WORK AUTHORIZATION NO. 1

PROJECT: Construction Materials Testing and Inspection for the Williamson County Georgetown Annex Project

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated <u>May 25, 2017</u> and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and <u>Professional Services Industries, Inc.</u> (the "Engineer").

- Part1. 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 \$60,000.00
- 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 <u>December 31, 2018</u> 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 1 day of 0008el, 2017.

ENGINEER:	COUNTY:
Professional Service Industries	Williamson County, Texas
By: Mul Palue Signature	By: Signature
Andrew Domke Printed Name	Dan A Gattis Printed Name
Branch Manager Title	Williamson County JudgeTitle

Attachment A

Services to be Provided by County

- 1. County will direct type of services to be provided.
- 2. County will provide timely reviews and decisions necessary to enable Professional Services Industries, Inc. to maintain an agreed upon project schedule as developed in Attachment C.
- 3. County will provide points of contact, to be identified upon Notice to Proceed.
- 4. County will provide project management.

ATTACHMENT B

Services to be Provided by Engineer

Summary of Scope of Services: PSI is to perform construction materials testing and inspection of the Williamson County Annex which includes but is not limited to the following:

- Building and Paving subgrade proofroll inspections, as well as, field density testing of compacted fill materials placed on subgrades, utility backfill, and associated lab testing
- Drilled pier inspections to check pier lengths and diameters, bearing strata confirmation and penetration depth, reinforcing steel inspection and associated concrete field tests, and fabrication of test cylinders.
- Perform reinforcing steel inspections to verify that the proper size, grade, length, spacing, cleanliness, and chairs are in place prior to concrete placements.
- Perform concrete placement inspections to check the strength of the concrete, as well as consistency, temperature, air content, and placement techniques.
- Perform masonry observations which includes the fabrication of mortar cubes, grout specimen, reinforcing steel placement observations, grouting techniques, and check masonry veneer tiebacks.
- Inspect structural steel bolted connections for tightness, as well as, weld inspection of welded connections on structural steel framing and related elements.
- Perform asphalt lab testing for material quality for parking lot paving and drives. Asphalt paving cores are sampled to verify density and thickness after placements.

Attachment C

Work Schedule

Work schedule is approximately 420 calendar days from notice to proceed.

ATTACHMENT D

FEESCHEDULE

Laboratory testing of soils, delivered to our laboratory, in accordance with ASTM or AASH procedures and project specifications. Moisture/Density Relationship of Soil (Proctor Test): a. ASTM D-698 (Standard)	\$ 185.00 \$ 185.00 \$ 185.00 \$ 185.00 \$ 65.00 \$ 65.00 \$ 65.00 \$ 65.00
Standard Moisture/Density Relationship, Atterberg Limits, Sieve Analysis, Percent Passing No.200 Sieve, Unified Soil Classification, Sample	
Preparation Each	\$ 535.00
Field testing of soils in accordance with ASTM or AASHTO procedures and proj specifications.	ect
Nuclear Density Test ASTM D2922Each	\$ 15.00
Moisture Content of Soil,Each	\$ 5,00
CONCRETE and AGGREGATES	
Laboratory testing of concrete, grout, mortar and aggregates, delivered to our laboratory, accordance with ASTM or TEX procedures and project specifications.	in
Concrete Cylinders (Cured and/or Tested in Compression)	\$ 18.00
Trimming of Cylinders for ASTM Procedure (Contractor Made Only)Each	\$ 25.00
Sieve Analysis of Coarse Aggregates Each	\$ 75.00
Sieve Analysis of Fine Aggregates Each	\$ 75.00
Specific Gravity and Absorption	\$ 55.00
Bulk Density Each	\$ 50.00
Materials Finer than #200 Sieve (Decant)Each	\$ 65.00
Sand Equivalent Each	\$ 65.00
Organic Impurities in Fine AggregateEach	\$ 65.00
Los Angeles AbrasionEach	\$ 225.00
Crushed Face Particle Count	\$ 75.00
Soundness of Aggregates (Magnesium or Sodium)Each	\$ 375.00
Field testing of appears in accordance with ACTAA was advantaged as in the second seco	
Field testing of concrete in accordance with ASTM procedures and project specifications.	¢ 600
Slump of Hydraulic Cement Concrete	\$ 6.00
Air Content of Freshly Concrete by the Pressure Method	\$ 6.00
Temperature of Freshly Mixed Portland-Cement Concrete	\$ 6.00
	\$ 6.00

ASPHALT

Laboratory testing of asphaltic samples delivered to our laboratory, in accordance with ASTM procedures and project specifications Extraction and Gradation Asphalt Coring Machine Thickness Determination of Asphalt Cores Density Determination and Thickness of Asphalt Cores Theoretical Specific Gravity (Rice Method) Each	\$ \$ \$	145.00 175.00 15.00 30.00 85.00
Asphalt StabilityEach	\$	45.00
MASONRY		
Laboratory testing of masonry samples delivered to our laboratory, in accordance with ASTM Procedures and project specifications Grout Prisms (Cured and/or Tested in Compression)	\$	18.00 18.00
FIELD TESTING AND OBSERVATION SERVICES		
Engineering Technician/ Inspector (minimum 4 hours) {To perform field density testing, field testing of concrete, slump, air content, temperature, unit weight, cast concrete cylinders, masonry testing, proof rolling observation, drilled piers, reinforcing steel, post tensioning placement and stressing, floor flatness, fireproofing, wood framing, and concrete batch plant observation)	\$	45.00
Asphalt Technician (minimum 4 hours) (To perform asphalt placement observation, extraction gradation, asphalt stability, maximum theoretical specific gravity, lab molded density, air void determination of cores)	\$	52.00
Structural Steel Technician {minimum 4 hours} {To perform visual weld observation, bolting inspection, shear stud verification, NOE of welds, and fabrication shop observation)	\$	95.00
Geotechnical Engineer (Site visits, consultation, special reports)Per Hour	\$	125.00
Professional Engineer (Site visits, consultation, special reports)Per Hour	\$	138.00
MANAGEMENT/TECHNICAL SERVICES		
Project Manager Per Hour Report Review Each Project Setup fee Each Final Close-Out Letter / Report- as needed Each		94.00 25.00 150.00 375.00

EQUIPMENT

Daily Equipment Charge"	\$ 40.00
Lime depth checks/field gradationsPer Test	\$ 45.00
Floor vapor emission test kits	\$ 40.00
Concrete Coring Rig ChargePer Day	\$ 150.00
Asphalt Coring Machine,,.Per Trip	\$ 175.00
GeneratorPer Trip	\$ 75.00
Core hole patching Per Hole	\$ 15.00
Floor Flatness Equipment	
Up to 10,000sf Each	\$ 550.00
Over 10,000sfPer SF	\$ 0.06
UT Flaw Detector MachinePer Day	\$ 130.00
UT Couplant (minimum 1 pint)Per Pint	\$ 25.00
PT Cleaner (minimum 1 can)Per Can	\$ 25.00
PTPenetrant (minimum 1 can)Per Can	\$ 25.00
MT Equipment	\$ 85.00
MT Powder (minimum 1 lb)Per Pound	\$ 25.00
Transportation ChargePer Trip	\$ 40.00

^{*}Charges for the use of nuclear density gauge when testing soils compaction and for concrete equipment when performing concrete testing (slump cone, slump board, air content meter, wheel borrow, etc.)