

WORK AUTHORIZATION NO. 1

PROJECT: 3412 On Call Materials Testing & Geotechnical Engineering Services

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated April 21, 2020 and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and Rodriguez Engineering Laboratories LLC (the "Engineer").

Part 1. The Engineer will provide the following Engineering Services set forth in Attachment "B" of this Work Authorization.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$20,000.00.

Part 3. Payment to the Engineer for the services established under this Work Authorization shall be made in accordance with the Contract.

Part 4. This Work Authorization shall become effective on the date of final acceptance and full execution of the parties hereto and shall terminate on July 31, 2022. The Engineering Services set forth in Attachment "B" of this Work Authorization shall be fully completed on or before said date unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Contract.

Part 6. County believes it has sufficient funds currently available and authorized for expenditure to finance the costs of this Work Authorization. Engineer understands and agrees that County's payment of amounts under this Work Authorization is contingent on the County receiving appropriations or other expenditure authority sufficient to allow the County, in the exercise of reasonable administrative discretion, to continue to make payments under this Contract. It is further understood and agreed by Engineer that County shall have the right to terminate this Contract at the end of any County fiscal year if the governing body of County does not appropriate sufficient funds as determined by County's budget for the fiscal year in question. County may effect such termination by giving written notice of termination to Engineer.

Part 7. This Work Authorization is hereby accepted and acknowledged below.

EXECUTED this ____ day of _____, 2020.

ENGINEER:

Rodriguez Engineering Laboratories

By: _____

Signature

Jose Melendez, P.E.

Printed Name

Lab. Engineer

Title

COUNTY:

Williamson County, Texas

By: _____

Signature

Bill Gravell, Jr.

Printed Name

Williamson County Judge

Title

LIST OF ATTACHMENTS

Attachment A - Services to be Provided by County

Attachment B - Services to be Provided by Engineer

Attachment C - Work Schedule

Attachment D - Fee Schedule

Attachment A - Services to be Provided by County

Williamson County personnel will provide project direction, review and oversight.

Attachment B - Services to be Provided by Engineer

The Scope of Services to be provided under the terms of this contract include:

Geotechnical Engineering Studies and Consultation

Construction Materials Engineering and Testing

A detailed description of the scope of services will be provided for each specific Project Assignment as listed in each Letter of Agreement.

Attachment C - Work Schedule

Work shall begin immediately upon receipt of agreement between County and Rodriguez on the work schedule and authorization to proceed on assigned services.

Attachment D - Fee Schedule

EXHIBIT D

RATE SCHEDULE

CONSTRUCTION MATERIALS TESTING SERVICES			
Consultant Name: RODRIGUEZ ENGINEERING LABORATORIES LLC		Unit	RATES
1. Testing of Soils and Base Materials			
1.1 Field Soil Density			
1.1.1	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not Included)	Per hr	\$60.00
1.1.2	Field Tech Time (on-site only, 2-hour minimum)	Per hr	\$60.00
1.1.3	Field Nuclear Density Test	Per ea	\$41.00
1.1.4	Field Density by Sand Cone Method (ASTM D1556)	Per ea	\$55.00
1.2 Bulk Sample Pick-Up			
1.2.1	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not Included)	Per hr	\$60.00
1.3 Laboratory Moisture Density Relationship			
1.3.1	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not Included)	Per hr	\$60.00
1.3.2	Field Tech Time (on-site only, 2-hour minimum)	Per hr	\$60.00
1.3.3	Moisture Density Relationship of Soil-Cement (ASTM D 558)	Per ea	\$275.00
1.3.4	Moisture Density Relationship (ASTM D 698) Standard Proctor Compaction Test	Per ea	\$275.00
1.3.5	Moisture Density Relationship (ASTM D 1557) (Modified Proctor Compaction Test)	Per ea	\$275.00
1.3.6	Moisture Density Relationship (TEX-113-E) Compaction Test	Per ea	\$275.00
1.3.7	Moisture Density Relationship (TEX-114-E, Part I) Compaction Test	Per ea	\$275.00
1.3.8	Moisture Density Relationship (TEX-114-E, Part II) Compaction Test	Per ea	\$308.00
1.4 Laboratory Testing of Soils			
1.4.1	Atterberg Limits (Liquid and Plastic Limits) (TEX-104-E, TEX-105-E, TEX-106-E)	Per ea	\$78.00
1.4.2	Bar Linear Shrinkage of Soils (TEX-107-E)	Per ea	\$66.00
1.4.3	CBR of Laboratory-Compacted Soils (ASTM D1883)	Per ea	\$495.00
	1.4.3.1 Each Additional Point	Per ea	\$165.00
1.4.4	Depth Check (Tex-140-E)	Per ea	\$20.00
1.4.5	Dry Unit Weight Test of Soils	Per ea	\$38.00
1.4.6	Field Gradation of Lime Soil (1.75, 0.75, No 4 Sieve) (in addition to hourly charge)	Per point	\$22.00
1.4.7	Hydrometer Analysis (ASTM D422), (mechanical sieve analysis is not included)	Per ea	\$116.00
1.4.8	Lime Series Curve (ASTM D 4318)	Per point	\$102.00
1.4.9	Natural Moisture Content	Per ea	\$22.50
1.4.10	Organic Content of Soils (Tex-148-E)	Per ea	\$185.00
1.4.11	Percent Passing No. 200 Sieve (TEX-111-E)	Per ea	\$51.00
1.4.12	PVR (Tex-124-E), testing is not included	Per ea	\$114.00
1.4.13	Resistivity of Soils (TEX-129-E)	Per ea	\$109.00
1.4.14	Sample Preparation (TEX-101-E)	Per ea	\$75.00
1.4.15	Sample Remolding	Per hr	\$60.00
1.4.16	Sieve Analysis (TEX-110-E)	Per ea	\$78.00
1.4.17	Shrinkage (Volumetric) (ASTM D427, ASTM D4943)	Per ea	\$81.00
1.4.18	Soil Cement or Lime Compression Test (TEX-120-E, TEX-121-E)	Per ea	\$82.00
1.4.19	Soil pH (Tex-128-E)	Per ea	\$65.00
1.4.20	Soil Specific Gravity (TEX-108-E)	Per ea	\$74.00
1.4.21	Stabilization Ability of Lime by Soil PH (TEX-121-E Part III) up to 6 points	Per ea	\$278.00
1.4.22	Sulfate Content (Tex-145-E)	Per ea	\$105.00
1.4.23	Texture Depth by Sand Patch (Tex-436-A)	Per ea	\$65.00
1.4.24	Unconfined Compression Test - Cohesive Soils (ASTM D2166)	Per ea	\$58.00
1.4.25	Unconfined Compression Test - Rock (ASTM D2938)	Per ea	\$81.00
1.5 Texas Triaxial Compression Test on Base Material TEX-117E, Part II, including the following:			
1.5.1	Molding, Curing, and Testing 9 Specimens	Per ea	\$1,395.00
1.5.2	Atterberg Limits (Liquid and Plastic Limits) (TEX-104-E, TEX-105-E, TEX-106-E)	Per ea	\$78.00
1.5.3	Bar Linear Shrinkage of Soils (TEX-107-E)	Per ea	\$66.00
1.5.4	Percent Passing No. 200 Sieve (TEX-111-E)	Per ea	\$51.00

EXHIBIT D

RATE SCHEDULE

CONSTRUCTION MATERIALS TESTING SERVICES			
Consultant Name: RODRIGUEZ ENGINEERING LABORATORIES LLC		Unit	RATES
1.5.5	Sample Preparation (TEX-101-E)	Per ea	\$75.00
1.5.6	Sieve Analysis (TEX-110-E)	Per ea	\$78.00
1.5.7	Wet Ball Mill (TEX-116-E)	Per ea	\$242.00
1.6	Report of Soil Test Results (includes clerical, engineering review/seal, etc.)	Per ea	\$83.00
2. Testing of Concrete and Aggregates			
2.1 Concrete Cylinder			
2.1.1	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not included)	Per hr	\$60.00
2.1.2	Field Tech Time (on-site only, 2-hour minimum)	Per hr	\$60.00
2.1.3	Cylinder Charge (per each)	Per ea	\$29.00
2.2 Concrete Coring			
2.2.1	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not included)	Per hr	\$60.00
2.2.2	Field Tech Time (on-site only, 2-hour minimum)	Per hr	\$60.00
2.2.3	Concrete Coring Equipment Charge	Per hr	\$42.00
2.2.4	Core Bit Surcharge (In addition to base equipment charge)		
	2.2.4.1 - 3-inch diameter core	Per inch	\$5.00
	2.2.4.2 - 4-inch diameter core	Per inch	\$6.50
	2.2.4.3 - 6-inch diameter core	Per inch	\$8.55
2.2.5	Concrete Core Strength Testing, Includes Core Curing and Preparation	Per ea	\$72.00
2.3 Laboratory Testing of Concrete and Aggregates			
2.3.1	Abrasion Test (TEX-410-A)	Per ea	\$265.00
2.3.2	Absorption of Aggregate	Per ea	\$40.00
2.3.3	Aggregate Gradation Analysis (TEX-200-F)	Per ea	\$78.00
2.3.4	Beam Flexural Strength (TEX-408-A)	Per ea	\$43.00
2.3.5	Coarse Aggregate Angularity	Per ea	\$82.00
2.3.6	Crushed Face Count (TEX-460-A)	Per ea	\$83.00
2.3.7	Decantation (Tex-406-E)	Per ea	\$37.00
2.3.8	Deleterious Materials (Clay Lumps/Friable Part I) Mineral Aggregate (Tex-413-A)	Per ea	\$73.00
2.3.9	Fine Aggregate Angularity	Per ea	\$82.00
2.3.10	Fineness Modulus of Fine Aggregate (Tex-402-A)	Per ea	\$45.00
2.3.11	Flat, Elongated Particles (ASTM D4791)	Per ea	\$82.00
2.3.12	Micro Deval Abrasion (TEX-461-A)	Per ea	\$245.00
2.3.13	Organic Impurities in Fine Aggregate (Tex-408-A)	Per ea	\$56.00
2.3.14	Pavement Thickness by Direct Measurement (Tex-423-A)	Per ea	\$30.00
2.3.15	Sand Equivalent (Clay Content) (Tex-203-F)	Per ea	\$95.00
2.3.16	Sieve Analysis of Fine and Coarse Aggregate (Tex-401-A)	Per ea	\$78.00
2.3.17	Soundness, Sodium, or Magnesium (ASTM C88, Tex-411-A)	Per ea	\$390.00
2.3.18	Specific Gravity of Aggregate	Per ea	\$60.00
2.3.19	Splitting Tensile Strength of Cylindrical Concrete Specimen (ASTM C496)	Per ea	\$43.00
2.3.20	Thickness of Concrete Cylinders or CTB Cores (ASTM C174)	Per ea	\$20.00
2.3.21	Unit Weight of Aggregate	Per ea	\$40.00
2.3.22	Unit weight of Concrete Specimens by Measurements	Per ea	\$15.00
2.4	Report of Concrete Test Results (includes clerical, engineering review/seal, etc.)	Per ea	\$83.00
3. Testing of HMAc and Liquid Asphalt			
3.1 HMAc Field Testing and Sample Pick-up			
3.1.1	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not included)	Per hr	\$60.00
3.1.2	Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not included)	Per hr	\$60.00
3.1.3	Field Tech Time (on-site only, 2-hour minimum)	Per hr	\$60.00
3.1.4	Longitudinal Joint Density with Density Gauge (Tex-207-F, VII) (Plus Tech time)	Per ea	\$78.00

MA

EXHIBIT D

RATE SCHEDULE

CONSTRUCTION MATERIALS TESTING SERVICES			
Consultant Name: RODRIGUEZ ENGINEERING LABORATORIES, LLC	Unit	Rate	
3.1.5 Mat Segregation with Density Gauge (Tex-207-F, Part V) (Plus Tech time)	Per ea	\$78.00	
3.1.6 Pavement Thickness Determination (Tex-140-E) (Plus Tech time)	Per ea	\$20.00	
3.1.7 Thermal Profile (Tex-244-F) (Plus Tech time)	Per ea	\$175.00	
3.2 Laboratory Testing of HMAC			
3.2.1 Asphalt Content by Extraction (TEX-210-F, T164)	Per ea	\$168.00	
3.2.2 Asphalt Content by Ignition Method (Tex-236-F)	Per ea	\$180.00	
3.2.3 Rolling Stripping Test (TEX-530-C)	Per ea	\$110.00	
3.2.4 Bulk Density of Compacted Specimens (TEX-207-F, Part I) (2 or 3 per set)	Per ea	\$62.00	
3.2.5 Cantabro Loss (TEX-245-F) (Molding is not included)	Per ea	\$112.00	
3.2.6 Extraction (Gradation & Asphalt Content) (Tex-200-F, Tex-210-F, D2172, T164)	Per ea	\$146.00	
3.2.7 Gradation of Aggregate from Extraction or Ignition (TEX-200-F)	Per ea	\$78.00	
3.2.8 Hamburg Wheel Tracker (TEX-242-F) (Includes Molding)	Per ea	\$566.00	
3.2.9 Hamburg Wheel Tracker (TEX-242-F) (Molded by Client)	Per ea	\$395.00	
3.2.10 Hveem Stability (TEX-208-F) (3 per set)	Per ea	\$62.00	
3.2.11 Indirect Tensile Strength (TEX-226-F) (Molding is not included)	Per ea	\$73.00	
3.2.12 Maximum Theoretical Specific Gravity, Rice Method (Tex 227-F)			
3.2.12.1 - Bag Sample	Per ea	\$56.00	
3.2.12.2 - Core Sample	Per ea	\$66.00	
3.2.13 Sand Equivalent (Clay Content) (Tex-203-F)	Per ea	\$95.00	
3.2.14 Specific Gravity, Bulk Core	Per ea	\$27.00	
3.2.15 Specific Gravity, Bulk Core (Vacuum Method)	Per ea	\$62.00	
3.2.16 Specimen Molding, Bulk Density, and Stability (3 per set) (Tex-206-F, 207-F, 208-F)	Per ea	\$186.00	
3.2.17 Specimen Molding by SGC (TEX-241-F) (2 per set)	Per ea	\$85.00	
3.2.18 Specimen Molding by TGC (TEX-206-F) (3 per set)	Per ea	\$62.00	
3.2.19 Thickness of HMAC cores by Direct Measurement	Per ea	\$13.00	
3.3 HMAC Coring			
3.3.1 Trip Charge (round-trip from REL Austin) (Vehicle or Mileage is not included)	Per hr	\$60.00	
3.3.2 Field Tech time (on-site only, 2-hour minimum)	Per hr	\$60.00	
3.3.3 Core, per inch thickness			
3.3.3.1 - 0"-6" depth @ 6"Ø (includes patching and sample prep.)	Per ea	\$98.00	
3.3.3.2 - > 6"-10" depth @ 6"Ø (includes patching and sample prep.)	Per ea	\$108.50	
3.3.3.3 - > 10"-14" depth @ 6"Ø (includes patching and sample prep.)	Per ea	\$140.00	
3.3.3.4 - > 14" depth @ 6"Ø (includes patching and sample prep.)	Per ea	\$140.00	
3.3.3.5 - Per inch beyond 14" depth @ 6"Ø (includes patching and sample prep.)	Per inch	\$6.00	
3.4 Laboratory Testing of Liquid Asphalt and Emulsions			
3.4.1 Absor Recovery (Extraction using Solvent is not included)	Per ea	\$240.00	
3.4.2 Breaking Index (Asphalt Emulsions)	Per ea	\$94.00	
3.4.3 Cement Mix	Per ea	\$71.00	
3.4.4 Demulsibility (Anionic or Cationic Emulsions)	Per ea	\$71.00	
3.4.5 Density of Emulsified Asphalt	Per ea	\$71.00	
3.4.6 Ductility of Bituminous Materials	Per ea	\$101.00	
3.4.7 Elastic Recovery Test	Per ea	\$82.00	
3.4.8 Float Test For Bituminous Materials	Per ea	\$82.00	
3.4.9 Kinematic Viscosity of Cut-Back Asphalt	Per ea	\$101.00	
3.4.10 Penetration of Bituminous Materials	Per ea	\$63.00	
3.4.11 Residue by Distillation (Cutback or Emulsified Asphalts)	Per ea	\$148.00	
3.4.12 Residue by Evaporation	Per ea	\$148.00	
3.4.13 Saybolt Viscosity of Emulsified Asphalt at 25°C (77°F)	Per ea	\$63.00	
3.4.14 Saybolt Viscosity of Emulsified Asphalt at 50°C (122°F)	Per ea	\$63.00	
3.4.15 Sieve Test of Emulsified Asphalt	Per ea	\$44.00	
3.4.16 Softening Point of Bitumen (Ring-and-Ball)	Per ea	\$101.00	

EXHIBIT D

RATE SCHEDULE

CONSTRUCTION MATERIALS TESTING SERVICES			
Consultant Name: RODRIGUEZ ENGINEERING LABORATORIES LLC			
		Unit	RATES
3.4.17	Storage Stability (24 Hrs)	Per ea	\$110.00
3.4.18	Specific Gravity of Emulsified Asphalt	Per ea	\$68.00
3.5	Report of Asphalt Test Results (includes clerical, engineering review/seal, etc.)	Per ea	\$83.00
4. Vehicle			
4.1	Vehicle		
4.1.1	Within City of Austin ETJ, within 50 miles (one-way) from REL	Per trip	\$57.00
5. Engineering Consultation			
5.1	Principal	Per hr	\$231.00
5.2	Project Manager/Professional Engineer	Per hr	\$148.00
5.3	Project Engineer	Per hr	\$115.00
5.4	Graduate Engineer	Per hr	\$86.00
5.5	Senior Engineering Technician	Per hr	\$75.00
5.6	Engineering Technician (Asphalt, Concrete, Soils, etc.)	Per hr	\$60.00
5.7	Clerical	Per hr	\$48.00

NOTES:

1. Minimum call-out charge for technician and equipment is 2 hours. Charges are accrued portal to portal.
2. The density test unit rate is based on a minimum of 3 tests per trip.
3. Transportation charges are applicable for all field testing assignments including sample pick up. But, if the technician is already at the job site, there is no sample pick up charges.
4. Subconsultants' fees shall be approved previous to work beginning.
5. Trip charge refers to the labor for the Engineering Technician to drive to site. This is charged hourly. Vehicle charges refer to cost of vehicle associated with the trip.

