

Vendor # 23968
PO # 130775
Receiver #
Date Received:
Initials:
Approved By: Alisha Lessey-Stallone
Date: 10/28/19

INVOICE

Mr. Rick Staigle, PE
 FORT BEND COUNTY ENGINEERING
 301 Jackson Street
 Richmond, TX 77469

October 25, 2019
 Project No: 700792001
 Invoice No: 232346



Handwritten signature: J. Maldonado 11-6-19

Construction Materials Testing and Observation Services
 Bus Maintenance Facility Bamore Road Extension
Bamore Road and Klauke Road
 Rosenberg, Texas
 PO No.: 130775

Invoice for materials testing services for the referenced project through September 27, 2019. Services included field services, laboratory testing, report preparation and project management.

Tax ID No. 33-0269828

Professional Services

Task	01	Field Services			
			Hours	Rate	Amount
		Technician			
		Badkoobeh, Hamid	9/26/2019 ✓	4.00	60.00 ✓
		Badkoobeh, Hamid	9/27/2019 ✓	3.00	60.00 ✓
		Lawson, Lorenzo	9/24/2019 ✓	3.00	60.00 ✓
		Totals	10.00		600.00
		Total Labor			600.00
				Total This Task	\$600.00 ✓

Task	04	Data Processing			
			Hours	Rate	Amount
		Data Processor			
		Schuhmacher, Lauren	7/29/2019	.25	45.00 ✓
		Schuhmacher, Lauren	8/8/2019	.25	45.00 ✓
		Schuhmacher, Lauren	9/18/2019	.25	45.00 ✓
		Schuhmacher, Lauren	9/25/2019	.25	45.00 ✓
		Totals	1.00 ✓		45.00
		Total Labor			45.00
				Total This Task	\$45.00 ✓

Task 11 Project Coordination

Project 700792001 FBC/BUS MNT FAC BAMORE ROAD EXTENSION Invoice 232346

			Hours	Rate	Amount	
Field Operations Manager						
Urban, Glenn	9/25/2019 ✓		.25	90.00 ✓	22.50 ✓	
Technician						
Pennington, Rachele	9/23/2019 ✓		.25	60.00 ✓	15.00 ✓	
Pennington, Rachele	9/25/2019 ✓		.25	60.00	15.00 ✓	
Totals			.75		52.50	
Total Labor						52.50
				Total This Task		\$52.50 ✓
Task 17	Laboratory Testing					
Compressive Strength			4.0 Tests ✓	@ 15.00 ✓	60.00	
Total Units					60.00	60.00
				Total This Task		\$60.00 ✓
Task 21	Reimbursables					
Nuclear Density Gauge						
9/27/2019			4.0 Hours ✓	@ 12.00 ✓	48.00 ✓	
Vehicle/Equipment Charge						
9/27/2019			10.0 Hours ✓	@ 10.00 ✓	100.00 ✓	
Total Units					148.00	148.00
				Total This Task		\$148.00 ✓
TOTAL THIS INVOICE						\$905.50 ✓

Project:
 Project No.:
 Project Manager:
 Billing Period:

Bamore
 700792001
 GTU
 Total August 31, 2019 Through September 27, 2019

Rpt. No.	Date	Staff	Task	Code	Quantity	Unit	Rate	Billing Description	Task Fee
87	9/24	LKL	Densities	1012	3	hour	60.00	Field/Laboratory Technician	\$ 180.00
			Vehicle	9101	3	hour	10.00	Vehicle Charge, hr	\$ 30.00
			Gauge	9108	4	hour	12.00	Nuclear Density Gauge	\$ 48.00
			PM	1009	0.25	hour	90.00	Field Operations Manager	\$ 22.50
			Concrete	1012	4	hour	60.00	Field/Laboratory Technician	\$ 240.00
			Vehicle	9101	4	hour	10.00	Vehicle Charge, hr	\$ 40.00
			Cylinders	2307	4	each	15.00	Compressive Strength Test - Concrete Cylinders	\$ 60.00
			PU Cyls	1012	3	hour	60.00	Field/Laboratory Technician	\$ 180.00
			Vehicle	9101	3	hour	10.00	Vehicle Charge, hr	\$ 30.00
			Clerical	1016	1	hour	45.00	Data Processing, Technical Editing or Reproduction	\$ 45.00
			Dispatch	1012	0.5	hour	60.00	Field/Laboratory Technician	\$ 30.00
Total August 31, 2019 Through September 27, 2019									\$ 905.50

FIELD DENSITY TESTS BY NUCLEAR METHOD

Project Name:	Bus Maintenance Facility Bamore Road Extension	Project No:	700792001
Client:	Fort Bend County	Report No:	87
Contractor:	ISI	Date Tested:	9/24/2019
		Technician:	Lorenzo Lawson

Moisture-Density Relation Data

Lab Curve No.	Soil Description	Compaction / Moisture Spec.	Maximum Dry Density, lbs/ft ³	Optimum Moisture, %	Test Method
41	Dark Gray Fat Clay w/Lime	95 / -2 to +2	84.8	31.3	ASTM D698

Field Test Equipment

Gauge Serial No:	Troxler / 34866	Moisture Standard:	625	Density Standard:	1953
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Test Results

ASTM D6938-08

Test No.	Test Location	Lift No.	Lab Curve No.	Probe Depth, in.	Wet Density, pcf	Dry Density, pcf	Moisture Content, %	Compaction, %
Paving Repair, Bamore Road								
1	100' South of Canyon Hills Lane	Final	41	6	109.0	82.3	32.4	97
2	115' South of Canyon Hills Lane	Final	41	6	104.8	80.8	29.7	95

Regular Hours	O.T. Hours
4	0



Glenn Urban

CONCRETE CYLINDER COMPRESSIVE STRENGTH

Project Name:	<u>Bus Maintenance Facility Bamore Road Extension</u>	Project No.:	<u>700792001</u>
Client:	<u>Fort Bend County</u>	Report No.:	<u>88</u>
Contractor:	<u>ISI</u>	Placement Date:	<u>9/26/2019</u>
Sample Location:	<u>STA 17+08 to STA 17+35</u>	Technician:	<u>Hamid Badkoobeh</u>
Placement Location:	<u>Paving Replacement, Northbound, STA 17+08 to STA 17+68</u>		

Supplier:	<u>Cemex</u>	Plant No.:	<u>4373A</u>	Mix Design No.:	<u>1421451</u>
Truck No.:	<u>3932</u>	Ticket No.:	<u>45374127</u>	Water Added, gal:	<u>15</u>
Time Batched:	<u>12:15 PM</u>	Time Sampled:	<u>1:15 PM</u>	Age of Concrete:	<u>60</u> Minutes
Sampled From:	<u>Truck Chute</u>	at	<u>10</u>	Yds of	<u>20</u> Total Yards

Slump, in.:	<u>5</u>	Specification:	<u>-</u>	Concrete Temperature, ° F:	<u>87</u>
Air Content, %:	<u>3.8</u>	Specification:	<u>-</u>	Air Temperature, ° F:	<u>85</u>
Unit Weight, pcf:	<u>-</u>	Specification:	<u>-</u>	Set No.:	<u>1 of 1</u>
Required Strength:	<u>3500</u>	psi at 28 days		Curing Method:	<u>Water Tanks</u>

Compressive Strength Test Method

Sample No.	Date Tested	Age Tested, days	Total Load, lb	Average Diameter, in.	Surface Area, in. ²	Compressive Strength, psi	Type of Fracture	Tested By
1A	10/3/19	7	101,940	6.02	28.46	3580	5	DL
1B	10/3/19	7	103,000	6.02	28.46	3620	5	DL
1C	10/24/19	28	126,840	6.02	28.46	4460	5	DL
1D	10/24/19	28	133,210	6.02	28.46	4680	5	DL

Cylinder Size: 6 x 12 4 x 8 3 x 6

Average compressive strength at 28 days conforms to Project Specifications. Yes No
 Initial curing temperature range, Min / Max, °F: 77 / 90
 Initial curing method: Covered in Wet Burlap
 Samples prepared and tested in accordance with:
 ASTM C-31, (excluding 10.1.2), C-138, C-143, C-172, C-173, C-231, C-39, C-1064

Regular Hours	O.T. Hours
4	0



Glenn Urban

DAILY ACTIVITY

Project Name:	Bus Maintenance Facility Bamore Road Extension	Project No.:	700792001
Client:	Fort Bend County	Report No.:	89
Contractor:	ISI	Date:	9/27/19
		Technician:	Hamid Badkoobeh

As requested, a Ninyo & Moore technician went to the referenced project to pick up one (1) set of four concrete cylinders cast on September 26, 2019.

The cylinders were returned to the laboratory for processing and placed in the water curing tanks.

Regular Hours	O.T. Hours
3	0



Glenn Urban