersection, depicting features and data supporting the warrant study.

#### **Task 8 - Recommendations**

- In case where a Traffic Signal control is warranted, ETSI will make recommendations for the type of signal installation to be implemented along with other improvements to enhance safety.
- In cases where a Multi-Way Stop control is warranted, ETSI will make recommendations for signs and flashing beacon installation to be implemented along with other improvements to enhance safety.
- In cases where a Multi-Way Stop control or traffic signal control is not warranted, ETSI may suggest other actions to improve safety and quality of traffic flow.

#### **Task 9 - Warrant Study Report**

- Prepare a report that presents all data collected, analyses work, exhibits, photographs and recommendations.

### **SERVICES TO BE PROVIDED BY L&G ENGINEERING**

L&G will assist in the collection of accident records from the proper law enforcement agencies.

L&G will furnish ETSI hard copies and electronic versions of the intersection geometry.

L&G will assist ETSI to obtain traffic projection data from Hidalgo County MPO.

L&G will also provide coordination and communication for the progress of the work among all parties involved.

### **TIME SCHEDULE**

ETSI will submit to L&G a draft report within four (4) weeks from the notice to proceed. A final report will be produced addressing L&G's draft report comments. The final report will be submitted to L&G within one week of receipt of L&G's comments.

**EXHIBIT C - TRAFIC SIGNAL WARRANT STUDY - TIMELINE SCHEDULE**

**CARMEN AVILA ROAD AT MILE 22.5 ROAD**

TASK	WEEKS				
	1	2	3	4	5
TASK 1 - Collect Data and Conduct Field investigations					
Task 2 - Assess collected data					
Task 3 - Accident Analysis					
Task 4 - Collision Diagram					
Task 5 - Intersection Exhibit					
Task 6 - Warrant Analyses					
Task 7 - Photo album					
Task 8 - Recommendations					
Task 9 - Traffic Signal Warrant Study Report					

**S SUBMITTAL**

**EXHIBIT D-1**  
ESTIMATED MAN-HOUR BREAKDOWN

Intersection on Carmen Avila Road and Mile 22 1/2  
Traffic Signal Warrant Studies

	MANHOURS										TOTAL HOURS	Sub-Contract Amounts / ROW COST	TOTAL LINE ITEM COST			
	Senior Project Manager	Senior Engineer	Project Engineer	Geo Technical Engineer	Senior Engineering Technician	CADD Operator/GIS Analyst	Admin / Clerical									
<b>CONTRACT RATE</b>	209.81	173.84	134.88	179.84	95.91	65.94	59.95									
<b>WORK AUTHORIZATION NO. 4</b>																
<b>Adjustment of Existing Signal Timing Design</b>																
1 SUB: Ergonomic Transportation Solutions, Inc. (See fee breakdown on Page 2 of 2)																
2 Project Mapping, Management and Coordination	2	4	8										\$ 7,490.70	\$	2,194.02	
<b>SUB-TOTAL</b>	2	4	8	0	0	0	0	0	0	0	0	0	\$ 7,490.70	\$	2,194.02	
Sub-Total Manhours Fee with Subconsultant Fee:											\$	9,684.72				
<b>TOTAL PROJECT FEE:</b>											\$	<b>9,684.72</b>				



# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.  
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

## OFFICE USE ONLY CERTIFICATION OF FILING

**1 Name of business entity filing form, and the city, state and country of the business entity's place of business.**

L&G Engineering  
Mercedes, TX United States

**Certificate Number:**  
2019-530037

**Date Filed:**  
08/19/2019

**Date Acknowledged:**  
08/27/2019

**2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**

Hidalgo County

**3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**

C-15-255A-09-01  
On Call Services-Traffic Studies County Wide - Work Auth. No. 4 - Traffic Signal Warrant Study

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Garza, Jacinto	Mercedes , TX United States	X	
	Sandoval , Armando	Mercedes, TX United States		X

**5 Check only if there is NO Interested Party.**

**6 UNSWORN DECLARATION**

My name is \_\_\_\_\_, and my date of birth is \_\_\_\_\_.

My address is \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.  
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in \_\_\_\_\_ County, State of \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(month) (year)

\_\_\_\_\_  
Signature of authorized agent of contracting business entity  
(Declarant)

# CERTIFICATE OF INTERESTED PARTIES

FORM 1295

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Hidalgo County

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C-15-255A-09-01  
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	Garza, Jacinto	Mercedes , TX United States	X	
	Sandoval , Armando	Mercedes, TX United States		X

5 Check only if there is NO Interested Party.

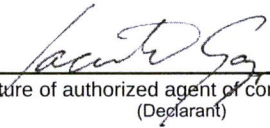
**6 UNSWORN DECLARATION**

My name is Jacinto Garza, and my date of birth is 10/23/1961.

My address is 2100 W. Expressway 83, Mercedes, TX, 78570, USA.  
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Hidalgo County, State of Texas, on the 19 day of August, 20 19.  
(month) (year)

  
 \_\_\_\_\_  
 Signature of authorized agent of contracting business entity  
 (Declarant)