#### WORK AUTHORIZATION

## WORK AUTHORIZATION NO. \_\_1\_\_

PROJECT: Construction Observation and Material Testing Engineering Services for the Williamson County Exposition Center Project

This Work Authorization is made pursuant to the terms and conditions of the Williamson County Contract for Engineering Services, being dated <u>December 3, 2015</u> and entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (the "County") and <u>Alliance Geotechnical Group of Austin 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 <u>\$45,000</u>.

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>September 30, 2016</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 day of	, 20
ENGINEER:	COUNTY:
Alliance Geotechnical Group of Austin Inc.	Williamson County, Texas
By: Signature	By:Signature
Wayste A. Edited Sprinted Name	Printed Name
MANAGING PARTIES	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

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Revised Date: 12/11/15

<sup>2.</sup> County will provide a single point of contact, to be identified upon Notice to Proceed.

## Attachment B - Services to be Provided by Engineer

The scope of services to be provided by the Engineer is as defined in the enclosed October 23, 2015 letter from Alliance Geotechnical. The Engineer shall provide construction observation and materials testing services on the Taylor Exposition Center required by Chapter 17 of the International Building Code (2012 Edition), the plans and specifications of the Project and as directed by the County.



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Georgeanical Engineering

\* Environmental Consulting

Construction Materials Engineering and Testing

October 23, 2015

Williamson County Commissioners Court Attn: Mr. Robert B. Daigh, P.E., Senior Director of Infrastructure 3151 SE Inner Loop Georgetown, Texas 78626

> Re: WILCO / Taylor Exposition Center Taylor, Texas Alliance Geotechnical Group of Austin Proposal No. P15-1004E (Revised)

Dear Mr. Daigh:

The attached fee schedule and not-to-exceed (revised) proposal for the construction observation and materials testing services on the Taylor Exposition Center are attached for your review. The proposed scope of work, type and frequency of testing were based upon a review of the project plans dated September 16, 2015, the project specifications dated September 25, 2015 and the Balcones Geotechnical Soils Report dated September 9, 2015.

This not-to-exceed proposal does not include retesting or re-inspections required due to work or materiels found to be non-compliant with the project plans and specifications. If errors and/or omissions in the type and/or frequency of the observation and testing services are noted, please advise the undersigned at the earliest opportunity so that adjustments can be made to the scope and subsequent fees for the actual anticipated services needed.

We appreciate the opportunity to present this information for your consideration and look forward to an opportunity to be of service.

Respectfully,

Alflance Geotechnical Group of Austin, Inc. TBPE Firm No. 11290

Wayne A. Eddins

HOSING ON

Managing Partner

Dish Williamson County - Mr. Robert B. Daigh, P.E.

WAEInk

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200 Mustang Cove . Taylor, Texas 76574 Tel: 512-281-4688 + Fax: 512-281-4191

Project Name: Williamson County Exposition Center

Proposal No.: P15-1004C (Revised)

Estimated Budget: \$88,112.00 October 23, 2015 Date:

#### SECTION 31 00 00 - EARTHWORK

(Estimate 50 production days to complete cuts, construct building pads and construct earthen berms (Estimate 30 miscellaneous trips for density testing (utility backfill, culvert backfill, utility tic-ins, manholos, etc.)

				Sub-Total	5	26,480.00	\$26,480.00
40	Engineering Oversight/Report Review	(0)	\$25.00	/report	\$	1,000.00	
	Project Manager Hours	(2)	\$95.00		\$	1,900.00	
20	Administrative/Clerical	@	\$48.00	/hour	\$	960.00	
	NICET Certified Technician Saturday OT Hours	@	\$75.00	/hour	\$	1,800.00	
	NICET Certified Technician OT Hours	@	\$60,00		\$	1,200.00	
	NICET Certified Technician Reg. Hours	(0)	\$48.00	/hour	\$	9,600.00	
	Vehicle Charges	@	\$30.00	trip	\$	1,500.00	
	In Place Density Tests (TEX 115-E)	@	\$20.00		\$	5,000.00	
	Gradation (TEX 110-E)	@	\$75.00	/test	\$	600.00	
	Moisture Content Tests (TEX 103-E)	@	\$15,00	/test	\$	120.00	
	Atterberg Limits (TEX 104-E, TEX 106-E)	@	\$75.00	/test	\$	600.00	
	Moisture/Density Relationships (TEX 114-E)	@	\$250.00	/test	\$	1,000.00	
4	Moisture/Density Relationships (TEX 113-E)	@	\$300.00	/test	5	1,200.00	

#### SECTION 31 00 00 - SITE CONCRETE

(Estimate 15 Misc. Placements for pavements, sidewalks, wing walls, etc.) (Estimate approximately 750-900 cy site concrete) (Estimate 35 Sets of 4 Cylinders each w/ Alr, Slump, Temp) (Estimate 10" Flexible Base beneath pavement & sidewalks) (Estimate 3,500 if of curb placements, 10 placements, 2 hours/placement 4 cylinders/placement)

180 Concrete Cylinders
45 Air Content, Slump, Temp (TEX 414-1, 415-1 and 418-1) \$16.00 /each \$20.00 /each 2,880.00

				Sub-Total	\$	18,278.00	\$18,278.00
40	Engineering Oversight/Report Review	@	\$25.00	/report	\$	1,000.00	
	Project Manager Hours	@	\$95.00	/hour	\$	1,900.00	
12	Administrative/Clerical	(0)	\$48.00	/hour	\$	576.00	
	Vehicle Charges (including cyl. p/up)	@	\$30.00		\$	1,500.00	
	Reinforced Concrete Certified Tech (Reinforcing Steel Insp.)	@	\$48.00	/hour	5	1,152.00	
	ACI Certified Tech. Reg. Hours (Casting & Sample p/up)	@	\$48.00	/hour	\$	3,600.00	
	NICET Certified Technician Density Testing	@	\$48.00		5	1,920.00	
	Triaxial (TEX 117-E, TEX 118-E, TEX 131-E)	@	\$1,500.00	/each	5	1,500.00	
1	Wet Ball Milt (TEX 116-E)	@	\$350.00	/each	\$	350.00	
50	In Place Density Tests (TEX 115-E)	@	\$20.00	/each	S	1,000.00	
7.0	(All Content Stump, Temp (TEX 414-1, 415-1 and 416-1)	1021	@ZU.00	reacir	0	500.00	

## III SECTION 31 00 00 - ASPHALT PAVEMENT

(Estimate 68,000 sf of Asphalt Pavement Base Bid & Alt. 17)
(Estimate 68,000 sf of Flexible Base layer, total of 10" / 2 Lifts & 4 Trips per lift) (Estimate 3 Days of Laydown Operations)

				Sub-Total	\$	9,088.00	\$9,088.00
12	Engineering Oversight/Report Review	@	\$25.00	/report	5	300.00	
	Project Manager Hours	(2)	\$95.00	/hour	S	380.00	
4	Administrative/Clerical	[@]	\$48.00	/hour	S	192.00	
	Vehicle Charges	@	\$30.00	trip	S	360 00	
10	In-Place HMA Thickness/Density (TEX 140-E)	@	\$50.00	/each	Ş	500.00	
	Lab Density & Stability, Set of 3 (TEX 207-F, TEX 208-F)	1@	\$50.00	/set	\$	150.00	
	Maximum Theoretical (Rice) Gravity (TEX 227-F)	@	\$60.00	/each	S	180.00	
_ 1	Hamburg Wheel (TEX 242-F)	IQ)	\$600.00	/each	S	600.00	
	Extraction/Gradation (TEX 210-F, TEX 210-F, Part II)	@	\$175.00		S	350.00	
	In Place Density Tests (TEX 115-E)	@	\$20.00	/each	S	1,500 00	
	TxDOT I-B Certified Technician (OT Hrs.)	@	\$70.00	Thour	3	560 00	
24	TxDOT I-8 Certified Technician (Reg. Hrs.)	(2)	\$56.00	/hour	S	1,344 00	
	TxDOT I-A Certified Technician (OT Hrs.)	(0)	\$70.00	/hour	\$	560.00	
24	TxDOT I-A Certified Technician (Reg. Hrs.)	a	\$56.00	(pont	\$	1,344 00	
	NICET Certified Technician Density Testing	(2)	\$48.00	/bour	\$	768.00	

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#### IV SECTION 03-30-00 - CAST-IN- PLACE STRUCTURAL CONCRETE

(Estimate 35,000 (+/-) SF of 6" Concrete Slabs on Ground in Base Bid)
(Estimate 82,000 (+/-) SF of 4" & 6" Concrete Slabs on Ground in Add Ait. Bid Items)
(Estimate 4 cyls./75 CY or fraction thereof)
(Estimate 1,500 by (+/-) Concrete
(Estimate (total of 8 Concrete Slab Placements)
(Estimate 12 Concrete Placements for Footings ® 2 Hrs. & 4 Cylinders Ea,)

				Sub-Total	\$	14,865.00	\$14,866.00
24	Engineering Oversight/Report Review	13	\$25 00	The second secon	8	600.00	
12	Project Manager Hours	<b>60</b>	\$95.00	dhour.	\$	1,140.00	
4	Project Engineer Hours for Mix Design Reviews	200	\$130.00		\$	520.00	
12	Administrative/Clencel	520	348 00	ก้าอนา	\$	576.00	
25	Valuele Charges (Including Cylinder plup)	20	\$30.00	Aup	5	750.00	
24	ICC Certified Structural Reinforced Concrete Tech. (Reg.)	520	348 03	mour	5	1,152.00	
20	ACI Certified Technician Hours (O.1.)	20	\$50.03	/hour	5	1,200 00	
150	ACI Certified Technician Hours (Reg.)	520	\$48.00	mour	\$	7,200.00	
46	Concrete Cylinders for Concrete Footings	20	\$18.00	/test	\$	864.00	
48	Concrete Cylinders for Slabs/Bearns	180	318.00	itest	\$	864.00	

#### V SECTION 04 05 13 MORTAR & GROUT

(Estimate 30 Production Days for CMU Block Installation) (Estimate 3 Mortar Cubes & 4 Grout Cubes per day's production)

				Sub-Total	\$	9.830.00	59.830.00
60	Engineering Oversight/Report Review	20	325.00	/report	\$	1,500.00	
10	Project Manager Hours	82	\$95 00	rhour	\$	990.00	
15	Administrative/Clencal	25	\$49.00	mour	\$	720.00	
30	Vehicle Charges - including sample pick-up	25	\$30.00	dzip.	S	900.00	
50	NICET Centried Tech. Hours (Rog.) including Reinf. Steel	925	\$48.00	rhour	5	2,400.00	
120	Grout Cubes	33	\$16.00	/each	\$	1,920.66	
90	Morter Cubes	(3)	\$16.00	/each	\$	1,440.00	

# VI SECTION 05 12 06 - STRUCTURAL STEEL WELDING/BOLTING INSPECTIONS (Periodic - as achieduled) (Estimate 10 Trips to the site, 5 hours per trip)

50 CWI (Sub-Consultant) Hours	16	\$85.00 shour	5	4.250 00	
10 Vehicle Charges (Sub-Consultant)	<u>@</u>	\$55,00 /trip	\$	550.00	
5 Administrative/Clerical	6	540 00 /hour	8	240 00	
4 Project Manager Hours	@	\$95.00 /hour	\$	380 00	
10 Engineering Oversight/Report Review	(2)	\$25.00 /report	\$	250.00	
		Sub-Tota	\$	5,670.00	\$5,670.00

## VII PROJECT OVERSIGHT

95 EO /hour	Ş	3,980,88	2 3 900 00
23	COLUMNIA	DO 1137711 2	robasan 3 3.300 ms

TOTAL

\$88,112.00

#### NOTES:

- 1. Over the rates of 1.25 kmss froings for hourly rate will be charged for house worked over angle (6) froms per day Monthly than Fratey or any une before 7.00 similar when 5.00 p.m. Section performed on Seturdays and Sundoys will be called at 1.5 kmss. The regular hourly rate. Secretor bettermed on recognized holdsys will be called at 2.6 kmss trained year.
- 2. All laboratory test fees are FIO 8, our laboratory, individual chalge for sample promp a teste of Williamson Guerry may apply
- 1. Project Engineer to reviewlevaluate/sign and seal reports will be taked in \$25/Report.
- 4. Additional tests not specified in this proposal will be encled upon inquest
- This proposal does not include any costs associated with stand-by, non-readness charges, and/or hips for re-tosts of the
  previous failing tests.
- 8 An echannal charge will be made for stop movertions made pulsate of Wilherman County A per dam, charge of \$120,00 will be competified any ensections. Poll will depart an exemple stay.

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## Attachment C - Work Schedule

Work will be completed within the next year.

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## Attachment D - Fee Schedule

WILLIAMSON COUNTY EXPO CENTER UNIT RAT	E SHEET	2015			
Personnel	Unit	Reg	. Hr. Rate	<u>o.</u>	T. Rate
No. of Artist of	i.		145.00		
Principal	원리	5	195.00		
Senior Professional Engineer	Hr.	\$	195.00		
Professional Engineer	Hr.	S	130.00		
Project Manager	Hr.	5	95.00		
Laboratory Manager	Hr.	5	95.00		
Engineer In Training (E.I.T.)	Hr.	5	85.00		
Certified Welding Inspector (CWI)	Hr.	\$	85.00		
TXOOT Level I-A	Hr.	5	56.00		70.0
TxOOT Level 1-8	Ht.	5	56.00		70.0
NICET Certified Soils/Concrete Technician (C.E.T.)	Hr.	\$	48.00	\$	60.0
ACI Certified Strength Testing or Aggregate Testing Technician (C.E.T.)	Hr.	\$	48.00	5	60.0
Administrative Assistant	$H_{\ell_{\pi}}$	S	48.00		
Project Engineer - Report Review	Rept.	\$	25.00		
Vehicle Charge	Trip	\$	30.00		
Vehicle Charge	Day	\$	50.00		
Testing Services - Soils	<u>Unit</u>	U	nit Rate		
Moisture Content (Tex 103-E)	Eu.	\$	20.00		
Tex 114 E Proctor	Ēā.	S	250.00		
Sieve Analysis (Tex 110-E, Pt. 1 Dry)	Ea.	\$	50.00		
Sieve Analysis (Tex 110-E, Pt. 2 Wet)	Ea.	\$	80.00		
Atterberg Limits (Tex 104-E, Tex 105-E, Tex 106-E)	Ea.	\$	75.00		
In-Place Density Tests (Tex 115-E)	Eq.	S	20.00		
Hydrometer Analysis (AASHIO I-88)	Ea.	\$	450.00		
Soil pH (Tex 128-E)	Ea.	\$	50.00		
Permeability of Sall	Ea.		350.00		
Unear Bar Shrinkage	Eo.	\$	75.00		
Testing Services - Concrete	Unit	U	nit Rate		
the standards of the all physics down at the standards of the standards	۳.		11 24 24.00		
Sieve Analysis of Fine & Course Aggregate (Tex 401-A, Tex 402-A)	Ea.	- \$	80,00		
SSD Specific Gravity and Absorption of Aggregates (Tex 403-A)	Ea.	\$	80 00		
Unit Weight (Tex 404-A)	€u.	\$	75.00		
Material Finer than No. 200 Sieve Analysis (Tex 406 A)	Ea	. \$	75.00		
Organic Impurities in Fine Aggregate (Tex 408-A)	Ea.	\$	85.00		
Los Angeles Abrasion Test (Tex 410-A)	Ea	\$	350.00		
Concrete Cylinder Compressive Strength (Tex 418-A)	Ea.	\$	13.00		
Concrete Flexural Beam Strength Test (Fex 419-A)	Ea.	Ş	25.00		
2" x 2" Martar Cubes	Eu.	\$	16.00		
3.25" x 6.25" Grout Prisms	Ea.	5	16.00		
CNU Block Prism Testing	Ea.	5	350.00		

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Testing Services - Hot Mixed Asphaltic Concrete (HMAC)	Unit	ι	Init Rate
	_		
Sample Preparation	Ea	. 5	50.00
Gradation (Tex 210-F, Part 1 & 2)	Ec.	\$	200,00
Hamburg Wheel (Tex 242-F)	Ea	\$	600.00
Extraction/Gradation (Tex 236-F)	EG.	\$	225.00
Mixing (Tex 205-F)	Set of 3	\$	75.00
INVEEM Stability (Tex 207-F, Tex 208-F)	Set of 3	\$	50.00
Laboratory Molded Density (Tex 207-F, Parts)	Set of 3	\$	45.00
Max Theoretical (Rice) Specific Gravity (Tex 227-F)	Ea.	\$	60.00
Thickness (Tex 140-E)	Ea.	\$	50.00
% Air Volds - In Place	Ea.	\$	75.00
16 Theoretical Density - In Place	Ea.	\$	75.00
Moisture Content (Tex 212-F)	Ea.	\$	25,00
Coving Rig / Core Bit Charge	Ea.	\$	175.00
6" φ Core including Patching & Sample Prep up to 6" Thick	frt.	5	90.00
* N Core Including Patching & Sample Prep from 6" to 10" Thick	fn.	5	105.00
3" Φ Core(Per Inch)	In.	15	5.00
4"   CorelPer Inch	fri.	ំន	6.00
E" Φ Core(Per Inch)	fo.	\$	8.00
Laboratory Testing Services - Flexible Base Material	Unit	L	nit Rote
	MINE.		
Tex 113-E Proctor	Ea.	5	300.00
Sample Preparation (Tex 101-E)	£a.	\$	50.00
Atterberg 1/mits	Eo.	S	75.00
Sieve Analysis (Tex 110-E, Pt. 1 Ory)	Ea.	S	50.08
Sieve Analysis (Tex 110-E, Pt. 2 Wet)	£a.	S	80.00
Moisture Content (Tex 103-F)	£a.	\$	20.00
Thickness (Tex 140-E)	Eo.	s	50.00
Wet Ball Mill Test (Tex 116-E)	£α.	\$	250.00
Texas Trioxial (Tex 117-E, Tex 118-E, Tex 131-E)	ξο.	5	2,250.00

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