

**AMENDMENT NO. 5**

**TO THE PROFESSIONAL SERVICES AGREEMENT  
SITE ENVIRONMENTAL/ENGINEERING SERVICES FOR  
CAPITOL COMPLEX AND NORTH AUSTIN COMPLEX PROJECTS  
BETWEEN  
THE TEXAS FACILITIES COMMISSION  
AND  
COBB FENDLEY & ASSOCIATES, INC.**

**This Amendment No. 5** to the Professional Services Agreement for Site Environmental/Engineering Services (hereinafter referred to as “Amendment No. 5”) is entered into by and between the Texas Facilities Commission (hereinafter referred to as “TFC”), a state agency located at 1711 San Jacinto Boulevard, Austin, Texas 78701, as Owner (as defined in UGC, Section 1.28), and Cobb Fendley & Associates Inc. (hereinafter referred to as “SSE”), with its principal place of business located at 505 East Huntland Drive, Suite 100, Austin, Texas 78752 (hereinafter referred to collectively as the “parties”), to amend the original Professional Services Agreement between the Parties, as amended.

**RECITALS**

WHEREAS, on June 1, 2016, the parties entered into that one certain *Professional Services Agreement for Site Environmental/Engineering Services for Capitol Complex and North Austin Complex Projects Between the Texas Facilities Commission and Cobb Fendley & Associates, Inc.* (hereinafter referred to as the “Agreement”); and

WHEREAS, the parties entered into Amendment No. 1 dated October 25, 2016, Amendment No. 2 dated November 17, 2016, and Amendment No. 3 dated May 10, 2017, and Amendment No. 4, dated June 1, 2017; and

WHEREAS, the parties now desire to enter into Amendment No. 5 for the purpose of providing for further Additional Services and Fees as more particularly described below;

NOW THEREFORE, the Parties hereby agree as follows:

1. Unless clearly provided otherwise herein, all terms and phrases in initial caps herein shall have the same meaning as the terms and phrases with initial caps in the Agreement.
2. The parties agree to modify ARTICLE II – DESCRIPTION OF PROJECTS AND SCOPE OF SERVICES by adding Sections 2.2.12, 2.2.13, and 2.2.14, which shall read in their entirety as follows:

“2.2.12. Geotechnical Instrumentation and Monitoring. SSE agrees to provide the professional EOR services described below and more particularly set forth in “Exhibit A-5,” SSE’s

Proposal dated January 15, 2018 (42 pages), attached hereto and incorporated herein for all purposes.

2.2.12.1. Implement a Geotechnical Monitoring Program during Phase 1 of the Capitol Complex Project Construction to provide pre-construction baseline vibration and position data for comparison with construction and post-construction data.

2.2.12.2. Measure and monitor ground surface, retention system, and monitor for existing structure movements during construction.

2.2.12.3. Determine if existing foundations have potentially been affected by construction activity.

2.2.12.4. Potentially forewarn TFC of unforeseen conditions that may require remedial or precautionary measures.

2.2.12.5. Monitor the performance of the Contractor, Zachry Construction Corporation's, excavation support system and monitor construction related vibration.

"2.2.13. Storm/Wastewater Design Services. SSE agrees to provide the professional EOR services described below and more particularly set forth in "Exhibit A-5."

2.2.13.1. Create a baseline file using the information from the Package 2 Utilities Concept Design for the SWPPP and the E&S and Tree Protection plan, as well as additional survey data files that will be required.

2.2.13.2. Stormwater Extension SWPPP Design Construction Drawings and Specifications will consist of the following:

2.2.13.2.1. SWPPP –prepare the SWPPP and the E&S and Tree Protection plan sheets for the project.

2.2.13.2.2. Quantity take-off – will be performed to prepare a bid form. A quantity take-off will be performed at 60%, 90% and 100% submittals to support cost estimate development.

2.2.13.2.3. Cost Estimate – coordinate with the CMR on the opinion of probable construction cost for the E&S and Tree Protection design elements for the 60% (+1-15%), 90% (+1- 10%) and 100% (+1- 5%) submittals.

2.2.13.2.4. QA/QC - perform internal quality control reviews on the SWPPP and the E&S and Tree Protection plans prior to each submittal to TFC & the City of Austin.

2.2.13.2.5. Prepare four (4) submittal packages - assemble plans and specifications and submit to the City of Austin to review.

2.2.13.2.6. Respond to TFC; Master A/E, Page Southerland Page Southerland Page, Inc.; CMA, Balfour Beatty Construction, LLC; and CMR, Zachry Construction Corporation comments. Review comments provided by City of Austin and review agencies, and prepare a written response to the comments for inclusion with the subsequent submittal.

2.2.13.7. Meet with the Austin Utility Location Coordination Committee (hereinafter the "AULCC") for a total of three (3) times for their coordination in the approval of the project."

3. The parties agree to modify ARTICLE IV – CONSIDERATION; PAYMENT CONDITIONS, SECTION 4.1 – CONTRACT LIMIT – FEES AND EXPENSES, SUBSECTION 4.1.1 – FIXED FEE, by reflecting additional compensation to the SSE for services provided under this Amendment No. 5 in the amount of One Million Four Hundred Eighty-Six Thousand Seven Hundred Forty and No/100 Dollars (\$1,486,740.00), thus increasing the total amount from Eight Million One Hundred Nine Thousand Four Hundred Thirty Two and No/100 Dollars (\$8,109,432.00), to a total not to exceed amount of Nine Million Five Hundred Ninety-Six Thousand One Hundred Seventy-Two and No/100 Dollars (\$9,596,172.00).

4. The parties agree to modify ARTICLE X – INSURANCE, SECTION 10.2 – REQUIRED INSURANCE COVERAGES, so that the Owner’s requirements of insurance for this Amendment No. 5 during Calendar Year 2018, shall be those set forth in “Exhibit M – Amendment No. 5,” attached hereto and by this reference incorporated herein for all purposes, as reiterated in SSE’s Insurance Letter dated February 15, 2018 (1 page) attached hereto as “Exhibit B-5,” and by this reference, incorporated herein for all purposes.

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5. All other terms and conditions of the Agreement not expressly amended herein shall remain in full force and effect.

**TEXAS FACILITIES COMMISSION**

**COBB FENDLEY & ASSOCIATES, INC.**

By: JSR

By: DWARTH

John S. Raff

Dan Warth, P.E.

Interim Executive Director

Regional Manager, Central Texas

Date of execution: 2-12-18

Date of execution: 3.6.18

G.C. NRG

Dir. MY

D.E.D. R

TFC Contract No. 16-101-005  
Amendment No. 5  
Cobb Fendley & Associates, Inc.  
Project No. 16-018-8001

**TFC CONTRACT NO. 16-101-000**

**AMENDMENT NO. 5**

**EXHIBIT A-5**

**SSE'S PROPOSAL DATED JANUARY 15, 2018 (42 PAGES)**



January 15, 2018

F. Keith Hall AIA, LEED AP, CTCM  
Sr. Project Manager  
Texas Facilities Commission - Facilities Design & Construction  
1711 San Jacinto Boulevard  
Austin, Texas 78701

RE: **TFC Project 16-015-8000 – CapCom – Monitoring Plan Implementation and Storm/Wastewater Design Services**

Dear Mr. Hall:

Cobb, Fendley & Associates, Inc. ("CobbFendley") is pleased to submit this scope and fee proposal for the professional services required to implement the geotechnical monitoring plan, design the stormwater extension in 18<sup>th</sup> Street and the wastewater replacement in 17<sup>th</sup> Street in the Capitol Complex (CapCom).

The estimated fee for the Monitoring Plan Implementation and Storm/Wastewater Design Services is provided in Attachment 1.

The scope and assumption details for the services are described in Attachment 2. The following scopes of service are included:

- Implementation of the Geotech Monitoring Plan (CobbFendley, Balcones Geotechnical, LLC and a subcontractor)
- Design and Permitting support for the Stormwater Extension in 18<sup>th</sup> Street (required since the existing 18<sup>th</sup> Street stormwater options are impracticable) (CobbFendley and MWM DesignGroup, Inc.)
- Design and Permitting support for the Wastewater Line Replacement in 17<sup>th</sup> Street (requested by AWU during SER review) (CobbFendley and MWM DesignGroup, Inc.)

The "Specifications for Geotechnical Instrumentation and Monitoring" (Balcones Geotechnical, Revised January 5, 2018) is provided as Attachment 3. Attachment 4 contains the rate sheets for the allowance line item services.

During the procurement for subcontractors required to procure, install and maintain the instrumentation for the program and the electronic results reporting for 24 months (February 2018 through January 2020), CobbFendley will perform good faith efforts to identify HUB subcontracting opportunities. Based on the outcome of the good faith effort, CobbFendley's HUB Subcontracting Plan will be amended accordingly.

Project specific insurance through 2018 is included in Amendment 4. Project insurance for the Geotech Monitoring Plan Implementation in 2019 and 2020 will be included in a future amendment or the project-specific requirements will be changed so the firms can carry their normal insurance limits.

We anticipate beginning work 5 days after notice to proceed (NTP). We will develop an integrated schedule for the Monitoring Plan Implementation and Storm/Wastewater Design Services in conjunction with the Master Architect/Engineer, Construction Manager Agent (CMA), and Construction Manager-at-Risk (CMR).

We look forward to implementing these important support activities on these very significant projects for TFC. These projects will transform the Capitol Complex and we are pleased to be working with the TFC.

Sincerely,  
COBB, FENDLEY & ASSOCIATES, INC.

  
Dan Warth, P.E.  
Vice President/Principal

CC: Janie Gribble, AIA, LEED AP



**ATTACHMENT 1:**

**Monitoring Plan Implementation and Storm/Wastewater Design Services**

<b>Implementation of the Geotechnical Monitoring Program</b>	<b>\$1,236,740.00</b>
Project Management	\$75,760.00
Finalize Program, BID Support on the Monitoring Contract (includes Balcones)	\$36,160.00
Value Engineering, Strategy Evaluation, Rebidding (Allowance - includes Balcones)	\$26,220.00
Monthly Meetings (Feb 2018 through Jan 2020)	\$62,000.00
Alarm Support	\$13,000.00
Monitoring Subcontractor (procurement, installation, maintenance, electronic results reporting - estimate for 24 months from Feb 2018 through Jan 2020)	\$1,000,000.00
Report	\$23,600.00
<b>Stormwater Extension in 18th Street (Allowance)</b>	<b>\$130,000.00</b>
<b>Wastewater Line Replacement in 17th Street (Allowance)</b>	<b>\$120,000.00</b>
<b>Insurance Costs</b>	<b>\$0.00</b>
CobbFendley (Insurance coverage to 2018 in Amendment 4)	\$0.00
Balcones (Insurance coverage to 2018 in Amendment 4)	\$0.00
<b>Total (Including Allowances)</b>	<b>\$1,486,740.00</b>
<b>Allowance Subtotal</b>	<b>\$276,220.00</b>

Note 1: Project specific insurance to 2018 is included in Amendment 4. Project insurance for the Geotech Monitoring Plan Implementation in 2019 and 2020 will be included in a future amendment in 2018.



**ATTACHMENT 2**

**Scope of Services for Professional Services at the CapCom**



**Management and Implementation of the Geotech Monitoring Plan  
Cobb, Fendley & Associates, Inc. and Balcones Geotechnical, LLC**

**SCOPE**

This scope of work is for management and implementation of the Monitoring Plan from February 2018 through January 2020 (24 months), and management for the Stormwater Extension in 18<sup>th</sup> Street and Wastewater Line Replacement in 17<sup>th</sup> Street.

The scope includes implementation of the Geotechnical Monitoring Program (Attachment 3) during the Phase 1 Capitol Complex (CapCom) construction. This geotechnical monitoring instrumentation program will provide a pre-construction baseline vibration and position data for comparison with construction and post-construction data; measure and monitor ground surface, retention system, and monitor for existing structure movements during construction; determine if existing foundations have potentially been affected by construction activity; potentially forewarn of unforeseen conditions that may require remedial or precautionary measures; and monitor the performance of the contractor's excavation support system and monitor construction related vibration.

Within 5 days of NTP, CobbFendley will initiate the procurement effort for the monitoring subcontractor to provide the procurement, installation and maintenance, and electronic results reporting for the Geotechnical Monitoring Program for 24 months (approximately from February 2018 through January 2020). It is anticipated the procurement process will take 3 weeks, and contract negotiations and award an additional 2 weeks.

CobbFendley will perform good faith efforts for any subcontracting opportunities and our HUB Subcontracting Plan will be amended accordingly.

Pre-construction baseline monitoring that includes inspections and photographic documentation of existing structures and vibration and position data collection will begin approximately mid-March 2018 (assuming NTP before end of January and all required equipment is readily available off the shelf), and will allow for a 1 month pre-construction survey ahead of the anticipated start of excavation at 1801 Congress excavation in late April 2018.

Meetings during the implementation of the Geotechnical Monitoring Program include the following:

1. Monthly project status meetings (24 months – includes developing the agendas/minutes, maintaining the schedule, preparing materials and participating in the meetings)
2. Design review meetings (30%, 60% and 90% design review meetings for both the stormwater and wastewater design efforts including developing agendas/minutes, maintaining the schedule, preparing materials and participating in the meetings)



**Stormwater Extension in 18<sup>th</sup> Street SWPPP  
Cobb, Fendley & Associates, Inc.**

This Scope of Work is for providing the Professional Engineering Services for the preparation of the Stormwater Pollution Prevention Plan (SWPPP) for the Stormwater Extension in 18<sup>th</sup> Street. The Stormwater Extension in 18<sup>th</sup> Street SWPPP project location can be described more specifically as follows:

**Capitol Complex Stormwater Extension Project Location**

- a. 17<sup>th</sup> Street between Congress and Brazos
- b. Brazos between 17<sup>th</sup> Street and 18<sup>th</sup> Street
- c. 18<sup>th</sup> Street between Brazos and San Jacinto
- d. San Jacinto Street between 18<sup>th</sup> Street and Martin Luther King Jr. Boulevard
- e. San Jacinto Street to Waller Creek outfall

**Design Phase**

Engineering scope of services for the SWPPP task include the following:

1. Data Development
  - a. Create a baseline file using the information from the Package 2 Utilities Concept Design for the SWPPP and the E&S and Tree Protection plan, as well as additional survey data files that will be required.
2. Stormwater Extension SWPPP Design Construction Drawings and Specifications will consist of the following:
  - a. SWPPP – CobbFendley will prepare the SWPPP and the E&S and Tree Protection plan sheets for the project.
  - b. Quantity take-off – Will be performed to prepare a bid form. A quantity take-off will be performed at 60%, 90% and 100% submittals to support cost estimate development.
  - c. Cost Estimate – CobbFendley will coordinate with the CMR on the opinion of probable construction cost for the E&S and Tree Protection design elements for the 60% (+1- 15%), 90% (+1- 10%) and 100% (+1- 5%) submittals
3. QA/QC. CobbFendley will perform internal quality control reviews on the SWPPP and the E&S and Tree Protection plans prior to each submittal to TFC & the City of Austin.
4. Prepare 4 submittal packages. CobbFendley will assemble plans and specifications and submit to the City of Austin to review. This proposal assumes there will be a 30%, 60%, 90% and 100% Final Bid Set submittal. We will provide three (3) sets of 22"x34" size plans and specifications for each submittal. A copy of the SWPPP will be provided on the 90% and 100% submittals.
5. Respond to TFC, Master Architect, CMAgent and CMR comments. CobbFendley will review comments provided by City of Austin and review agencies, and prepare a written response to the comments for inclusion with the subsequent submittal.
6. AULCC coordination. CobbFendley will meet with the AULCC for a total of 3 times for their coordination in the approval of the project.
7. Permitting support will be performed by MWM DesignGroup.

**Bid Phase**

CobbFendley will assist in the bidding of the project, with the assumption that the CMR, or CMAgent, will engage a bidding assistance center for the distribution and management of plans during bid phase. Distribution of plans and maintenance of plan holders list is not included in this proposal. Support during the bid phase will include:

Monitoring Plan Implementation & Storm/Wastewater Design Services  
Scope of Services  
January 15, 2018



1. Respond to contractor's questions during bidding process.
2. Attend pre-bid conference and prepare the meeting agenda and minutes.
3. Prepare addenda (assume 1) to address contractor questions.
4. Review bid tabs.
5. Review contractor recommendation.

### **Construction Phase Services**

CobbFendley will provide limited construction administration and observation assistance to TFC. This proposal does not include inspection services. This proposal assumes construction duration of two (2) months. Below is a scope of services for the construction phase services:

1. Review project submittals/shop drawings. CobbFendley will review each submittal up to two (2) times. If the Contractor requires a third submittal, it will be reviewed as an additional service and at the Contractor's expense, as will be written in the contract documents. This proposal assumes 10 submittals.
2. Respond to Requests for Information (RFI). CobbFendley will coordinate with City of Austin and Contractor on RFIs and respond with clarifications as needed. This proposal assumes one (1) RFI.
3. Change Orders. CobbFendley will assist TFC in negotiation and preparation of change order documents, should they be necessary. This proposal assumes one (1) change order.
4. Record Drawings. CobbFendley will prepare a set of record drawings based on Contractor's redlines in the field.

### **ASSUMPTIONS**

1. Meetings include the following:
  - a. 1 kick-off meeting that includes two representatives.
  - b. 2 internal team calls with the assumption that this phase will be no longer than one month.
  - c. 1 Tech Memo Comment review meeting to address comments (2 hours in duration).
  - d. 1 meeting with Austin Traffic Division (ATD) regarding the Stormwater Extension SWPPP.
2. The proposed Stormwater Extension SWPPP area includes a total of 2 blocks on 18<sup>th</sup> and San Jacinto Streets. If additional blocks are required for the Stormwater Extension, then this will be considered additional services.
3. A general permit will be required for the construction of the Stormwater Extension SWPPP. If a site plan permit application is required, this will be considered additional services.
4. CobbFendley will work with TFC, the Master Architect, CMAgent, CMR, and AWU to develop Front End Contract documents to be included for bidding and constructing the project.



**Design, and Consulting Services for the Stormwater Extension in 18<sup>th</sup> Street  
MWM DesignGroup, Inc. (MWM)**

**SCOPE**

MWM shall provide design, permitting, and consulting services for the Stormwater Extension in 18<sup>th</sup> Street. The scope of additional services consists of the detailed design for replacing the stormwater collection system for the following route: mid-block on 17<sup>th</sup> between Congress and Brazos, north on Brazos from 17<sup>th</sup> to 18<sup>th</sup>, east on 18<sup>th</sup> to San Jacinto, north on San Jacinto to midblock, and then east to the outfall in Waller Creek.

**Stormwater Project Management**

1. The MWM project manager will provide a point of contact for CobbFendley.
2. MWM will submit monthly project update reports and internally manage the project.

**Outfall Design (1 sheet)**

MWM will design a replacement outfall utilizing standard City of Austin Details modified for site specific conditions. Precast manholes or boxes are anticipated to be utilized for the outfall design.

**Ultimate Conditions Storm Plan (Modeling and 3 sheets)**

MWM will perform H&H modeling for and design the Ultimate Conditions Storm Plan for the limits of the proposed improvements. MWM understands that criteria for the drainage system pipe sizing includes 25-year storm HGL to be contained within the pipe and 100-year storm HGL to be contained within the gutter/street). Existing inlets will need to be replaced and additional inlets may be required to capture proposed flows. MWM anticipates up to 3 plan and profile sheets to convey the design intent. Modeling for the portions of the project outside of the existing limits of our scope will be limited to hydraulic modeling only and will utilize the existing hydrology provided in the models received from the City of Austin.

**Deliverables, Meetings, Specifications, and Cost Opinion**

1. MWM anticipates 60%, 90%, and 100% milestone submittals for the scope of work described above in electronic, pdf format
2. MWM will participate in up to 10 team meetings
3. MWM will identify standard specifications and/or provide special specifications, as appropriate, for the portions of work that are exclusively related to MWM's scope described above
4. MWM will provide a cost opinion for the portions of the work that are exclusively related to MWM's scope described above with each design submittal



**Permitting Services for the Stormwater Extension in 18<sup>th</sup> Street and the Wastewater Replacement in 17<sup>th</sup> Street  
MWM DesignGroup, Inc. (MWM)**

**Wastewater Replacement in 17<sup>th</sup> Street AULCC Process**

1. Prepare AULCC 30% submittal package
2. Submit plans for 30% AULCC review
3. Attend 30% AULCC meeting
4. Update AULCC workbook
5. Coordinate with utilities and team for update
6. Prepare AULCC 60% submittal package
7. Submit plans for 60% AULCC review
8. Attend 60% AULCC meeting
9. Update AULCC workbook
10. Coordinate with utilities for update
11. Prepare AULCC 90% submittal packet
12. Submit plans for 90% AULCC review
13. Attend 90% AULCC meeting
14. Update AULCC workbook
15. Prepare final submittal packet
16. Submit workbook for final approval
17. Administration of project
18. QA/QC
19. Team meetings

**Wastewater Replacement in 17<sup>th</sup> Street General Permit**

1. Submit plans to AWU
2. Review/distribute comments
3. Submit U1 to AWU
4. Review/distribute comments
5. Submit U2 to AWU
6. Pick up approved plans
7. Meet with GP coordinator
8. Prepare permit application package
9. Submit 100% plans/GP completeness check
10. Review and distribute comments
11. Assist with comment responses
12. Prepare application packet for formal review
13. Submit 100% plans for GP formal review
14. Review and distribute 1st round comments
15. Assist with 1st comment responses
16. Prepare update 1 packet
17. Submit update 1 packet for review
18. Review and distribute 2nd round comments
19. Assist with 2nd comment responses
20. Prepare update 2 packet
21. Submit update 2 packet for review
22. Assist with informal reviews
23. Pick up approved plans and permit
24. Project administration
25. QA/QC
26. Team meetings

**Stormwater Extension in 18<sup>th</sup> Street AULCC Process**

1. Prepare AULCC 30% submittal package
2. Submit plans for 30% AULCC review
3. Attend 30% AULCC meeting
4. Update AULCC workbook
5. Coordinate with utilities and team for update
6. Prepare AULCC 60% submittal package
7. Submit plans for 60% AULCC review
8. Attend 60% AULCC meeting
9. Update AULCC workbook
10. Coordinate with utilities for update
11. Prepare AULCC 90% submittal packet
12. Submit plans for 90% AULCC review
13. Attend 90% AULCC meeting
14. Update AULCC workbook
15. Prepare final submittal packet
16. Submit workbook for final approval
17. Administration of project
18. QA/QC
19. Team meetings

**Stormwater Extension in 18<sup>th</sup> Street General Permit**

1. Submit plans to AWU
2. Review/distribute comments
3. Submit U1 to AWU
4. Review/distribute comments
5. Submit U2 to AWU
6. Pick up approved plans
7. Meet with GP coordinator
8. Prepare permit application package
9. Submit 100% plans/GP completeness check
10. Review and distribute comments
11. Assist with comment responses
12. Prepare application packet for formal review
13. Submit 100% plans for GP formal review
14. Review and distribute 1st round comments
15. Assist with 1st comment responses
16. Prepare update 1 packet
17. Submit update 1 packet for review
18. Review and distribute 2nd round comments
19. Assist with 2nd comment responses
20. Prepare update 2 packet
21. Submit update 2 packet for review
22. Assist with informal reviews
23. Pick up approved plans and permit
24. Project administration
25. QA/QC
26. Team meetings



### ASSUMPTIONS

This proposal has been prepared in accordance with the following assumptions, made in good faith, in conjunction with conversations with Client. Should any of these assumptions be proven invalid, additional services or contract modifications may be required.

1. This scope of work is limited to detailed design of the stormwater collection system only. All other aspects or portions of the design including, but not limited to, erosion and sedimentation controls, temporary traffic control plans, and street reconstruction not covered by standard details will be provided by others or under separate authorizations.
2. Survey, geotechnical information, and SUE services will be performed by others and provided to MWM prior to notice to proceed.
3. Building permits are not anticipated and are not part of this scope.
4. All permit timelines and requirements are subject to change at the time of permit submittal based on city requirements.
5. The Texas Facility Commission is already paid into the City of Austin General Permit process or will be at the time of general permit submittal.
6. Client understands that changes to phasing or sequencing, in this or other packages, or choosing to add or delete portions of the project may impact the permits required and the timeline for submittal and approval.
7. All construction trade permits are handled by the contractor or a subcontractor and any specific questions or needs for an individual trade will be the responsibility of the contractor or the appropriate sub-contractor.
8. Members of the team will provide drawings, plans, specifications or other necessary information for meetings and submittals with the City of Austin and utilities needed.
9. TDLR Registration is handled by others.
10. The storm water pollution prevention plan and any permits or registration requirements with TCEQ or other entities is not part of the MWM scope and is being handled by others.



**Wastewater Line Replacement in 17<sup>th</sup> Street  
Cobb, Fendley & Associates, Inc.**

**SCOPE**

The scope of work for CobbFendley to design the Wastewater Line Replacement in 17<sup>th</sup> Street west of San Jacinto Street is presented in this section.

**Design Phase**

Engineering scope of services for the wastewater design task includes the following:

1. Data Development
  - a. Create a baseline file using the information from the Package 2 Utilities Concept Design for the wastewater utility, the existing utilities as-built files, and Level B information.
  - b. Gather and analyze data including electronic base file creation and City of Austin records research.
  - c. Coordination meeting with AWU regarding upsized, potential issues, and future plans in the area (if any).
  - d. Preliminary 30% layout of wastewater upsized in ACAD Civil3D and submit to AWU.
2. Design Construction Drawings and Specifications will consist of the following:
  - a. Cover Sheet – 1 sheet to City of Austin General Permit Standards.
  - b. General Notes Sheet – 1 sheet with the most recent AWU Standard Notes.
  - c. Wastewater Upsize Layout – 1 sheet showing project location and extents.
  - d. AWU Grid Map Sheet – 1 map containing the AWU Grid map for wastewater lines in the area.
  - e. Plan and Profiles – assumes ~550 linear feet of Wastewater Line plan and profile sheets.
  - f. Details – Prepare required wastewater utility detail sheets to the City of Austin standards.
  - g. Traffic Control Plan and Details – CobbFendley will coordinate with the CMR on the Traffic Control Plan associated with the construction of the project.
  - h. Design Calculations – CobbFendley will work with the City of Austin on the sizing (diameter) for the upsized wastewater line.
  - i. SWPPP – CobbFendley will prepare the SWPPP for the project.
  - j. Technical Specifications – CobbFendley will assemble standard technical specifications for the construction of the project. CobbFendley will work with TFC, the Master Architect, CMAgent, CMR, and AWU on the front-end documents for the use in bidding and constructing the project. A table of contents will be issued at 60% and a full set of technical specifications will be issued at 90% and 100%.
  - k. Quantity take-off – Will be performed to prepare a bid for. A quantity take-off will be performed at 30%, 60%, 90% and 100% submittals to support cost estimate development.
  - l. Cost Estimate – CobbFendley will coordinate with the CMR on the opinion of probable construction cost for the utility design elements for the 60% (+/- 15%), 90% (+/- 10%) and 100% (+/- 5%) submittals.
3. QA/QC. CobbFendley will perform internal quality control reviews on the utility plans and specifications prior to each submittal to TFC and the City of Austin.
4. Prepare 8 submittal packages. CobbFendley will assemble plans and specifications and submit to the TFC and City of Austin to review. This proposal assumes there will be a 30%, 60%, 90% and 100% Final Bid Set submittal. We will provide an electronic copy of the plans and specifications for each submittal to TFC. We will provide three (3) sets of 22"x34" size plans and specifications for each submittal to the City of Austin.
5. Respond to TFC, Master Architect, CMAgent, CMR and City of Austin comments. CobbFendley will review comments provided by City of Austin and review agencies and prepare a written response to the comments for inclusion with the subsequent submittal.
6. AULCC coordination. CobbFendley will meet with the AULCC for a total of 3 times for their coordination in the approval of the project.
7. Permitting support will be performed by MWM DesignGroup.



### **Bid Phase**

CobbFendley will assist in the bidding of the project, with the assumption that the CMR, or CMAgent, will engage a bidding assistance center for the distribution and management of plans during bid phase. Distribution of plans and maintenance of plan holders list is not included in this proposal. Support during the bid phase will include:

1. Respond to contractor's questions during bidding process
2. Attend pre-bid conference and prepare the meeting agenda and minutes
3. Prepare addenda (assume 1) to address contractor questions
4. Review bid tabs
5. Review contractor recommendation

### **Construction Phase Services**

CobbFendley will provide limited construction administration and observation assistance to TFC. This proposal does not include inspection services. This proposal assumes construction duration of two (2) months. Below is a scope of services for the construction phase services:

1. Review project submittals/shop drawings. CobbFendley will review each submittal up to two (2) times. If the Contractor requires a third submittal, it will be reviewed as an additional service and at the Contractor's expense, as will be written in the contract documents. This proposal assumes 10 submittals.
2. Respond to Requests for Information (RFI). CobbFendley will coordinate with City of Austin and Contractor on RFIs and respond with clarifications as needed. This proposal assumes one (1) RFI.
3. Change Orders. CobbFendley will assist TFC in negotiation and preparation of change order documents, should they be necessary. This proposal assumes one (1) change order.
4. Record Drawings. CobbFendley will prepare a set of record drawings based on Contractor's redlines in the field.

### **ASSUMPTIONS**

1. Meetings include the following:
  - a. 1 kick-off meeting that includes one representative
  - b. 2 internal team calls with the assumption that this phase will be no longer than one month
  - c. 1 Tech Memo Comment review meeting to address comments (2 hours in duration)
  - d. 1 meeting with Austin Water Utility (AWU) regarding 6" wastewater line upsize to a 12" wastewater line
2. The proposed wastewater alignment will consist of routing the wastewater on 17<sup>th</sup> Street from the northeast corner of the 1601 Congress site east to connect to an existing 12" wastewater line at San Jacinto Street. The approximate distance is 550 linear feet of proposed wastewater, which is 2 plan and profile sheets. If an alternate alignment is selected or more than 2 plan and profile sheets are required, then this will be considered additional services.
3. The AWU requires visual manhole inspection to verify if manholes currently in service need to be replaced. This proposal assumes 3 manholes to be visually inspected and the appropriate form filled out.
4. A general permit will be required for the installation of the wastewater line. If a site plan permit application is required, this will be considered additional services.
5. CobbFendley will work with TFC, the Master Architect, CMAgent, CMR, and AWU to develop Front End Contract documents to be included for bidding and constructing the project.

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**ATTACHMENT 3**

**Specifications for Geotechnical Instrumentation and Monitoring**

**(Revised January 5, 2018)**

Prepared by Balcones Geotechnical, LLC

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## **Specifications for Geotechnical Instrumentation and Monitoring (Revised January 5, 2018)**

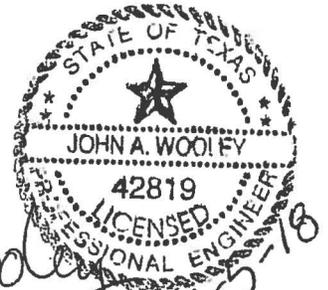
### **Capitol Complex Phase 1 Excavation Project TFC Project 16-018A-8001 Austin, Texas**

**Prepared for:**

Texas State Facilities Commission  
c/o Cobb Fendley & Associates, Inc.  
505 East Huntland Drive, Suite 100  
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**Prepared By:**

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## GEOTECHNICAL INSTRUMENTATION

### PART 1 - **GENERAL**

#### 1.01 SUMMARY

- A. The purposes of the geotechnical instrumentation program are to:
1. Provide pre-construction baseline vibration and position data for comparison with construction and post-construction data.
  2. Measure and monitor ground surface, retention system, and existing structure movements during construction.
  3. Determine if existing foundations have been affected by construction activity and extend any effects.
  4. Potentially forewarn of unforeseen conditions that may require remedial or precautionary measures.
  5. Monitor the performance of the Contractor's excavation support system.
  6. Monitor construction-related vibration.
- B. Work covered by this Section shall include, but not be limited to, all materials, equipment, labor, and services required for the complete installation, baseline readings, monitoring, data collection, storage, and presentation in a web based format to authorized users, and protection of the Geotechnical Instrumentation shown on the Contract Drawings and listed in this Specification Section. The instrumentation shall be installed by the Contractor under the observation of the Package 1 Engineer of Record (EOR).
- C. Contractor will monitor instrumentation as shown on the Contract Drawings and provide data to the EOR on a daily

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basis after initial baseline readings are established as described herein.

- D. The Contractor shall, upon identification of any inoperable, damaged, or destroyed instrumentation, immediately report the instrument status to the EOR, and within 72 hours repair or replace the identified instrumentation.
- E. Geotechnical Instrumentation shall be installed to monitor:
  - 1. The performance of the Contractor's excavation support systems for open excavations;
  - 2. Vertical and horizontal movement of ground surface and pertinent nearby flatwork;
  - 3. The horizontal and vertical movement of existing structures (and their foundations) indicated on the Contract Drawings; and
  - 4. Vibration levels at selected locations surrounding the excavation due to construction activities. These locations will be as indicated on the Contract Drawings and will consist of nearby flatwork as well as building structures, foundations, and slabs.
- F. The Contractor shall conduct a pre-construction baseline reading of all instrumentation immediately following installation and upload the data to TFC provided storage for review by the EOR for comparison with construction and post-construction data.
- G. The instruments installed by the Contractor shall be installed under the observation of the EOR. The EOR will review and approve the types of instruments, installation locations and installation procedures prior to installation. The Contractor shall replace within 72 hours, at no cost to the Owner, any instrumentation determined by the EOR to be improperly installed, defective, or inoperable.

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- H. The approximate plan locations and related details of the Geotechnical Instrumentation are shown on Contract Drawings. Plan locations shown on the Contract Drawings, as well as elevations of instrumentation, shall be adjusted in the field, subject to review and acceptance by the Engineer, considering observed subsurface conditions, utilities, or other obstructions and the Contractor's means and methods. Structure vibration monitoring points should also be co-located at tiltmeter locations to the greatest extent possible.
- I. Existing piezometers shall be monitored by the Contractor in addition to instrumentation installed as part of this Contract and covered by this specification. The Contractor shall protect and maintain the existing piezometers indicated on the Contract Drawings. These piezometers shall be protected and maintained until such time that it has been demonstrated that performance requirements have been met, and/or excavation at a piezometer location is necessary. If excavation at a piezometer location is necessary, the EOR shall be notified at least 48 hours in advance.
- J. The Contractor shall obtain additional data from the instrumentation and/or furnish, install, monitor, and determine the need for additional instrumentation as the Contractor considers necessary to monitor construction performance and safety aspects of the work. Furnishing, installing, and monitoring of additional instrumentation shall be the Contractor's responsibility and shall be done at no additional cost to the Owner unless specifically requested by the Owner.
- K. In addition to purchasing specified instrumentation and providing all monitoring thereof, the Contractor shall be responsible for the following:
1. Install instrumentation at the locations shown on the Contract Drawings or as adjusted/approved by the EOR.
  2. Maintain and protect instrumentation from damage for the duration of the Work covered by this Contract. Coordinate with other contractors to

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- assure that they know the locations of all instruments.
3. Provide unrestricted access to the instrumentation for inspection by the EOR at all times during construction.
  4. When required, and after adequate notification, provide adequate lighting and safe means of access to pertinent instrumentation locations as required for inspection by the EOR (or other designated representative) for the duration of this project. Cooperate with the EOR during instrumentation monitoring by the Contractor and inspection by the EOR and schedule activities considering that this monitoring will occur throughout the duration of the project.
- L. Provide as-built locations of all instrumentation as well as the initial readings at commissioning of the instruments.
- M. Obtain all necessary permits and permissions from appropriate agencies and property owners to conduct all work associated with this Specification section. Provide copies of permits and written permissions with the geotechnical data monitoring submissions.
- N. Instrumentation data will be collected by the Contractor and submitted to the EOR as specified herein.
- O. The Contractor shall interpret all data, independent from interpretations made by the EOR, as it relates to construction performance and job safety aspects of the work.
- P. All submittals and other project documents shall be transmitted and stored using the project management software as maintained by the Owners representative. All data collected by an automated data collection system and monitoring platform shall reside on that system and made available to the Owner and the EOR via a WEB interface. If summary reports of instrumentation data are generated, they will be uploaded and maintained using this same project management software.

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## 1.02 QUALITY ASSURANCE

- A. The Contractor shall be responsible for installing, at a minimum, all instrumentation as shown on the Contract Drawings and in accordance with instrument manufacturer recommendations. The Contractor shall repair or replace within 72 hours, any instrumentation that fails, regardless of cause, to perform its intended function, at no additional cost to the Owner. The Contractor will immediately notify the EOR upon identification of any damaged or inoperable instrumentation.
- B. Off-site benchmark(s) shall be provided by the Owner. The Contractor's surveyor shall tie all vertical and horizontal survey measurements to the off-site benchmark(s).
- C. Contractor shall perform a pre-construction survey to document existing conditions of surrounding structures. The pre-condition survey shall be coordinated with the TFC, EOR and individual property owners. The surveys shall be of the facilities indicated on the Contract Drawings, including:
1. Provide all equipment, materials, labor and services required to complete a preconstruction conditions survey.
  2. A detailed examination of a structure shall include interior basements and vaults, if any, the ground floor, and exterior visual survey of the property and building. The façade shall also be surveyed and documented on the sides of structures adjacent to the excavation.
  3. Video documentation of the interior and exterior shall be taken, showing visually evident superficial and structural defects, including but not limited to: locations and sizes of cracks in floors, ceilings, and exterior and interior walls, especially instances of cracked or missing plaster; damaged masonry; damaged windows and doorways;

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walls which are not vertical or floors which are not horizontal; damage to foundations, including interior and basement walls; groundwater seepage/leakage conditions in basements, if any; and tightness of fit of doors and windows in their respective jambs.

4. Monitoring of ambient vibrations and resonant frequency at the structures as described herein.
5. The Contractor shall, via Owners project management software, submit documentation, photographs, and video as part of a pre-construction survey report at least 4 weeks prior to the start of construction.

D. Qualifications:

1. Contractor shall employ a qualified instrumentation installation specialist with a minimum of 5 years of experience in the installation of Geotechnical Instrumentation similar to that specified herein and who has completed instrumentation installations on at least 2 projects of similar size and scope within that period. This specialist would oversee the installation of instruments specified herein. Written documentation of qualifications shall be submitted to the EOR before installation of devices begins.
2. Contractor shall employ a professional land surveyor licensed in the State of Texas to obtain baseline readings of all Ground Surface Monitoring Points, Structure Monitoring Points, Extensometer housings (if used), Tiltmeters, or Shape Arrays (at least one point), and Retention System Array Targets. Surveyor shall have previous and similar experience surveying for the detection of structural or surface deformations.

1.03 SUBMITTALS

- A. Prior to obtaining any material or equipment in connection with this Section, detailed shop drawings, cut sheets, and product information shall be submitted

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and to the EOR for review and approval at least 4 weeks prior to installation.

B. The Contractor shall submit for review by the EOR the following information:

1. Proposed final plan showing exact locations of required Geotechnical Instrumentation including the limits of temporary excavation support system(s) indicating the positions of excavation support monitoring points and any other Contractor proposed instrumentation.
2. Product information indicating the instrumentation type, make, model, specifications, manufacturer's recommended installation procedures, proposed instrument installation locations, and other pertinent data.
3. Name and relevant project experience list for the instrumentation installation specialist overseeing the installation of Geotechnical Instrumentation.
4. Installation details for all Geotechnical Instrumentation shown on the Contract Drawings and any additional instrumentation proposed by the Contractor.
5. As-built instrument location plan and instrument installation calibration, commissioning readings, installation details, and record sheets, within 2 weeks of installation.
6. Contractor submittals shall be acceptable to the EOR prior to undertaking the work. The Contractor is required to obtain an acceptable submittal and shall forward submittals in advance considering that re-submittals may be required.
7. All necessary permits and copies of written permission from appropriate property owners to conduct all work associated with this Specification section.

#### 1.04 SAFETY

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- A. Method of installation shall be such as to assure the safety of the work, project participants, the public, third parties, and adjacent properties, whether public or private. All work shall conform to the requirements of all Federal, State, and local laws and regulations. The Contractor is solely responsible for project safety and maintaining a safe work environment at the site at all times.

#### 1.05 DEFINITIONS

- A. EOR: Package 1 Engineer of Record.
- B. Threshold Value: Value of instrumentation readings at which the EOR and Contractor jointly review and analyze monitoring data to discern the cause of the instrumentation trend that resulted in reaching the threshold value, assess changes to methodology, rates, or construction sequencing to attempt to mitigate future instrument movement, and then implement identified changes.
- C. Limiting Value: Value of instrumentation readings at which the EOR can order the Contractor to cease construction operations, secure the site and affected properties, and take necessary and agreed-upon measures to mitigate or repair unacceptable movements, and to assure the safety of the work and the public.

### PART 2 - PRODUCTS, EQUIPMENT AND MATERIALS

#### 2.01 General Requirements

- A. The Geotechnical Monitoring System will include the following categories of motion: vertical displacement, horizontal displacement, rotation or tilt, vibration, and crack separation.
- B. The general categories of sensors include the following: Shape Arrays, Tiltmeters, Automated Total Station (AMTS) survey devices, Automated Vibration Monitors

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(permanent and portable), Extensometers, Monitoring Prisms, and Crack Monitors.

- C. The Contractor is responsible for the removal of instruments and any associated hardware and any necessary repairs to patch damage made during mounting of the instrument to permanent structures once the post-construction monitoring period has ended. Every effort will be made by the Contractor to use easily removable adhesives or other non-destructive means of anchorage to structures. If permanent holes or anchorage mechanics require damage to structure, even slight, these instances will require prior approval by the EOR and Owner.

## 2.02 SHAPE ARRAYS

- A. Shape Arrays shall be installed at a minimum of 6 predetermined locations around the perimeter of the excavation, as shown in the Contract Drawings. Shape Arrays shall be configured to monitor the entire depth of the excavation, plus 10 ft, at each installation location, with inclinometers spaced at 0.5 meters vertically along the entire length of the array.
- B. Shape Arrays shall be installed prior to beginning the excavation, in predrilled holes located within 3 ft of the back of the retention system, or as otherwise directed by the EOR or Owner.
- C. All sensors, readout units, cabling, data logger(s) and all associated hardware (and software) shall be provided by the Contractor.
- D. A visual survey point shall be installed coincident with the all instruments to tie a portion of the instrument into the position survey.
- E. Shape Arrays shall be Geo-Instruments Item Number SAA110 or equivalent as approved by the EOR.

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## 2.03 TILTMETERS

- A. Biaxial Tiltmeters shall be installed at a minimum of 8 predetermined locations on structures surrounding the excavation. These approximate monitoring locations are shown on the Contract Drawings. All locations will be on the interior of surrounding structures, unless otherwise approved or directed by the EOR and Owner, and the Contractor will be required to coordinate their final locations with the respective building maintenance and management team(s).
- B. Tiltmeters should have a full scale range of motion of +/- 3 degrees, with a resolution of one arc second, have an accuracy of <1% full scale (calibrated range), and an operating temperature range of -20 to +50 degrees C.
- C. Tiltmeters, attachment brackets, cabling, data logger system, and wireless communications hardware (and software) shall be provided by the Contractor.
- D. A visual survey point shall be installed coincident with or directly adjacent to the instrument to tie a portion of the instrument into the position survey.
- E. Biaxial tiltmeters shall be Geo-Instruments Item Number TMA420, or equivalent as approved by the EOR.

## 2.04 AUTOMATED TOTAL STATION (AMTS) AND VISUAL SURVEY

- A. At least four Automated Total Station (AMTS) survey stations are to be installed by the Contractor. Candidate locations are indicated in the Contract Drawings. The final number of AMTS and locations utilized by the Contractor shall provide an unobstructed view of monitoring points along the entire perimeter of the excavation and retention system, plus surrounding structures. Final determination of the positions and number of AMTS shall be determined by the Contractor such that all survey targets and back-sights are line-of-site with those positions.
- B. A minimum of 27 retention system monitoring prisms (RSMP) locations are specified. At least two monitoring

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prisms will be installed at each RSMP location, one at the top and one at mid height.

- C. A minimum of 27 structure monitoring prism (SMP) locations are specified. Structure monitoring prisms will be installed at each of these SMP locations.
- D. A minimum of 24 roadway prisms will be placed along flatwork and roadways to provide infrastructure monitoring on City of Austin infrastructure while construction is under way. Locations will be determined by Contractor, Owner and EOR at a future date. In addition, Contractor shall provide an additional 24 prisms to be located as directed by the EOR or Owner at additional locations to be determined in the future.
- E. A total of 6 control monitoring locations shall be identified, by the Contractor, on other structures outside the immediate excavation influence area.
- F. Monitoring data shall be automatically collected and processed on an interval of no more than 30 minutes and organized along with other data sets into a comprehensive presentation format with displacement versus time plots and trend plots. All of the data shall be collected, processed, and stored within a project data base that is WEB accessible by authorized parties.
- G. ATMS shall be Geo-Instruments Item Number TSR110M, or equivalent, as approved by the EOR.

## 2.05 VIBRATION MONITORS

- A. Contractor shall provide 3 portable Automated Vibration Monitors (AVM), with experienced operator available, to the project on a continuous basis while the excavation is underway. These monitors may be moved from time to time to respond to changing excavation activities and to respond to concerns or complaints of stakeholders.

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- B. Selected AVMs should be capable of 24 hr operation using battery power and should be enclosed in a weather proof, lockable enclosure.
- C. AVM geophones shall be capable of measurement of three dimensional velocities to a precision of 0.01 ips.
- D. All data shall be collected and transferred to the project data base automatically via a dedicated server. If excitation levels exceed predetermined trigger levels, the system must be capable of immediate notification of said levels, triggering a possible work stoppage.
- E. Portable vibration monitors may be InstanTel Minimate Pro4, or equivalent.

## 2.06 EXTENSOMETERS

Extensometers may be used to monitor vertical or horizontal displacements at locations before the other systems are installed, or at locations that cannot be properly monitored by the other systems. The Contractor should be prepared to provide for the installation of up to 6 of these devices at locations to be determined. Contractor will be given 96 hrs to procure and install extensometers after notification by EOR or Owner. Payment will only be made for extensometers actually installed.

- A. Any Extensometers installed shall, if possible, also be fitted with a visual survey point at the Extensometer head to provide for survey of the Extensometer head position by the AMTS System.

Extensometers shall be capable of being firmly attached to hard structures and of measuring displacements as small as 1 mm.

## 2.07 CRACK MONITORS

- A. Crack Monitors shall be installed, as necessary, to monitor locations of interest found during the pre-condition survey. Assume a total of 8 will be required. Crack monitors shall be capable of measurement of displacements as small as 0.1 inches. Monitoring of

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crack monitors will not be required if none are installed or if further monitoring is terminated by the EOR or Owner.

- B. Crack monitors shall be rigidly affixed to structure in such a way to assure they will remain in place for the duration of the excavation and monitoring program using an adhesive to prevent permanent damage to the structure(s).

## 2.08 AUTOMATED DATA COLLECTION, STORAGE AND REPORTING

- A. All instrumentation monitoring (except crack monitoring) shall be done continuously and automatically such that the data may be collected and stored via electronic means for instantaneous processing, organizing, graphical display, and presentation on a project website.
- B. All automated data collected shall be made available to the EOR and the Owner via a project website that is accessible 24 hrs/day 7-days/week.
- C. All necessary data loggers, signal processors, interface modules, multiplexers, power supplies, wireless communications devices, cabling, storage server, data reduction software, and secure web access to authorized project personnel shall be provided by the Contractor.
- D. All stored project data shall be backed up on a daily basis on a separate system.
- E. Copies of the complete set of electronic data shall be submitted via project management software to the EOR and Owner at the completion of the project, and on a weekly summary basis.
- F. The Automated System shall be operable until the completion of the post-construction monitoring period.

## PART 3 - EXECUTION

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### 3.01 GENERAL REQUIREMENTS

- A. The Contractor shall install instruments, following manufacturers' recommendations, as detailed in the reviewed and approved submittals, and as specified herein and/or shown on the Contract Drawings.
- B. The instrumentation locations shown on the Contract Drawings are approximate. Prior to installation of any instrumentation, the Contractor shall evaluate field conditions and select proposed locations for the instrumentation. The Contractor shall submit to the EOR for review the proposed locations for all instrumentation.
- C. The Contractor shall notify the EOR at least 72 hours prior to installing each instrument or instrument package.
- D. The Contractor shall install, monitor, and interpret data from instrumentation, in addition to that specified herein, that the Contractor deems necessary to ensure performance of the work in accordance with the Contract Documents, and the safety of personnel and the Work.
- E. The Contractor shall allow unrestricted access to all instruments by the EOR or other designated representatives at all times.
- F. An instrument that fails manufacturer specified post installation acceptance testing shall be replaced by an identical instrument at no additional cost to the Owner.
- G. After installation, any instrumentation damaged by Contractor shall be replaced by the Contractor at no additional cost to the Owner. Cost of repair or replacement for instrumentation damaged by operations of other Contractors present on site shall be at the expense of the responsible party.
- H. Any instrumentation that fails or becomes faulty during operation shall be replaced, payment for this replacement will be by the Owner if not covered by manufacturer warranty.

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- I. As-built locations and elevations for all instrumentation and replacement instrumentation shall be submitted by Contractor as part of the instrument installation record.
- J. For structural monitoring instrumentation, whenever possible, instrumentation installed on preexisting structures should be attached using non-destructive methods (ie. Epoxy, glue, or mastic). The instruments should be installed in such a manner as to reduce or eliminate the possibility of tampering. When necessary, instruments should be protected from the elements. Whenever possible, instruments should be installed at locations such that minimal additional wiring and cabling is needed. The use of battery or solar powered instruments with wireless data transfer capabilities is recommended.
- K. For retention system monitoring instrumentation installation, the Contractor should consider that monitoring prisms may be attached to temporary shoring and installation locations should be flexible and movable as the retention system construction progresses and the system accepts shotcrete. Instruments may be attached to steel H piles, wood lagging, a separate stanchion, or attached directly to shotcrete. The use of Shape Array instruments is specified for tilt measurements, as this will reduce the need for instrument relocation as excavation depth increases and work progresses.
- L. Installation of instrumentation will need to be done in phases as the work progresses.
- M. The Contractor should decommission the instrumentation in phases as instruments are no longer needed. In certain cases, it may be acceptable to abandon instruments in place as the excavations are backfilled. Approval of the Owner or EOR should be obtained prior to any in-place abandonment of instrumentation.

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### 3.02 DATA COLLECTION

- A. Collection and reporting of data from the instrumentation will be the responsibility of the Contractor.
- B. The Contractor's data, when not collected by an automated system, will be recorded on field data records, which will include at least the following:
  - 1. Project name
  - 2. Instrument type
  - 3. Date and time
  - 4. Observer
  - 5. Readout unit manufacturer, model, and serial number
  - 6. Instrument manufacturer, model, and serial number
  - 7. Readings including units
  - 8. Observed construction activities within 200 feet of the instrument
  - 9. Visual observations
  - 10. Weather and temperature
  - 11. If the instrument in question currently in direct sunlight or shade
  - 12. Description of any large or transient surcharge loads adjacent to the instrument at time of reading
  - 13. Remarks
- C. Baseline readings for tiltmeters and vibration monitors located within structures should be collected for a period of at least 12 weeks prior to commencement of excavation, unless a shorter time interval is approved by the Owner and/or the EOR.

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- D. The Contractor shall report data from the instrumentation in accordance with the following schedule. The Contractor may, at his discretion, conduct more frequent data collection. Additional data collection shall be at no additional cost to the Owner. Contractor will obtain the following:
1. Shape Array, and Tiltmeter readings from automated instruments shall be recorded at 30-minute intervals for the duration of the construction activities or until the EOR agrees that monitoring may cease.
  2. Automated Total Station and Vibration Monitoring shall be continuous while construction activities are in progress.
  3. Extensometers and Crack Monitor data shall be collected on a weekly basis. Daily data collection may be required if threshold limits are reached as specified herein.
  4. Vibration Monitoring Seismographs
    - a. The Contractor will establish a baseline condition for vibrations which exist as a result of vehicular traffic, elevator movements, foot traffic or other sources.
    - b. Monitoring during all construction activities will consist of continuous recording of particle velocities in three directions and a resultant peak particle velocity. Full waveform data will be recorded for 1 minute if an instrument senses a trigger level event. Notify the EOR immediately of any occurrence of a trigger level event and if requested, submit documentation via the project management software to the EOR for review.
    - c. Upon a trigger level event, the Contractor should, after notifying the EOR, determine the

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cause of the event and take appropriate action to cease or modify any activity that caused the event.

### 3.03 THRESHOLD, LIMITING, AND TRIGGER VALUES

INSTRUMENTATION LOCATION / TYPE	INSTRUMENT CRITERIA		
	THRESHOLD	LIMITING	TRIGGER
AMTS: Retention System (in. Horz or Vert)	0.5	1.0	N/A
AMTS: Structures (in. Horz or Vert)	0.25	0.75	N/A
Fixed Inclinometers/Shape Arrays (degrees)	0.1	0.2	N/A
Tiltmeters (degrees)	0.1	0.2	N/A
Vibration: peak particle velocity (inch per second)	0.2	1.0	0.1

### 3.04 DATA REPORTING

- A. Instrumentation data will be submitted to the Owner, EOR, and City of Austin by the Contractor in a weekly summary. The submittal to the City of Austin shall be a summary of the data collected. The method of submittal will be electronically to individual(s) determined by the Owner and/or EOR at a later date. In addition, all data will be uploaded several times daily to the project data management center and those with access may review at any time.
- B. If a Threshold or Limiting value has been exceeded, the EOR will be notified verbally as soon as practical by the Contractor and in writing within 24 hours and reading frequency will be increased as specified herein until mitigating measures have been taken or the readings reach equilibrium.
- C. The instrumentation data will be presented to the Owner and EOR in a form designed in collaboration between the EOR and Contractor showing all previous readings for the various instruments.

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- D. In addition, the data will be plotted as follows:
1. AMTS, Extensometers and Crack Monitors - Plot vertical and horizontal deformation versus time.
  2. Shape Arrays - Plots of inclinometer data will be "cumulative change" data, showing absolute horizontal deformation versus depth, and "change" data showing incremental deflection versus depth, and will be prepared on 8-1/2-inch x 11-inch page format. Multiple plots shall be on the same sheet to provide a time history, each labeled with the date. Each plot will include the instrument numbers and coordinate location. Use of the collocated visual survey point on the instrument can be utilized to verify the overall direction of inclinometer movement.
  3. Tiltmeter data shall be plotted as a function of degrees (or minutes) of rotation versus time.
  4. Vibration Monitoring (Seismographs) - Plots of data will be the following types: full waveform plots. For seismograph full waveform data, the Contractor will provide plots consisting of a graphical display of the three component particle velocities during the entire course of the vibration-producing construction activity.
- E. Each week the Contractor shall submit to the EOR a description of the work performed during that week, including:
1. A description of groundwater control operations. This description shall include the pump locations and depths, times and durations of operation, and estimated quantity of flow from dewatering operations.
  2. A summary of excavation support system construction activities. This summary shall include any soldier pile drilling, tieback, or rock bolt, installation activities and other activities associated with construction of excavation support systems.

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3. A summary of excavation activities shall include a general description of where excavation has occurred during the week, together with plots of the elevation of the bottom of the excavation versus station.
4. A description of any unusual events that may have affected the instrumentation readings. This report shall include a description of any remedial or precautionary measures that were implemented during the week in response to Geotechnical Instrumentation or other data, including when they were implemented and for what reason. The report shall also include a description of any future remedial or precautionary measures that are planned in response to existing Geotechnical Instrumentation or other data.
5. The Contractor shall notify the EOR, 48 hours in advance of any activities that are likely to produce substantial vibrations.

### 3.05 DAMAGE TO INSTRUMENTATION

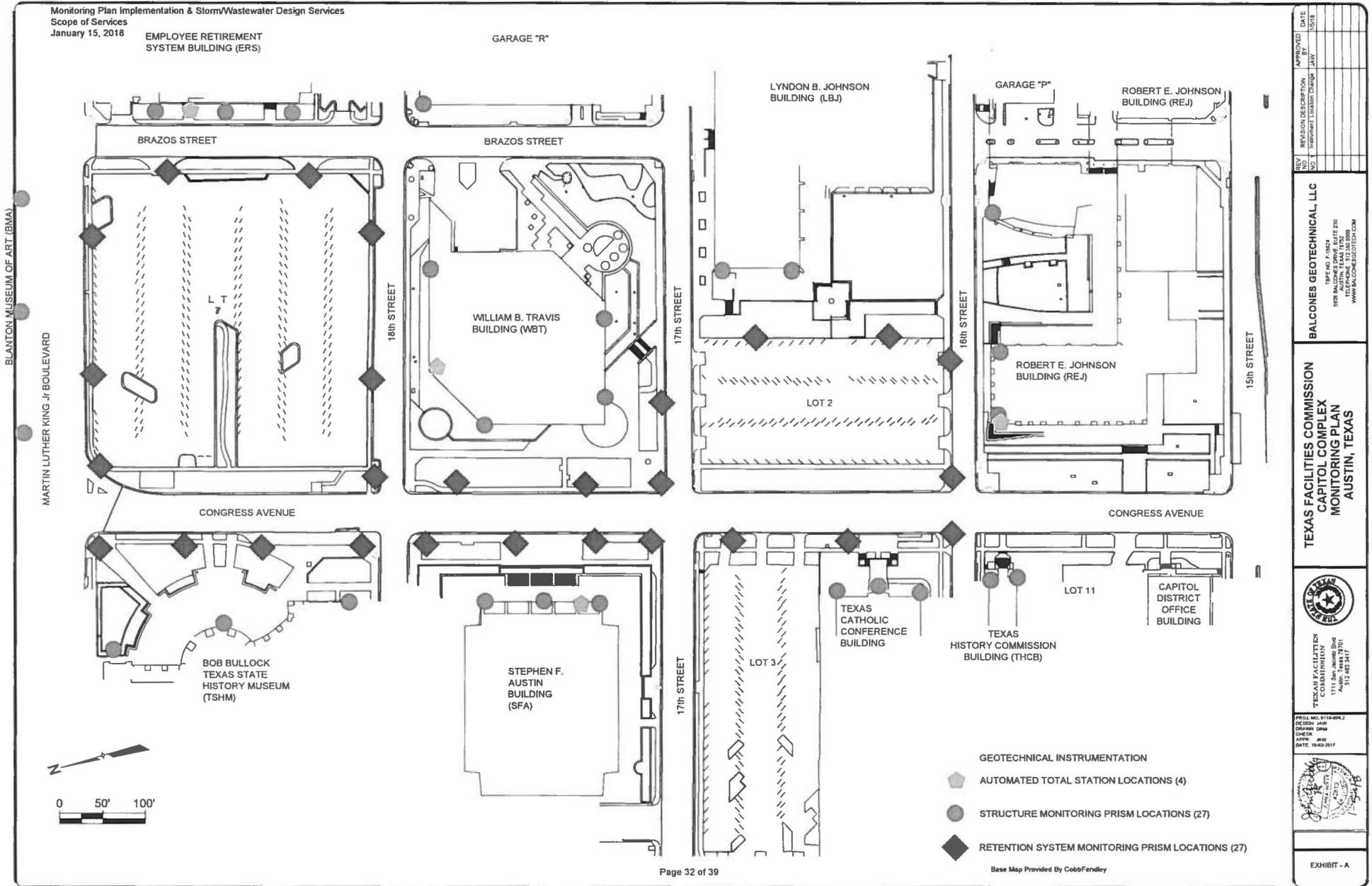
- A. The Contractor shall protect all instruments and appurtenant fixtures, leads, connections, and other components of instrumentation systems from damage due to construction operations, weather, traffic, and vandalism.
- B. If an instrument is damaged or inoperative, including an existing instrument installed by others, the Contractor shall repair or replace the damaged or inoperative instrument within 72 hours. The Engineer will determine whether repair or replacement is required. The EOR may impose a work stoppage until the damaged or inoperative instrument is again operational.

END OF SECTION

Monitoring Plan Implementation & Storm/Wastewater Design Services  
 Scope of Services  
 January 15, 2018

EMPLOYEE RETIREMENT  
 SYSTEM BUILDING (ERS)

GARAGE "R"



REV. NO.	REVISION DESCRIPTION	APPROVED BY	DATE
1	ISSUED FOR CONSTRUCTION	JAV	1/15/18

**BALCONES GEOTECHNICAL, LLC**  
 TYPE AND NUMBER  
 5918 AUSTIN, TEXAS 78720  
 WWW.BALCONESGEOTECH.COM

**TEXAS FACILITIES COMMISSION  
 CAPITOL COMPLEX  
 MONITORING PLAN  
 AUSTIN, TEXAS**



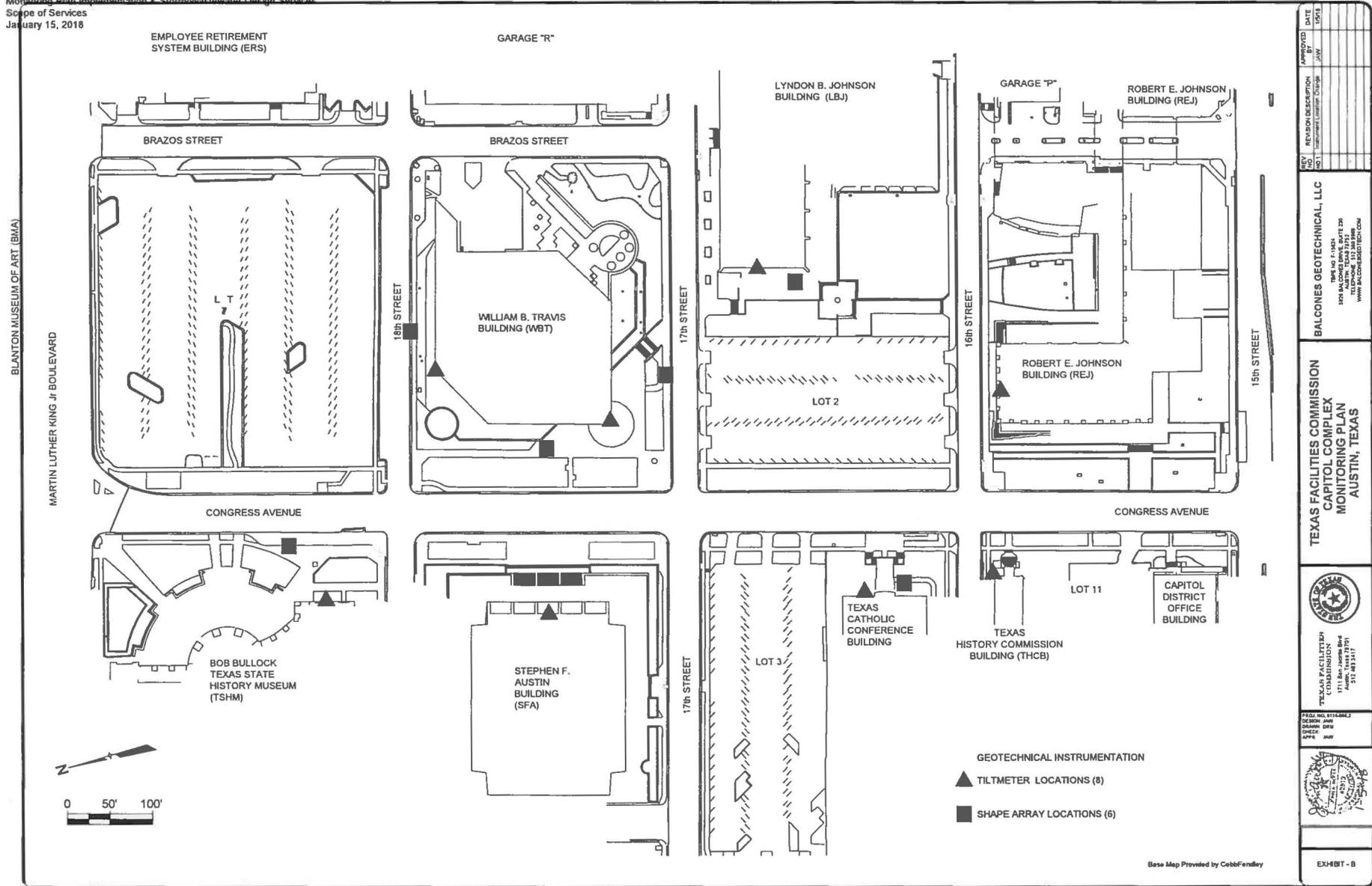
TEXAS FACILITIES COMMISSION  
 1711 Red Maple Drive  
 Austin, Texas 78701  
 312.463.3417

PROJ. NO. 1711-00002  
 DESIGN: JAV  
 CHECK: DMH  
 DATE: 10-03-2017



EXHIBIT - A

Monitoring Plan Implementation # StormWastewater Design Services  
 Scope of Services  
 January 15, 2018



REV	NO	REVISION DESCRIPTION	APPROVED BY	DATE

**BALCONES GEOTECHNICAL, LLC**  
 1500 W. FISH  
 1000 N. BRUNNEN  
 AUSTIN, TEXAS 78701  
 WWW.BALCONESGEOTECH.COM

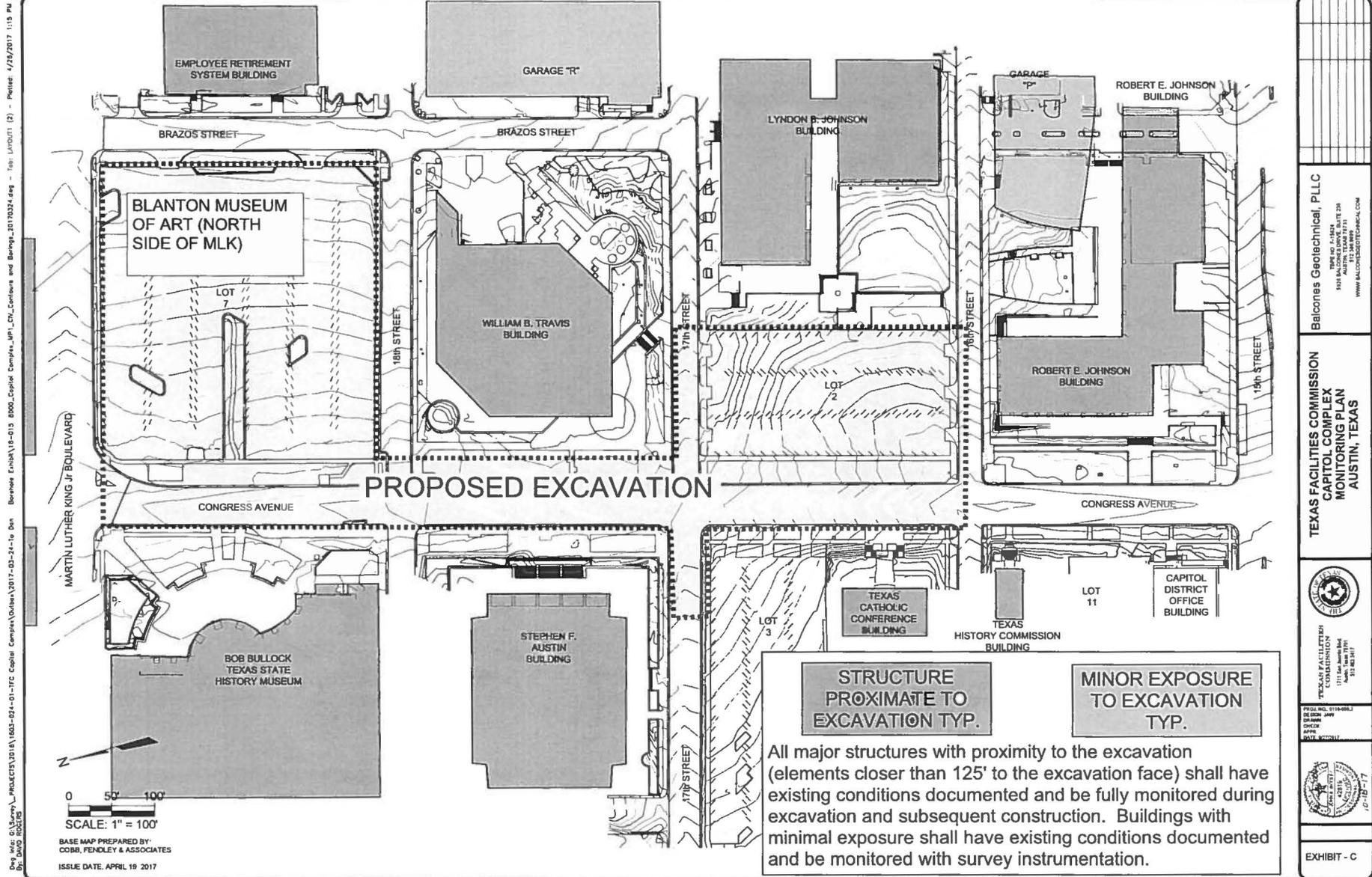
**TEXAS FACILITIES COMMISSION  
 CAPITOL COMPLEX  
 MONITORING PLAN  
 AUSTIN, TEXAS**

**TEXAS FACILITIES COMMISSION**  
 1100 W. 11TH STREET  
 AUSTIN, TEXAS 78701  
 512-463-1117

REG. NO. 1151662  
 DESIGN: DWG  
 CHECK: DWG  
 APPR: DWG

EXHIBIT - B

Monitoring Plan Implementation & Storm/Wastewater Design Services  
 Scope of Services  
 January 15, 2018



Dwg. info: C:\Users\j\PROJECTS\2018\1602-024-01-TFC Capitol Complex\Drawings\2017-02-24-19-Don David Rodas  
 Brevise Ench\19-013 0000\_Capitol Complex\_MP\_CV\_Configure and Berops\_0110321.dwg - Tab: LAYOUT (2) - Plotter: 4/28/2017 1:15 PM

<p>TEXAS FACILITIES COMMISSION                  CAPITOL COMPLEX                  MONITORING PLAN                  AUSTIN, TEXAS</p>	<p>Balcombes Geotechnical, PLLC</p> <p>1111 S. MESA LITE DR                  AUSTIN, TEXAS 78731                  WWW.BALCOMBESGEOTECHNICAL.COM</p>
<p>TEXAS FACILITIES COMMISSION                  CAPITOL COMPLEX                  MONITORING PLAN                  AUSTIN, TEXAS</p>	<p>PROJ. NO. 1114-008-3                  02 APR 2017                  CO. 0000                  CIVIL                  APPR.                  DATE: 02/01/17</p>
<p>TEXAS FACILITIES COMMISSION                  CAPITOL COMPLEX                  MONITORING PLAN                  AUSTIN, TEXAS</p>	<p>ISSUE DATE: APRIL 19 2017</p>

Monitoring Plan Implementation & Storm/Wastewater Design Services  
Scope of Services  
January 15, 2018



**ATTACHMENT 4**

**Rate Sheets**

Monitoring Plan Implementation & Storm/Wastewater Design Services  
 Scope of Services  
 January 15, 2018



**CobbFendley 2018 Rate Sheet**

Principal / Chief Engineer .....	\$275.00/HR
Senior Engineer .....	\$260.00/HR
Senior Project Manager .....	\$225.00/HR
Project Manager II .....	\$210.00/HR
Project Manager I .....	\$185.00/HR
Senior Hydrologist .....	\$210.00/HR
Project Engineer III .....	\$160.00/HR
Project Engineer II .....	\$145.00/HR
Project Engineer I .....	\$125.00/HR
Senior Technician .....	\$135.00/HR
Technician III .....	\$120.00/HR
Technician II .....	\$110.00/HR
Technician I .....	\$90.00/HR
Licensed State Land Surveyor .....	\$225.00/HR
Registered Professional Land Surveyor .....	\$165.00/HR
4 Person Field Services Crew.....	\$180.00/HR
3 Person Field Services Crew.....	\$160.00/HR
2 Person Field Services Crew.....	\$140.00/HR
1 Person Field Services Crew.....	\$100.00/HR
2 Person Hy-Drone Crew .....	\$325.00/HR
2 Person UAV Drone Crew .....	\$225.00/HR
Construction Manager III.....	\$250.00/HR
Construction Manager II.....	\$210.00/HR
Construction Manager I.....	\$185.00/HR
Senior Field Construction Observer .....	\$125.00/HR
Field Construction Observer .....	\$105.00/HR
Utility Specialist .....	\$140.00/HR
Telecommunications Designer.....	\$115.00/HR
Telecommunications Field Person .....	\$90.00/HR
GIS Manager .....	\$160.00/HR
GIS Analyst .....	\$110.00/HR
Post Processing GPS Data .....	\$110.00/HR
Right-of-Way Project Manager.....	\$160.00/HR
Right-of-Way Attorney.....	\$150.00/HR
Right-of-Way Agent .....	\$135.00/HR
Administrative .....	\$100.00/HR
Clerical .....	\$75.00/HR
GPS .....	\$37.00/HR/Receiver

Monitoring Plan Implementation & Storm/Wastewater Design Services  
 Scope of Services  
 January 15, 2018



**CobbFendley 2018 Rate Sheet**  
 (Continued)

**SUBSURFACE UTILITY ENGINEERING**

One-Man Designating Crew (4-Hour Minimum) .....	\$100/HR
Two-Man Designating Crew (4-Hour Minimum) .....	\$160/HR
Vacuum Excavation Truck with 2 Technicians (Vac 3000 & 4000) (4-Hour Minimum) ...	\$280/HR
Vacuum Excavation Truck with 2 Technicians (Vac 6000) (4-Hour Minimum) .....	\$300/HR
Ground Penetrating Radar with 1 Technician (4-Hour Minimum) .....	\$250/HR
Traffic Control Officer .....	@ Cost + 10%
Traffic Control (Lane Closures, etc.) .....	To Be Negotiated
Permits (Local, State, etc.) .....	@ Cost + 10%
Designation & Traffic Control Vehicles .....	\$3.40/Mile
Location Vehicles .....	\$6.80/Mile

**REIMBURSABLE EXPENSES**

Technology Fee (*) .....	\$3.75/HR
Consultant or Specialty Contractor (Outside Firm) .....	@ Cost + 10%
Courier, Special Equipment Rental .....	@ Cost + 10%
Reasonable Out of Town Travel Expenses (Air, Hotel, Rental, etc.) .....	@ Cost
Mileage (Standard Car or Truck) .....	IRS Approved Rate
Per Diem for Out of Town Travel (Per Day/Person) .....	\$36/Day
Title Plant Charges .....	@ Cost + 10%
Other Misc. Expenses Related to the Project .....	@ Cost + 10%

**In-House Reproduction:**

- Copies (Up to 11" x 17") .....
- Color Prints (Up to 11" x 17") .....
- Color Prints (Larger than 11" x 17") .....
- Bluelines (All Sizes) .....
- Bond Prints (All Sizes) .....
- Mylar Prints .....
- Vellum Prints .....

(\*) Technology charges added to each billable man-hour.

Monitoring Plan Implementation & Storm/Wastewater Design Services  
Scope of Services  
January 15, 2018



## 2018 MWM DesignGroup Rates

Labor Categories	Total Billable Rate
Licensed Professional IV/Principal	\$ 260.00
Licensed Professional III/Sr Project Manager	\$ 195.00
Licensed Professional II/Sr Project Manager	\$ 163.00
Licensed Professional I/Project Manager	\$ 134.00
Engineering/Arch Support Staff II	\$ 122.00
Engineering/Arch Support Staff I	\$ 92.00
Sr Technician/CAD Manager	\$ 112.00
Technician	\$ 98.00
Clerical	\$ 64.00

Monitoring Plan Implementation & Storm/Wastewater Design Services  
 Scope of Services  
 January 15, 2018



**FEE SCHEDULE FOR GEOTECHNICAL CONSULTING**

**1. Engineering and Technical Personnel**

1.1. Senior Consultant/ Project Principal .....	\$	255.00/hour
1.2. Senior Project Manager .....	\$	215.00/hour
1.3. Project Manager .....	\$	185.00/hour
1.4. Senior Geotechnical Engineer .....	\$	175.00/hour
1.5. Registered Geologist .....	\$	165.00/hour
1.6. Laboratory Manager .....	\$	95.00/hour
1.7. System Specialist .....	\$	165.00/hour
1.8. Senior Engineering Technician .....	\$	95.00/hour
1.9. Technician and Draftsperson .....	\$	85.00/hour
1.10. Admin. Assistant .....	\$	65.00/hour

**4. Report Reproduction and Miscellaneous**

4.1. Outside services, printing, reproduction, etc. ....	\$	Cost + 10%
4.2. Outside technical assistance .....	\$	Cost + 10%
4.3. Transportation .....	\$	\$0.55/mile
4.4. Pickup Truck .....	\$	75.00/day
4.5. Per Diem for out of town, overnight lodging .....	\$	155.00/day

**Rates for other tests and services quoted on request  
 January, 2018**

TFC Contract No. 16-101-005  
Amendment No. 5  
Cobb Fendley & Associates, Inc.  
Project No. 16-018-8001

**TFC CONTRACT NO. 16-101-000**

**EXHIBIT M – AMENDMENT NO. 5**

**OWNER'S REQUIREMENTS OF INSURANCE (10 PAGES)**

**OWNER'S REQUIREMENTS OF INSURANCE**

- 1.1 Commencing on the Effective Date, the Site Services Engineer (“SSE”) shall, purchase, maintain and keep in full force and effect such lines of insurance coverage as will protect SSE, Owner, and the Owner Group from claims which may arise out of or result from SSE’s Services or Work, regardless of whether the Services or Work are performed by SSE, SSE Personnel, or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable (including at a minimum the following minimum insurance coverages and limits; provided, however, if other Contract Documents require insurance coverage or minimum limits that are greater than those listed below in this Attachment, the minimum limits in the other Contract Documents shall control and shall be provided by SSE). For purposes of this Attachment (Owner’s Requirements of Insurance), the term “Owner Group” means the Texas Facilities Commission, P.O. Box 13047, Austin, Texas 78711, its officials, directors, employees, representatives, and volunteers.
- 1.2 SSE represents and warrants it has carefully reviewed its insurance program with its legal and risk advisors and has determined its insurance policies comply with the insurance requirements in this Agreement, and further acknowledges a continuing obligation to ensure its insurance policies remain compliant herewith. Within two (2) business days of a written request by Owner, SSE shall submit for independent review by Owner’s consultants, true and complete copies of SSE’s policies of insurance in electronic form. In addition, upon conducting such review, if Owner’s consultants determine SSE’s insurance policies contain deficiencies that cause such policies to fail to comply with the requirements of this Agreement, SSE agrees to reimburse Owner for all costs and fees of its consultants incurred in attempting to resolve such policy deficiencies by modification or special endorsement thereof. Owner’s review of SSE’s policies of insurance shall in no way excuse SSE from any of the requirements set forth herein. In the event Owner enters into contract with the SSE before any such deficiencies are resolved, Owner does not waive, but explicitly reserves, the right to bring, after (i) the occurrence of any loss or damage for which insurance is required hereunder, or (ii) after the denial of a claim for coverage for such loss or damage, an action or Claim against SSE to recover directly from SSE any damages, including attorney’s fees and other costs, Owner incurs as a result of SSE’s failure to secure and maintain the insurance required hereunder. SSE acknowledges and agrees that any period of limitations shall not begin to run or, alternatively, shall be tolled until the time of the later of such occurrence or denial.
- 1.3 Statutory Worker’s Compensation and Employer’s Liability Insurance with minimum limits of not less than indicated below. SSE shall require Subcontractors to provide Workmen’s Compensation and Employer’s Liability Insurance with the same minimum limits. The policy must be in the name of the SSE and contain an endorsement naming Owner as the Alternate Employer. 1.03.1 By execution of an Agreement, SSE thereby certifies, pursuant to Tex. Lab. Code, §406.096(a), that A/E provides workers’

compensation and employers’ liability insurance for all employees employed on this public project with limits of not less than those required below.

1.3.2 As per Tex. Lab. Code §406.096(b), SSE shall require each Subcontractor to certify in writing to the SSE that said Subcontractor provides workers’ compensation and employers’ liability insurance for all of Subcontractor’s employees employed on this public project. SSE shall forward said certifications to Owner within ten (10) days of the Effective Date of the Agreement.

1.3.3 The policy must include an Other States Endorsement to include the State of Texas if SSE’s business is domiciled outside the State of Texas.

Required Limits of Coverage – Statutory limits, with Employer’s Liability Coverage as follows:

Bodily Injury by Accident	\$1,000,000.00
Bodily Injury by Disease Each Employee	\$1,000,000.00
Bodily Injury by Disease Policy Limit	\$1,000,000.00

1.4 Commercial General Liability (“CGL”) Insurance with minimum limits of coverage not less than those indicated below, written on an ISO CG 00 01 12 04 coverage form, or a form identical thereto, and shall include Owner Group as additional insureds on its CGL and Excess Liability policies on a combination of unmodified ISO endorsements CG 20 10 01 and CG 20 37 10 01, or their equivalent. Such policies shall contain no endorsements or policy forms reducing, limiting or excluding in any way the scope of coverage afforded under such form, including without limitation any endorsements/forms excluding or limiting coverage for the following:

- a. Liability assumed by SSE under a written agreement, including any contractual liability limitation endorsement restricting coverage to only liability that would exist in the absence of a contract, such as the ISO CG 21 39 or its equivalent, or any amendment of insured contract definition endorsement such as the ISO CG 24 26 or its equivalent;
- b. Explosion, collapse, underground property damage, blasting, blowouts, cratering, or the like, including any Explosion, Collapse And Underground Property Damage Hazard endorsement such as the ISO CG 21 42 or ISO CG 21 43 endorsements, or their equivalent;
- c. Cross-liability between insureds;
- d. Injury to independent contractors and employees of independent contractors;
- e. Any exclusion relating to damage to work performed by Subcontractors on behalf of SSE such as the ISO CG 22 94 or ISO CG 22 95, or their equivalent;

- f Any type of classification or business description limitation endorsement;
- g Any type of endorsement excluding coverage for construction defects in the completed operations phase;
- h Any type of endorsement modifying the employer’s liability exclusion;
- i Any type of habitational or residential exclusion;
- j Any type of punitive, exemplary or multiplied damages exclusion; and
- k Any type of subsidence exclusion if the SSE is engaged in any type of earth movement work, including but not limited to soil compaction, fill, or installation of storm or sewer drains.

The CGL policy shall at a minimum include the following coverages:

1. Bodily injury and Property damage on an “Occurrence” basis
2. Premises & Operations Liability
3. Products/Completed Operations Liability (to be maintained three years after Substantial Completion)
4. Personal and Advertising Injury Liability
5. Electronic Data Liability coverage under an endorsement equal to ISO CG 04 37 with a minimum sublimit of liability equal to the minimum amount required hereunder for the CGL policy.
6. The policy shall include ISO endorsement CG 2503, Designated Construction Projects General Aggregate Limit, or its equivalent.

Minimum CGL limits of coverage required:

Each Occurrence: \$2,000,000.00	General Aggregate: \$4,000,000.00
Products & Completed Operations Aggregate	\$4,000,000.00
(to be maintained through 2018 unless negotiated beyond that date with the Owner)	
Personal and Advertising Injury	\$2,000,000.00
Contractual Liability	\$2,000,000.00

If the limits of coverage required above are below the actual limits of coverage in SSE’s primary commercial liability insurance policy, the above required limits of coverage shall be deemed to be automatically increased to the amount of such higher actual limits to avoid a gap in coverage that would preclude coverage under the excess/umbrella policy for failure of the underlying policy to exhaust its policy limits.

- 1.5 Business Automobile Insurance for all owned, non-owned, and hired vehicles with the limits of coverage shown below.

Combined Single Limit Bodily Injury & Property Damage \$1,000,000.00

- 1.6 Excess Liability Insurance over Employers’ Liability, CGL, Commercial Automobile Liability Policies, with the limits shown below, following form over and affording coverage no less broad than the coverage in the underlying policies, with the limit of coverage shown below.

Excess Liability Insurance (Per Claim and in the Aggregate) \$10,000,000.00

- 1.7 Professional Liability Insurance shall be provided by SSE to cover the professional liability arising out of or in connection with any negligent act, error or omission of all SSE Personnel, including all design professionals and any non-professional SSE Personnel, and all members of any subconsultant firm or any joint venture or other firm of the SSE acting for, in combination with, on behalf of, or under the direction or control of the SSE in the performance of any Services required under this Agreement, or arising from or in connection with the coordination, management or oversight of such SSE Personnel. This policy shall not include any type of exclusion or limitation of coverage applicable to claims arising from: (i) bodily injury or property damage where coverage is provided on behalf of design professionals or subcontractors; (ii) habitational or residential operations; (iii) pollution, mold and/or microbial matter and/or fungus and/or biological substance; (iv) punitive, exemplary or multiplied damages; (v) contractual liability caused by, related to, or arising from a wrongful act of the SSE or SSE Personnel in the performance of professional services (or any limitation or exclusion that restricts coverage to only liability that would exist in the absence of contract); or (vi) design/build services.

Professional Liability Insurance \$10,000,000.00 Occurrence/\$10,000,000.00 Aggregate

- 1.8 Cyber/Privacy Liability Insurance Policy shall be provided by the SSE to cover risk of loss to electronic data. The policy must include coverage for electronic vandalism to electronic data, including coverage for willful electronic alteration of data, introduction of viruses which impact electronic data, unauthorized use of electronic data, or denial of service to web site or email destinations.

\$500,000 applicable to each location where original information (electronic data) is stored

\$100,000 away from premises

- 1.9 Each of SSE's liability insurance policies (excluding only SSE's workers' compensation/employers' liability and professional liability policies), shall be endorsed to provide that they are **primary to and non-contributing** with, any other insurance carried by, or for the benefit of the Owner Group. Insurance may be provided under a single limit policy, or two or more policies with combined limits for the required amount of coverage. SSE's Commercial General Liability primary policies shall include a per- project aggregate endorsement. If any insurance SSE furnishes shall be, or become at risk of being, reduced diminished or exhausted by claims thereon, SSE agrees to supplement, increase and/or replace such insurance with other insurance to ensure that SSE has available at all times the coverage required hereunder.
- 1.10 SSE's workers' compensation, employers' liability, commercial automobile liability, CGL, excess liability, professional liability and pollution liability insurance policies shall be endorsed to waive all rights of subrogation in favor of the Owner Group. With respect to all such policies, SSE waives any and all rights of recovery or subrogation against the Owner Group.
- 1.11 The Owner Group shall be included as additional insureds without limitation on all policies required herein (except workers' compensation, employers' liability and professional liability policies), under the form of an additional insured endorsement providing the maximum protection to Owner allowed by applicable law, except as otherwise expressly stated herein. SSE represents and warrants that:
- a SSE's policies of liability insurance, including SSE's commercial general liability, commercial automobile liability, and excess liability insurance policies have been endorsed to cover the Owner Group as additional insureds to the maximum extent permitted by applicable law, or as otherwise set forth herein, with respect to liability arising out of Work performed by or for SSE, including ongoing and completed operations in connection with this Contract (and such coverage provides for the protection of each insured against claims of liability by another insured, under a severability of interests clause).
  - b Such policies of insurance have also been endorsed to cover as an additional insured any third party to the extent required by the Contract Documents.
  - c Such endorsements provide as to each additional insured, at a minimum, coverage to the limits of each such policy for at least each Claim to the same extent that SSE is obligated to indemnify and defend the additional insured as an Indemnified Party under the Contract.
  - d Access to originals or certified copies of required insurance policies have been provided to Owner for review.

- e Attached hereto are true and correct copies of the following:
- (i) current certificates of insurance describing each of the policies of insurance required hereunder; and
  - (ii) all policy endorsements required hereunder.
- 1.12 All policies shall obligate the insurer to notify the Texas Facilities Commission (Attn: Cassandra Cox, CISR, Insurance Analyst), P.O. Box 13047, Austin, Texas 78711, of any (i) non-renewal; (ii) cancellation; or (iii) material changes, in writing, at least 30 days prior to any such non-renewal, cancellation or change. All policies shall require at least ten (10) days' notice of cancellation to Owner in the event of non-payment of premiums by SSE.
- 1.13.1 "Material Change" means any of the following changes to the Policy during the term of the Policy:
- 1.13.1.1 a change in the policy period;
  - 1.13.1.2 a material revision to, or removal of, a coverage section;
  - 1.13.1.3 a reduction of the amount of limits of insurance, provided such reduction is not the result of payment of damages, medical expenses, or claim expenses; or
  - 1.13.1.4 an increase of the amount of any self-insured retention(s)
- SSE shall not cause or permit its insurance to be canceled, reduced, restricted, limited, or invalidated.
- 1.13 All SSE's insurance shall be issued by insurance carriers licensed to do business in Texas at the time the policy is issued and rated by A.M. Best Company as A-VII or better, confirmed by one or more insurance certificates conforming to the following requirements:
- a. Certificates of insurance shall be prepared on an Acord 25 (2010/05) form;
  - b. Certificates shall designate Owner as certificate holder, together with Owner's mailing address;
  - c. The named insured's name must match SSE's name as shown in this Agreement;
  - d. Certificates shall list each insurance company producing each form of coverage, together with the applicable policy number and policy date;
  - e. Certificates shall include the name, address, phone number, fax number and email address of the issuing producer, and the signature of the authorized representative of the producer;

- f. Certificates for all applicable policies shall attach copies of all applicable additional insured endorsements;
- g. All deductibles and self-insured retentions shall be disclosed on the certificate;
- h. Certificates of applicable policies shall disclose any designated construction project(s) general aggregate limit (Owner reserves the right to require notice of replenishment and placement of supplemental coverage if any aggregate limit is exhausted during the applicable policy period);
- i. Certificates shall attach all primary and non-contributory endorsements required herein;
- j. Certificates shall attach waivers of subrogation applicable to all coverages required herein;
- k. Certificates shall attach copies of all notice of cancellation terms from all policies required herein;
- l. Name(s) of the Project(s) as described in this Contract shall be listed in the certificate;
- m. For Professional Liability policies, include in writing on the certificate the coverage form under which the respective line of coverage is written – either:
  - (i) Claims-made form; if the coverage form declared on the Certificate is the Claims-made form, the “Retroactive-date” for this line of coverage must also be included on the Certificate as well; or
  - (ii) Occurrence basis – no additional wording required.
- n. The Owner’s Project/Contract number(s) along with its descriptor caption must be included in the Description of Operations section located in the bottom half of the certificate forms.
- o. Certificate Holder – Owner Group shall be shown as the certificate holder in the certificate holder section located in the bottom half of the certificate form as follows:

Texas Facilities Commission  
Attention: Insurance Analyst  
P.O. Box 13047  
Austin, Texas 78711-3047

- p. Distribution of Completed Certificates - Completed Certificates shall be distributed by the SSE as follows:
- 1) Original shall be sent:
    - a. By Mail:

Texas Facilities Commission  
Attention: Insurance Analyst  
P.O. Box 13047  
Austin, Texas 78711-3047
    - b. By E-Mail: [Carol.Palermo@tfc.state.tx.us](mailto:Carol.Palermo@tfc.state.tx.us)
- 1.14 With respect to any coverage maintained on a “claims-made” policy form, SSE shall maintain such coverage through 2018 unless negotiated beyond that date with the Owner. Coverage under any such policy form shall include a retroactive date based on the effective date of contract for the first performance of professional design services for the Project.
- 1.15 SSE shall not commence Services under this Contract until SSE has obtained all required insurance and until such insurance has been accepted by Owner’s Approval. Owner’s approval of SSE’s insurance shall not relieve or decrease the liability of SSE hereunder. Owner shall have no duty to pay or perform under this Agreement until all certificates of insurance and required insurance policies have been confirmed by Owner’s advisors to comply with the requirements set forth herein. SSE’s failure to fulfill these insurance requirements shall not be a basis for any adjustment to SSE’s compensation or schedule. Owner reserves the right to terminate this Agreement for convenience without any expense or liability in the event SSE fails to secure all insurance required herein within ten (10) days of SSE’s execution of the Agreement.
- 1.16 If SSE fails to timely obtain, maintain or renew the insurance required herein and to provide Owner with acceptable evidence thereof, Owner shall have the right, but not the obligation, to, among all other available remedies at law and in equity: (1) procure such insurance and reduce the amount of this Contract (or any other agreement between the Owner and SSE) by the cost thereof; and/or (2) deem as a material breach of this Contract the SSE’s failure to do so. Within five (5) calendar days of any cancellation or non- renewal of any required line of insurance coverage, the SSE shall provide Owner a replacement certificate of insurance with all applicable endorsements included therewith. Owner shall have the right, in its sole discretion, to suspend the SSE’s performance or terminate this Contract should there be a lapse in coverage at any time during this Contract. In addition to any other remedies available to Owner, Owner shall have the right, upon the SSE’s failure to provide and maintain any insurance or policy endorsements to the extent and within the time herein required, to withhold any payment(s) which become due to the SSE hereunder (or under any other agreement

- between the Owner and SSE) until the SSE demonstrates compliance with the insurance requirements of the Contract. At Owner's discretion, SSE may be disqualified from eligibility to participate in any other or future projects with the Owner for failure to comply with the insurance requirements herein.
- 1.17 Nothing herein shall reduce or alter any obligation of SSE to indemnify, defend or hold harmless the Indemnified Parties identified in the Contract. SSE's obligations for loss or damage arising out of SSE's Services and Work or operations are not limited to the types or amounts of insurance set forth herein. Losses not covered by the insurance required hereunder shall be paid by SSE.
- 1.18 To the extent Applicable Law allows recovery of attorney's fees in any action or proceeding commenced to enforce the rights of any member of Owner Group as an additional insured under this Contract, SSE agrees to pay Owner as the prevailing party in any such action, in addition to any other relief granted, the actual reasonable attorney fees the Owner has paid or is obligated to pay, and all costs and expenses to enforce such rights, not merely recoverable costs. This provision is independent and severable from any other provision of this Contract and shall be enforceable as a separate agreement.
- 1.19 Owner shall not be under any duty to advise SSE in the event that SSE's insurance is not in compliance with the Contract. SSE shall require all SSE Personnel to carry the types and limits of insurance coverage SSE determines to be necessary and appropriate to protect the Owner and SSE from the risk of loss, taking into consideration the scope of services and work performed by each SSE Personnel. Excepting only Workers' Compensation and Professional Liability insurance policies, SSE shall cause all SSE Personnel to include Owner as an additional insured under each policy of insurance maintained by SSE Personnel. SSE will require evidence of this insurance and additional insured status to be provided by all SSE Personnel prior to their commencement of any work or services, or entering onto any Site in connection with the Project, and copies of this evidence shall be provided to Owner by the SSE.
- 1.20 SSE is responsible for all deductibles and any self-insured retentions under all lines of insurance coverage required by this Agreement.
- 1.21 The stated policy limits of each line of insurance coverage required herein are minimum only and it shall be the SSE's responsibility to determine what policy limits in excess of such minimum limits are adequate, and the length of time each line of insurance coverage shall be maintained beyond any lengths of time set forth herein; insurance policy limits are not a limit of the SSE's liability. The insurance requirements set out herein shall not be interpreted as any representation or warranty that the required insurance coverages and limits will necessarily be adequate to fully protect SSE. Unless otherwise set forth herein, SSE shall not cause or permit any required insurance to be cancelled or to lapse prior to the expiration of all common law, statutory and contractual warranty periods.
- 1.22 SSE shall provide Owner with thirty (30) days written notice of erosion of any aggregate limits below the minimum amounts required by the Agreement.

- 1.23 Owner reserves the right to review the insurance requirements and to require deletion, revision, and/or modification of particular policy terms, conditions, limitations, or exclusions (except where policy provisions are established by law or regulations that are binding upon Owner, SSE, or the underwriter) on any such policies when deemed necessary and prudent by Owner based upon changes in statutory law, court decisions, or the claims history of the industry and/or of SSE, provided however, such modifications must be commercially available to SSE. Owner shall make an equitable adjustment to the Contract Sum for any additional cost resulting therefrom.
- 1.24 SSE covenants and agrees that: (i) the failure of Owner to demand certificates of insurance, or proof of compliance with the insurance requirement herein, or failure of Owner to identify a deficiency in any policy required hereunder will not be construed as a waiver of SSE's obligation to maintain the insurance required under this Agreement; (ii) the insurance required under this Agreement does not represent that coverage and limits will necessarily be adequate to protect SSE, nor shall the limits of coverage stated herein be deemed a limitation of SSE's liability to Owner in this Agreement; (iii) and SSE may meet the required insurance coverages and limits with any combination of primary and umbrella/excess liability insurance.

TFC Contract No. 16-101-005  
Amendment No. 5  
Cobb Fendley & Associates, Inc.  
Project No. 16-018-8001

**TFC CONTRACT NO. 16-101-000**

**AMENDMENT NO. 5**

**EXHIBIT B-5**

**SSE'S INSURANCE LETTER DATED FEBRUARY 15, 2018 (1 PAGE)**



February 15, 2018

F. Keith Hall AIA, LEED AP, CTCM  
Sr. Project Manager  
Texas Facilities Commission - Facilities Design & Construction  
1711 San Jacinto Boulevard  
Austin, Texas 78701

**RE: TFC Project 16-015-8000 - CapCom – Monitoring Plan Implementation and Storm/Wastewater Design Services**

Dear Mr. Hall:

Cobb, Fendley & Associates, Inc. ("CobbFendley") has submitted the revised scope and fee proposal under separate cover for services to implement the geotechnical monitoring plan, design the stormwater extension in 18<sup>th</sup> Street and the wastewater replacement in 17<sup>th</sup> Street in the Capitol Complex (CapCom).

Per our conversations about insurance for these services, we are in mutual agreement that none of the teaming partners (subconsultants) on the project other than Balcones Geotechnical, LLC will provide services that require project specific insurance, and therefore CobbFendley will not flow the project specific insurance requirements down to the subconsultant(s) providing the services to implement the geotechnical monitoring plan, design the stormwater extension in 18<sup>th</sup> Street and the wastewater replacement in 17<sup>th</sup> Street.

The insurance for the EOR Excavation Design Package and EOR Utilities Relocation Package was modified to the levels as provided in attached Exhibit M in our contract amendment for the EOR Excavation Design Package (Amendment 3) and the fee for the project specific insurance was included in Amendment 4 (EOR Utilities Relocation Package services).

Since Amendment 4 covers project specific insurance through the end of 2018 for CobbFendley, Brierley Associates and Balcones Geotechnical, LLC, it will be necessary to negotiate project specific insurance for 2019 and beyond if projects require continued project specific insurance by these firms.

We look forward to implementing these important support activities on these very significant projects for the TFC. These projects will transform the Capitol Complex and we are pleased to be working with the TFC.

Sincerely,  
COBB, FENDLEY & ASSOCIATES, INC.

A handwritten signature in black ink that reads "Dan Warth".

Dan Warth, P.E.  
Project Principal | Vice President

CC: Janie Gribble, AIA, LEED AP