

L&G Engineering Laboratory

Construction Material Testing
Geotechnical Engineering

June 25, 2015

Commissioner Joseph Palacios
Attn: Maria "LuLu" Lucio
Hidalgo County, Pct. #4
1102 N. Doolittle Rd.
Edinburg, Texas 78539



RE: Linn San Manuel Facility

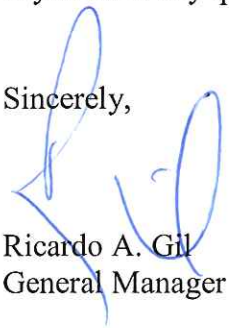
Dear Ms. Lucio:

Included for your use with this letter are test reports **R052-28 & R058 thru R059** for **Construction Material Testing** performed on the above referenced project.

L&G Engineering Laboratory appreciates the opportunity to serve your material testing needs on this project and we look forward to working with you in the future.

If you have any questions, feel free to contact me at 956-565-0760.

Sincerely,


Ricardo A. Gil
General Manager

Attachments

CC: JCON Construction, LLC, Mr. Juan Jose Pena Jr.

**CONCRETE COMPRESSION
 TEST REPORT**

Project Description: Linn San Manuel Facility
 Client: Hidalgo County Pct. #4
 Contractor: JCON Construction, LLC

L&G Project Number: L1301404
 L&G Report Number: R052-28
cast date Sample Date: 04/17/2015
 Date Reported: 06/18/2015

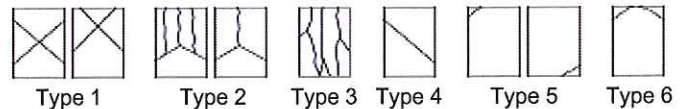
Client PO: 713423

Page 1 of 1

Placement Location: Sidewalk 25ft S. of Women's restroom
 Mix ID: 3000CG1 Supplier: Central Ready Mix
 Specified Strength: 3,000 P.S.I. @ 28 days
 Specified Slump: Max 5 Slump: 5.5"
 Specified Air Content: N/A Air Content: 2.5%
 Weather Conditions: Cloudy & Humid Air Temp.: 79°F
 Time Batched: 8:00 am Time Sampled: 10:15 am Concrete Temp.: 87°F
 Plant Ticket No: 453164 Truck No: 252 CY: 10
 Water: 0 gal.

Compressive Strength Data

Set No.	Identification	Test Date	Age (days)	Maximum Load (pounds)	Break Type	Comp. Strength (psi)	Average Strength (psi)	% of Design
7	A	04/24/2015	7	64,685	Type 3	2,290		76.33%
	B	04/24/2015	7	64,880	Type 3	2,290	2,290	76.33%
	C	05/15/2015	28	85,145	Type 4	3,010	3,010	100.33%
	D	06/12/2015	56	109,935	Type 3	3,890	3,890	129.67%



Remarks/Comments:

6 x 12 in. Cylinders ✓

Orig: Hidalgo County Pct. #4 (Gen.) (Hidalgo County Pct. #4)
 (Edinburg, TX) Attn: Raul Sesin
 (1-cc copy)
 1-cc JCON Construction, LLC
 Attn: Juan Jose Pena Jr.
 1-cc Laboratory

Respectfully Submitted,
 L&G Engineering Laboratory

Ricardo A. Gil, Lab Manager

Celia Almaguer

From: Jesus Ozuna [jesus.ozuna@co.hidalgo.tx.us]
Sent: Thursday, April 16, 2015 8:46 AM
To: Rick Gil
Cc: Celia Almaguer; Lulu Lucio; domingo@jconconstruction.com; Hector Garcia
Subject: Fwd: Linn-SanManuel Concrete

Good Morning,

As per your on call contract C-13-220-08-13 (Work Authorization #6 Linn San Manuel Emergency Service Facility), we would like to request the following:

1. Concrete strength testing for sidewalks and curb at the Linn San Manuel Emergency Facility to include air content (pressure method), cyl. spec. prep, hold, cure, compressive strength of cyl. specimen, and test reports.

Rosa-28

28-day break

Cast date
Please begin testing Friday, April 17th at 9:00am. A representative from the Precinct and Contractor will be there. Should you have any questions or need anything else please let me know. Thank you, have a great day!

Jesse Ozuna

Sent from my iPhone

Begin forwarded message:

From: domingo <domingo@jconconstruction.com>
Date: April 16, 2015 at 8:43:56 AM CDT
To: Jesus Ozuna <jesus.ozuna@co.hidalgo.tx.us>
Subject: Re: Linn-SanManuel Concrete

Jesse,

Going to try to pour concrete tomorrow. Can you please send a directive to L&G Engineering to perform concrete strength tests for sidewalk and curb. Testing to be done on 04-17-15 @ 9:00 am. Thanks.

Sent from my ZTE Grand™ X, a Cricket 4G smartphone

Jesus Ozuna <jesus.ozuna@co.hidalgo.tx.us> wrote:

Good Morning Rick,

SUMMARY OF ASPHALT ROLLING PATTERN TEST REPORT

Project Description: Linn San Manuel Facility
 Client: Hidalgo County Pct. #4
 Contractor: JCON Construction, LLC

L&G Project Number: L1301404
 ✓ L&G Report Number: R058
 ✓ Sample Date: 06/09/2015
 Date Reported: 06/09/2015

Client PO: 713423

Page 1 of 1

Material Description: Hot Mix Asphalt Paving ✓
Material Source: Valley Caliche
Specification: TxDOT Item 340

Rolling Pattern Location	Density (%)	Air Voids (%)
NE Corner of Parkig Lot	92.3	7.7
SW Corner of Paring Lot	91.6	8.4
100ft S & 5ft E of 186 Rd. on Driveway	91.9	8.1
375ft S & 5ft W of 186 Rd. on Driveway	92.9	7.1
30ft N x 25ft W of SW Corner of Canopy Area on Back Driveway	92.1	7.9
65ft N x 10ft W of SE Corner of Canopy Area on Back Driveway	92.7	7.3

Procedure: A Rolling Pattern was established using an Instrotek Model Number 3500 Nuclear Density Gauge. Further compaction of the asphalt surface was achieved by the use of a Pneumatic roller after the initial rolling operation. Target Maximum Density used was 153.1 Lbs/Cf. TxDot Item 340 specifies a target in place density of 91 to 95 percent.

Remarks: Tex Method 207F Part III, Tex Method 222F

Test Method (As Applicable): *Density of Asphaltic Cores,*

Orig: Hidalgo County Pct. #4 (Gen.) (Hidalgo County Pct. #4)
 (Edinburg, TX) Attn: Raul Sesin
 (1-cc copy)
 1-cc JCON Construction, LLC
 Attn: Juan Jose Pena Jr.
 1-cc Laboratory

Respectfully Submitted,
 L&G Engineering Laboratory



Ricardo A. Gil, Lab Manager

Celia Almaguer

From: Rick Gil
Sent: Monday, June 08, 2015 11:18 AM
To: Jesus Ozuna
Cc: Celia Almaguer; Lulu Lucio; domingo; Hector Garcia; Billy Ortiz
Subject: RE: Testing Needed for LSMESF - asphalt surface

Good Morning,

We will schedule your request. Will you need us to sample the materials and test in the lab as well?

Rick

From: Jesus Ozuna [<mailto:jesus.ozuna@co.hidalgo.tx.us>]
Sent: Monday, June 08, 2015 11:20 AM
To: Rick Gil
Cc: Celia Almaguer; Lulu Lucio; domingo; Hector Garcia
Subject: Testing Needed for LSMESF - asphalt surface

ROSA

Good Morning Ric,

As per your on call contract C-13-220-08-13 (Work Authorization #6 Linn San Manuel Emergency Service Facility), we would like to request the following:

1. compaction tests for hot mix asphalt surface on drives. Testing to be done on Tue 06/09/15 at 11:00 am.

Please begin testing Tuesday, June 9th at 11:00 am. A representative from the Precinct and Contractor will be there. Should you have any questions or need anything else please let me know. Thank you, have a great day!

Thank you,

Jesse Ozuna

Hidalgo County Pct. 4
956.383.3112 (o)
956.648.3493 (c)
jesse.ozuna@co.hidalgo.tx.us



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**BITUMINOUS MIXTURE PROPERTIES
 TEST REPORT**

Project Description: Linn San Manuel Facility
 Client: Hidalgo County Pct. #4
 Contractor: JCON Construction, LLC

L&G Project Number: L1301404
 - L&G Report Number: R059
 Sample Date: 06/09/2015
 Date Reported: 06/09/2015

Client PO: 713423

Page 1 of 1

Material Description: Hot Mix Asphalt Paving ✓
Material Source: Valley Caliche
Specification: TxDOT Item 340 (Ty D)

Sieve Size ✓	Result (% Passing)	Ty D Fine Surface Requirement
1/2"	99.0	100.0
3/8"	95.0	85-100
No. 4	65.0	50-70
No. 10	35.0	32-42
No. 40	21.0	11-26
No. 80	14.0	4-14
No. 200	6.0	1-6

Tex-236-F Asphalt Content (Ignition Method) ✓

Asphalt Content = 5.1% (design value) ¹
Tex-227-F Theoretical Maximum Specific Gravity of Bituminous Mixtures

(Rice Gravity) Gr = 2.454 (design value) ²
Tex-207-F Density of Compacted Bituminous Mixtures

(Bulk Specific Gravity) Ga = 2.390 (design value) ³
Density (%) = 97.4 (96% + or - 1.5%)

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 L&G Engineering Laboratory



Ricardo A. Gil, Lab Manager

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Subject: Testing Needed for LSMESF - asphalt surface

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Jesse Ozuna

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FIELD DENSITIES
TEST REPORT

Project Description: Linn San Manuel Facility
 Client: Hidalgo County Pct. #4
 Contractor: JCON Construction, LLC

L&G Project Number: L1301404
 L&G Report Number: R053
 Sample Date: 05/01/2015
 Date Reported: 05/01/2015

Client PO: 713423

Page 1 of 1

Material Description Base Material MD5

Required % Proctor 98 Moisture Tolerance -2+3

Proctor No	Optimum % Moisture	Opt. Density, LB/CF
BASE MD5	18.0	108.6

Test No.	Test Location	Proctor No	Moisture Content	Dry Density	Percent Compaction	Depth (inch)
1	10ft S x 10ft E of SW corner of Fire Bay	BASE MD5	12.9%	112.9 pcf	104.0% (Fail)	4"
2	25ft S x 5ft W of SE Corner of Fire Bay	BASE MD5	13.5%	111.6 pcf	102.8% (Fail)	4"
3	10ft N x 25ft W of NE Corner of Canopy	BASE MD5	13.6%	114.9 pcf	105.8% (Fail)	4"
4	10ft N x 20ft W of NW Corner of Canopy	BASE MD5	11.1%	119.4 pcf	109.9% (Fail)	4"

Remarks: Test results failed to meet project requirements
 Test Methods: ASTM D2922, D3017

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 1-cc Laboratory

Respectfully Submitted,
 L&G Engineering Laboratory



Ricardo A. Gil, Lab Manager

**Construction Material Testing
Geotechnical Engineering**
INVOICE
Invoice Date: 06/25/2015
Invoice No: 15-6-000015

Page 1 of 2

**2100 W. Expressway 83
Mercedes, TX 78570
Office (956) 565-0760 Fax (956) 565-6746**
Client Address: Hidalgo County Pct. #4
 1102 N. Doolittle Rd.
 Edinburg, TX. 78539

Account No.: L130
Project No: L1301404
Project Desc.: Linn San Manuel Facility

Due Date: UPON RECEIPT
Budget/Remaining: \$49,207.32 / \$26,953.50
PO: 713423

===== Invoice Summary by Billing Code =====

	<u>Unit Rate</u>	<u>Qty</u>	<u>Extension</u>
920:92034 - Comp. Strength of Cyl. Specimen	\$15.68	1.00	\$15.68
930:93039 - Extraction, Sieve Analysis., Asph. Content	\$229.04	1.00	\$229.04
930:93043 - Density of Asphalt Cores (each)	\$71.96	3.00	\$215.88
930:93047 - Asphalt Rolling Patterns	\$39.27	6.00	\$235.62
940:94045 - Eng. Tech. (Asphalt / Lab)	\$60.18	2.00	\$120.36
940:94047 - Eng. Tech. (Concrete / Lab)	\$60.18	0.25	\$15.05
940:94052 - Eng. Tech. (Asphalt)	\$60.18	3.00	\$180.54
940:94054 - Engineering Specialist	\$117.75	0.75	\$88.32
940:94055 - Engineer / P.E.	\$157.08	0.75	\$117.81
950:95058 - Vehicle Trip Charge	\$0.52	100.00	\$52.00
950:95061 - Test Report	\$23.24	3.00	\$69.72
Total for this Invoice:			\$1,340.02

===== Invoice Detail by Report =====

<u>Report No.</u>	<u>Sampled</u>	<u>Qty</u>	<u>Billing Code</u>	<u>Unit Type</u>	<u>Unit Rate</u>	<u>Extension</u>
R052-28	04/17/2015	1.00	920:92034 - Comp. Strength of Cyl. Specimen	Each	\$15.68	\$15.68
R052-28	04/17/2015	0.25	940:94047 - Eng. Tech. (Concrete / Lab)	Each	\$60.18	\$15.05
R052-28	04/17/2015	0.25	940:94054 - Engineering Specialist	Hour	\$117.75	\$29.44
R052-28	04/17/2015	0.25	940:94055 - Engineer / P.E.	Hour	\$157.08	\$39.27
R052-28	04/17/2015	1.00	950:95061 - Test Report	Each	\$23.24	\$23.24
<i>Report Number R052-28 for a Subtotal of:</i>						\$122.68

**REMIT TO: 2100 W. Expressway 83
Mercedes, TX 78570
Office (956) 565-0760 Fax (956) 565-6746**
Net 30 Days

**Construction Material Testing
Geotechnical Engineering**

2100 W. Expressway 83
Mercedes, TX 78570
Office (956) 565-0760 Fax (956) 565-6746

===== Invoice Detail by Report =====

<u>Report No.</u>	<u>Sampled</u>	<u>Qty</u>	<u>Billing Code</u>	<u>Unit Type</u>	<u>Unit Rate</u>	<u>Extension</u>
✓ R058	06/09/2015	6.00	930:93047 - Asphalt Rolling Patterns	Each	\$39.27	\$235.62
R058	06/09/2015	3.00	940:94052 - Eng. Tech. (Asphalt)	Hour	\$60.18	\$180.54
R058	06/09/2015	0.25	940:94054 - Engineering Specialist	Hour	\$117.75	\$29.44
R058	06/09/2015	0.25	940:94055 - Engineer / P.E.	Hour	\$157.08	\$39.27
R058	06/09/2015	100.00	950:95058 - Vehicle Trip Charge	Mile	\$0.52	\$52.00
R058	06/09/2015	1.00	950:95061 - Test Report	Each	\$23.24	\$23.24
Report Number R058 for a Subtotal of:						\$560.11
R059	06/09/2015	1.00	930:93039 - Extraction, Sieve Analysis., Asph. Content ✓	Each	\$229.04	\$229.04
R059	06/09/2015	3.00	930:93043 - Density of Asphalt Cores (each)	Each	\$71.96	\$215.88
R059	06/09/2015	2.00	940:94045 - Eng. Tech. (Asphalt / Lab)	Each	\$60.18	\$120.36
R059	06/09/2015	0.25	940:94054 - Engineering Specialist	Hour	\$117.75	\$29.44
R059	06/09/2015	0.25	940:94055 - Engineer / P.E.	Hour	\$157.08	\$39.27
R059	06/09/2015	1.00	950:95061 - Test Report	Each	\$23.24	\$23.24
Report Number R059 for a Subtotal of:						\$657.23
Total for this Invoice:						\$1,340.02

REMIT TO: 2100 W. Expressway 83
Mercedes, TX 78570
Office (956) 565-0760 Fax (956) 565-6746

Net 30 Days

**PAST DUE BALANCES SUBJECT TO 1.5% SERVICE CHARGE PER MONTH
PLEASE REFERENCE INVOICE NUMBER WITH PAYMENT**

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 Approx. 7,600 SF</i>
Atterberg Limits of Soils	2	Ea.	\$78.48	\$156.96	
Material Finer #200	2	Ea.	\$65.49	\$130.98	<i>New Parking Area Approx. 24,000 SF</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:				\$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 Based on 3 Visits to Project To perform testing</i>
Test Report	3	Ea.	\$23.24	\$69.72	
Technician (Soils)	10	Hr.	\$47.14	\$471.40	
Mileage (Trip Charge)	252	Mi.	\$0.52	\$131.04	
Subtotal:				\$1,025.56	
<i>Select Fill (Type 1 or 4) Soils Testing-Slab-Laboratory</i>					
Standard Proctor	1	Ea.	\$202.78	\$202.78	<i>Based on 1 Select Fill Samples 2 Additional Atterberg Limits & Sieve Analysis for Field Verification of Select Fill Materials</i>
Atterberg Limits of Soils	3	Ea.	\$78.48	\$235.44	
Sieve Analysis	3	Ea.	\$58.85	\$176.55	
Technician (Soils)	8	Hr.	\$47.14	\$377.12	
Mileage (Trip Charge)	168	Mi.	\$0.52	\$87.36	
Test Report	4	Ea.	\$23.24	\$92.96	
Subtotal:				\$1,172.21	
<i>Select Fill (Type 1 or 4) Soils Testing-Field-Standard Mobilizing</i>					
Field Density Test	12	Ea.	\$23.56	\$282.72	<i>Based on 2 - 6" Lifts A Minimum of 4 Compaction Test Per Lift or every 3000 Square Feet 4 tests per lift</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:				\$699.40	
<i>Concrete Reinforcement Steel Placement Verification (Concrete Masonry Units)</i>					
Test Report	10	Ea.	\$23.24	\$232.40	<i>Verification Inspection assuming 10 grout placements</i>
Technician (Concrete)	30	Hr.	\$60.18	\$1,805.40	
Mileage (Trip Charge)	840	Mi.	\$0.52	\$436.80	
Subtotal:				\$2,474.60	
<i>Concrete Placement-Field Slabs-Main Building-Covered Parking</i>					
Air Content (Pressure Method)	4	Ea.	\$23.51	\$94.04	<i>Assuming 4 Placements for a total of 200 cy 1 set Every 50 as per General Notes 4 Cylinders to be Tested for Compression at a Frequency of Two 7 Day and Two 28 Day</i>
Test Report	4	Ea.	\$23.24	\$92.96	
Technician (Concrete)	12	Hr.	\$60.18	\$722.16	
Mileage (Trip Charge)	336	Mi.	\$0.52	\$174.72	
Subtotal:				\$1,083.88	
Cyl. Spec. Prep, Hold, Cure	16	Ea.	\$11.83	\$189.28	
Comp. Str. Of Cyl. Specimen	16	Ea.	\$15.68	\$250.88	
Test Reports (7 and 28 day)	8	Ea.	\$23.24	\$185.92	
Technician (Concrete)	16	Hr.	\$60.18	\$962.88	
Mileage (Trip Charge)	336	Mi.	\$0.52	\$174.72	
Subtotal:				\$1,783.68	

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 and 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 SPGIABS/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	<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	
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 Monitor Testing

Test Report	10	Ea.	\$23.24	\$232.40	<i>Assuming 10 placements</i>
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 Boil or Torque Inspection

Engineering Specialist	16	Ea.	\$117.75	\$1,884.00	<i>Assuming 4 Visits to perform Welding and/or Boil Torque Inspection</i>
Mileage (Trip Charge)	336	Mi.	\$0.52	\$174.72	
Test Report	4	Ea.	\$23.24	\$92.96	
			Subtotal:	\$2,151.68	

Intact Soil 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	

Intact Soil in Situ Soils Testing Field/Pavement Subgrade

Field Density Test	10	Ea.	\$23.56	\$235.60	<i>Quantity Based On 2 site visits to</i>
Test Report	2	Ea.	\$23.24	\$46.48	
Technician (Soils)	6	Hr.	\$47.14	\$282.84	

Site Select Fill Soils Testing-Laboratory					
Standard Proctor	1	Ea.	\$202.78	\$202.78	Quantity Based in 1 site visit to obtain sample
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
Site Select Fill Soils Field Testing and Monitoring					
Field Density Test	10	Ea.	\$23.56	\$235.60	Quantities based on 2 visits to perform testing
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:	
Flexible Base (Caliche) Parking Areas Testing-Laboratory					
Standard Proctor	1	Ea.	\$202.78	\$202.78	Quantity based on 1 site visit to obtain sample
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
Flexible Base (Caliche) Parking Areas Field Testing and Monitoring					
Field Density Test	8	Ea.	\$23.56	\$188.48	Quantities based on three (3) visits to perform in-place testing
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:	
Hot Mix Asphalt Paving Parking Area					
Ext. Sieve Analysis/Asph Content	2	Ea.	\$229.04	\$458.08	Quantities based on three site visits to perform testing
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

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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

Exhibit A

L & G Engineering
Consulting Engineers

EXHIBIT "C"
L&G ENGINEERING
CONSTRUCTION MATERIALS TESTING
LABORATORY RATES FOR FY 2014-2015

Soils Testing

		FY 2014	FY 2015
Moisture Content Determination	ASTM D2216 - Tex-103-E	\$10.40/Ea.	\$10.55/Ea.
Determination of Liquid Limit of Soils	Tex-104-E	\$52.37/Ea.	\$53.15/Ea.
Determination of Plastic Limit of Soils	Tex-105-E	\$52.58/Ea.	\$53.37/Ea.
Atterberg Limits of Soils	ASTM D 4318 - Tex 106-E	\$78.48/Ea.	\$79.66/Ea.
Bar Linear Shrinkage of Soils	Tex-107-E	\$65.49/Ea.	\$66.47 Ea.
Material Finer #200 Sieve	ASTM D 1140 -Tex-111-E	\$65.49/Ea.	\$66.47 Ea.
Lime Series Testing	Tex-112-E	\$529.04/Ea.	\$536.97/Ea.
Moisture-Density Relationship (TxDOT)	Tex-113-E Tex-114-E	\$209.45/Ea.	\$212.59/Ea.
Standard Proctor	ASTM D 698	\$202.78 Ea.	\$205.82 Ea.
Modified Proctor	ASTM D 1557	\$209.36 Ea.	\$212.50 Ea.
Field Density Test (Nuclear)	ASTM D 2922 - Tex-115-E	\$23.56/Ea.	\$23.91 Ea.
Determination of Soil pH	Tex-128-E	\$85.12/Ea.	\$86.40/Ea.
Soil-Lime Testing	Tex-121-E	\$157.08/Ea.	\$159.44/Ea.
Resistivity of Soils	Tex-129-E	\$95.22/Ea.	\$96.65/Ea.
Sieve Analysis (Dry)(4 Sieves)	ASTM C 136 - Tex-110-E	\$58.85/Ea.	\$59.73/Ea.
Sieve Analysis (Washed)(4 Sieve)	ASTM C 136 - Tex-110-E	\$71.20/Ea.	\$72.27/Ea.
Sieve Analysis (Additional Sieves)	ASTM C 136 - Tex-110-E	\$13.11/Ea.	\$13.31/Ea.
Texas Wet Ball Mill (Base Material Quality)	Tex-116-E	\$229.11/Ea.	\$232.55/Ea.

Coarse & Fine Aggregate Quality Testing

Decantation Test (Conc. Aggr.)	ASTM C117 - Tex-406-A	\$45.81/Ea.	\$46.50/Ea.
Specific Gravity/Absorp. (Conc. Aggr.)	ASTM C127 - Tex-403-A	\$71.91/Ea.	\$72.99/Ea.
5 Cycle Magnesium Soundness	ASTM C88 - Tex-411-A	\$556.21/Ea.	\$564.55/Ea.
SSD Unit Weight of Aggregates	ASTM C29 - Tex-404-A	\$65.49/Ea.	\$66.47/Ea.
Percent Voids/Solids in Conc. Aggr.	Tex-405-A	\$13.05/Ea.	\$13.25/Ea.
*(In Conjunction w/ SSD Unit Wt of Aggregates)			
Sand Equivalent	ASTM D 2419 - Tex-203-F	\$71.91/Ea.	\$72.99/Ea.
Specific Gravity / Absorption (Fine Aggr.)	ASTM C 128 - Tex -403-A	\$78.49/Ea.	\$79.67/Ea.
Organic Impurities in Fine Aggregate	ASTM C 87 - Tex -408-A	\$45.81/Ea.	\$46.50/Ea.
Fineness Modulus of Fine Aggregate	Tex-402-A	\$15.71/Ea.	\$15.95/Ea.
Acid Insoluble of Fine Aggregate	Tex-612-J	\$85.12/Ea.	\$86.40/Ea.

Concrete/Masonry Field & Laboratory Testing

Slump Test	ASTM C 143 - Tex-415-A	\$no charge	\$no charge
Air Content (Pressure Method)	ASTM C 138 - Tex-416-A	\$23.51/Ea.	\$23.86/Ea.
Air Content (Volumetric)	ASTM C 173	\$26.17/Ea.	\$26.56/Ea.
Casting of Concrete Cylinders	ASTM C 31	\$no charge	
Compressive Strength of Cyl. Specimen	ASTM C 39 - Tex-418-A	\$15.68/Ea.	\$15.92/Ea.
Cylindrical Specimen Prep./Hold/Cure	ASTM C 192	\$11.83/Ea.	\$12.00/Ea.
Casting of Grout Prisms	ASTM C 1019	\$no charge	
Grout Prism Prep./Cure/Compressive Strength	ASTM C 39	\$32.74/Ea.	\$33.23/Ea.
Casting of Mortar Cubes	ASTM C 780	\$no charge	
Mortar Cube Prep./Cure/Compressive Strength	ASTM C 109	\$32.00/Ea.	\$32.48/Ea.
Masonry Unit Prep. /Compressive Str. (Set of 3)	ASTM C 140	\$228.98/Ea.	\$232.41/Ea.
Masonry Unit SPG/Abs./Unit Wt. (Set of 3)	ASTM C 140	\$228.98/Ea.	\$232.41/Ea.
*(In Conjunction w/ Field Inspection)			

L&G Engineering
Hidalgo County Pct. #4

Exhibit "C"
Page 1 of 2

Pavement Thickness / Asphalt Quality

		FY 2014	FY 2015
Coring - ACP Thickness	ASTM D 3549	\$65.49/Ea.	\$66.47/Ea.
Pavement Thickness Determination (Full Depth)	ASTM	\$87.14/Ea.	\$88.45/Ea.
Density of Asphaltic Cores (4 or 6 inch)	Tex-207-F	\$71.96/Ea.	\$73.04 Ea.
Extraction/Sieve Analysis/Asphalt Content	Tex-210-F . Tex-200-F	\$229.04Ea	\$232.48 Ea
Asphalt Rolling Pattern (Nuclear Method)	Tex-207-F Part IV	\$39.27/Ea.	\$39.86 Ea.
Eff. Of Water on Asphalt Mixtures (As Rec'd)	Tex-531-C	\$85.12/Ea.	\$86.40.Ea.

Pavement Investigation

	FY 2014	FY 2015
Core Existing Asphalt for Thickness, Perform Caliche Base Thickness, Sieve Analysis and Plasticity Index, Stabilized Subgrade Thickness and Plasticity Index	\$490.72 Ea	\$498.08 Ea.

L&G Engineering provides Technical and Engineering services at the rates listed below.

<u>Personnel:</u>			
Engineer (Principal).....	\$157.08 Hr.	\$159.44/Hr.	
Engineering Specialist.....	\$117.75/Hr.	\$119.52/Hr.	
Technician (Soils).....	\$ 47.14/Hr.	\$47.85/Hr.	
Technician (Concrete).....	\$ 60.18/Hr.	\$61.08/Hr.	
Technician (Asphalt).....	\$ 60.18/Hr.	\$61.08/Hr.	

Engineering Review, Evaluation, Management & Administration

	FY 2014	FY 2015
Test Report.....	\$ 23.24/Ea.	\$23.59/Ea.

The specific hourly rate within each classification listed above depends on the experience, training, and qualifications of the personnel. A two (2) hour minimum billing at the applicable rate will be assessed per visit to project site.

Services provided on Saturday, Sunday and all work in excess of "normal" work hours will be invoiced at an overtime rate 1.5 times the applicable rate for the work performed. The cost of services is based upon the assumption that services will be provided during "normal" working hours. Normal working hours are between 7:00 a.m. and 6:00 p.m., Monday through Friday.

<u>Expenses:</u>		
Mileage.....	.52/Mi.	.53/Mi.

All other project specific, third-party costs will be charged at cost plus 10 percent. Invoices will be submitted monthly for work in progress in our standard format. They are due and payable upon receipt and become due 30 days after the billing date. Past due invoices may be subject to late charges at the rate of 1 1/2 percent per month (18 percent per annum). In the event that the State of Texas legislates a sales tax on Professional Services, the amount of the tax will be added to the appropriate service rate charged. Our invoices are due and payable upon receipt at 2100 W. Expressway 83, Mercedes, Texas 78570.

^^Fees adjusted approximately 1.5% annually.