PROFESSIONAL SERVICES SUPPLEMENTAL AGREEMENT #4 FOR

"Heatherwilde Elevated Storage Tank"

STATE OF TEXAS §

COUNTY OF TRAVIS §

FIRM: Freese and Nichols, Inc. ("Consultant")

ADDRESS: 10431 Morado Circle, Building 5, Suite 300

Austin, Texas 78759

This Supplemental Agreement No. 4 to a contract for Professional Services is made by and between the City of Pflugerville, Texas, hereinafter called the "City" and Freese and Nichols, Inc, hereinafter called the "Consultant".

WHEREAS, the City and Consultant executed an Agreement for Professional Services, hereinafter called the "Agreement", on the 2nd day of December, 2014 for the Heatherwilde Elevated Storage Tank project in the amount of \$67,570.00; and

WHEREAS, the City and Consultant executed a Supplemental Agreement #1 for Professional Services for the Heatherwilde Elevated Storage Tank project on the 24th day of June, 2015 to extend the end date of the agreement; and

WHEREAS, the City and Consultant executed a Supplemental Agreement #2 for Professional Services for the Heatherwilde Elevated Storage Tank project on the 8th day of August, 2015 increasing by \$19,505.00 the amount payable under the Agreement for a total of \$87,075.00; and

WHEREAS, the City and Consultant executed a Supplemental Agreement #3 for Professional Services for the Heatherwilde Elevated Storage Tank project on the 13th day of October, 2015 increasing by \$69,461.00 the amount payable under the Agreement for a total of \$156,536.00; and

WHEREAS, it has become necessary to amend the Agreement to modify the provisions for the Scope of Services, Work Schedule, and Compensation; and

NOW THEREFORE, premises considered, the City and the Consultant agree that said Agreement is amended as follows:

Article II. Term shall be amended by changing the term of the Agreement to terminate on November 11, 2018 with the ratification and incorporation of the terms of the original agreement.

Article III. Scope of Services, shall be amended as set forth in Attachment A (Phase B – Heatherwilde EST Design, Bid and Construction Phase Services Scope of Work).

Article IV. Compensation to Consultant and Exhibit C (Fee Schedule), shall be amended by by increasing by \$715,871.00 the amount payable under the Agreement for a total of \$872,407.00, as shown by the attached Addendum to Exhibit C (Fee Schedule).

EXECUTED and **AGREED** to as of the dates indicated below.

Denton Navarro Rocha Bernal Hyde & Zech, P.C.

OTEST OF

PFLUGERVII	LLE	CONSUL	TANT
		They	Tan Vinol
((Signature)		(Signature)
Printed Name:	Brandon E. Wade	Printed Na	ame: Victor M. Vasquez
Title:	City Manager	Title:	Principal
Date:		Date:	10-30-15
APPROVED AS	TO FORM:		
		<u>ia</u>	
George Hyde			
City Attorney			

ATTACHMENT A

City of Pflugerville

Phase B - Heatherwilde EST Design, Bid and Construction Phase Services Scope of Work

PROJECT UNDERSTANDING

Freese and Nichols, Inc. (CONSULTANT) was selected by the City of Pflugerville (OWNER) to provide professional services for the Heatherwilde Elevated Storage Tank (EST) project. The Phase A of the project included a hydraulic study and site evaluation to determine the recommended location of the tank. Tank Site B1 – Wilke Ridge South was selected as the proposed tank location.

The Phase B of the project includes design, bid and construction phase services for a proposed 1.5 MG composite EST and associated piping, appurtenances, and site improvements.

The proposed elevated storage tank site will include concrete pavement, yard piping, site drainage, site lighting and security improvements. The elevated storage tank will be a composite tank meeting AWWA D107 criteria. The interior of the tank pedestal will have the following improvements:

- 1. Pedestal will have a maximum of four subfloors with the 1st floor being at grade.
- 2. Each subfloor will be lighted, heated and cooled, equipped with controlled security access and a fire suppression system, as required.
- 3. Pedestal subfloors will be accessible by an elevator and a spiral stair case. A ladder will provide access to the upper platform of the tank and to the bowl.

ARTICLE I

BASIC SERVICES: After authorization from the OWNER, CONSULTANT shall proceed with the Basic Services as described below. CONSULTANT will provide monthly progress reports and schedule updates to the OWNER. CONSULTANT shall render the following professional services in connection with the development of the Project:

A. PROJECT MANAGEMENT: Upon execution of this AGREEMENT and upon receiving a Notice to Proceed from the OWNER, CONSULTANT will provide the project management services for each phase of as follows:

CONSULTANT shall coordinate internally and also with the OWNER for successful project initiation, planning, execution, monitoring/controlling and closeout. CONSULTANT shall manage scope, time, cost, quality, staff resources, communications, risk and procurements as necessary. This includes but is not limited to:

- 1. <u>Consult with the OWNER</u>: to review the scope of services, verify the OWNER'S requirements for the Project and to review available data.
- 2. <u>Monthly Invoicing</u>: FNI will prepare and submit monthly invoices to the OWNER for payment in accordance with Section CO-1.

- 3. <u>1-Page Monthly Reports</u>: FNI will prepare and submit monthly status reports to the OWNER with FNI's monthly invoice. Monthly status reports will comprise a one page summary of the progress to date on the project, work completed during the prior month, work anticipated to be completed during the upcoming month, and discussion of any scope, schedule, or budget issues that may need to be resolved.
- 4. Quality Assurance/Quality Control: FNI will develop and implement a QA/QC plan for the work.
- 5. Prepare Subconsultant Agreements with:
 - a. Holt Engineering Geotechnical Engineering
 - b. Gorrondona and Associates, Inc. Surveying
 - c. Boswell's Consulting Testing Services QC and Constructability Review/Construction Inspection
- **B.** <u>30% Design Phase:</u> Upon execution of this AGREEMENT and upon receiving a Notice to Proceed from the OWNER, CONSULTANT shall provide professional services in this phase as follows:
 - 1. <u>30% DESIGN PHASE</u>: Prepare 30% Design Services that includes:
 - a. FNI will issue design memo(s) to discuss any design options or recommendations for OWNER's review and direction.
 - b. Project Plans for this phase shall consist of:
 - 1) Plan of existing conditions, including site survey
 - 2) A proposed site plan, including yard piping and pavement improvements
 - 3) Elevated Storage Tank
 - a) Plan and profile sections of the elevated storage tank
 - b) Schematic layout of pedestal subfloors
 - c. FNI will coordinate with tank manufacturers to discuss the project and their construction requirements.
 - d. FNI will evaluate power availability and improvements required at the proposed site and coordinate with the electrical utility provider.
 - e. FNI will coordinate with the utility companies for any necessary utility relocations/adjustments that may be required and indicate on the preliminary plans.
 - f. Stormwater and Overflow Analysis
 - 1) Evaluation of the drainage and initial design of necessary stormwater improvements will be completed in accordance with the Engineering Design Manual.
 - a) Analysis will determine pre-project and post-project runoff flow rates and, if necessary, will include preliminary design/sizing of necessary onsite drainage improvements such as swales, storm drain, or detention facilities.

b) Analysis will include verification that offsite drainage infrastructure is adequately sized to convey both site runoff and runoff from the maximum expected flows if the tank overflows without adversely impacting adjacent parcels or infrastructure. If offsite improvements are required, the CONSULTANT will notify the OWNER and provide recommendations for improvements. The design of the offsite improvements are not included as part of this project but can be included, if necessary, as an additional service.

2. ENVIRONMENTAL SERVICES:

a. Site Visit:

Prior to making a field visit, FNI will obtain information for the vicinity such as soils maps, National Wetland Inventory maps, topographic maps, floodplain maps, and other readily available, pertinent data. This information will be evaluated to guide the field survey described below. FNI's scientists will conduct a pedestrian survey of the proposed tank site to identify environmental issues and document baseline conditions, including delineation of wetlands and identification of waters of the U.S.

b. Threatened and Endangered Species:

Conduct reconnaissance-level field surveys within the area of the proposed pipeline corridor to identify potential habitat and document any threatened or endangered (T&E) species encountered. Emphasis will be on federally listed species, but the Texas Parks and Wildlife Department T&E species database will be reviewed and documented. The results of the T&E species review will be documented in a site visit memorandum.

c. Tree Survey:

FNI staff will perform a tree survey in accordance with Section 1 "Tree Survey" from the City's "Tree Technical Manual: Standards and Specifications" dated August 25, 2009. The survey will locate and identify "Protected and Unprotected Trees" as defined in Section 1.2 of the aforementioned document. Using a sub-meter accuracy GPS Unit, the trees will be tagged and include tree location, species, and diameter of the trunk measured at 4.5 feet above ground level. FNI will download the GPS data for processing, and prepare a tree survey report documenting observations made during the survey. The report will include a table with the trees noted during the survey, existing topographical contours, location of property lines, setbacks, easements, and existing right-of-way.

d. Phase I Environmental Assessment:

A Phase I ESA is a preliminary evaluation of the potential for chemical contamination which involves the review of historical land use records for the site, a site visit, and interviews with property owners and tenants. It does not involve the collection and analysis of samples from soils, groundwater, or other environmental media. If a Phase I ESA identifies a significant potential for the occurrence of environmental concerns, then a Phase II ESA is typically recommended to verify the presence or absence of chemical contamination.

This Phase I ESA will be conducted based on standards published by the Environmental Protection Agency All Appropriate Inquiries (AAI) Final Rule and ASTM International (ASTM) under Standard Guideline E1527, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." As a note, a Phase I can

reduce, but not eliminate, the level of risk for unidentified environmental contamination. No Phase IESA can guarantee the absence of contamination. Only sampling and analysis can confirm the presence or absence of chemical contamination at a site. Sampling and analysis are beyond the Scope of Services for this Phase I ESA proposal. Additionally, this Phase I ESA does not include an investigation or survey for the presence of mold, lead-based paint, or asbestos.

In the absence of any standards, the opinions and conclusions found in the Phase I ESA will be based on caution and conservatism by an experienced professional. Environmental regulations are continually changing, and a site determined to be uncontaminated based on current regulations and/or technical standards could be considered a contaminated site in the future based on new or amended regulations or standards.

FNI shall render the following professional services in connection with the completion of the Phase I ESA:

- 1) Historical Land Use Review. FNI will perform an investigation into prior ownership and past land uses on the subject property. FNI will attempt to identify obvious uses of the subject property from the present back to the property's first developed use, or back to 1940, whichever is earlier. To accomplish this task, FNI will review the following records (if available):
 - a) Interviews with City representatives and property owners/tenants
 - b) Historical aerial photography
 - c) City directory abstracts
 - d) Sanborn fire insurance maps
 - e) Recorded environmental easements or liens on the subject property

It is our understanding that title history research will not be conducted as part of this Phase I ESA.

- 2) Regulatory Agency Records Review. FNI will review information found in federal and state regulatory records for the subject property, including records related to environmental-related permits, notices-of-violation, and incidents involving use, disposal, or accidental release of hazardous substances, petroleum products, or other waste materials. Local records, if available, related to the subject property will also be reviewed for indications of environmental concern.
- 3) Site Reconnaissance Visit. FNI will perform a site visit to the subject property. Existing environmental conditions will be documented on the site. FNI will look for potential indicators of environmental concerns such as stained soils or other surfaces, stressed vegetation, exposed piping, and evidence of improper use or disposal of regulated substances. FNI will document the condition of the property using photographs. Copies of photographs will be included in the report.
- 4) Report Preparation. Following the completion of Tasks 1 through 3, a report will be prepared for the subject property documenting our findings. The report will contain a narrative of our findings, recommendations for additional environmental

investigations, as needed, and copies of all data obtained relevant to the subject property. The report will contain appropriate maps, figures, and photographs. FNI will submit three hard copies and an electronic version of the final report to the Client.

e. <u>Texas Antiquities Code Compliance:</u>

Freese and Nichols, Inc. environmental scientists will perform a desktop survey and will provide coordination with Texas Historic Commission (THC) in accordance with the requirements of the Antiquities Code of Texas in an effort to verify the project will not disturb historic/archeological sites. Subsequent activities that may be required by the THC, such as onsite investigations, may require the services of a qualified archeologist as indicated in the Supplemental Services.

- 3. <u>TOPOGRAPHIC SURVEY</u>: FNI will retain Gorrondonna and Associates, Inc. to conduct surveying services as follows:
 - a. The proposed survey scope of work will consist of a boundary survey of Site B1 as indicated and adjacent right of way for connection to existing utilities (this will include locating underground utilities as marked by Texas One Call and as located by the City of Pflugerville).
 - b. Establish vertical and horizontal controls for the project.
 - c. Provide topographical survey and survey of existing features and structures within the project limits including right-of-way lines, property lines, fences, pavement, signs, utility markers, visible utilities, manhole flow lines, trees, etc.
 - d. Research utilities and easements within the project boundaries. Obtain drawings of existing agency and municipal owned utilities and include locations of these utilities in the survey.
 - e. Coordinate utility marking with Dig Tess (level B), conduct survey and locate utilities within the project boundary. Obtain the services of a utility locator service (such as DIGTESS) and coordinate flagging of existing franchise utilities. Tie in the locations of the existing utilities on the survey.
 - f. Provide control staking for the project. Construction staking shall be provided by the Contractor.
 - g. Surveyor will stake bore holes for the geotechnical engineer.
- 4. <u>GEOTECHNICAL INVESTIGATION</u>: FNI will retain Holt Engineering which is a geotechnical drilling and testing laboratory, as a subconsultant and perform the following tasks:
 - a. Coordinate field activities for site access.
 - b. Contact Texas One Call System and local utilities to locate buried utilities within existing easements and right-of-way.
 - c. Provide four (4) borings to a depth of 30 feet at the proposed tank pedestal perimeter and one (1) boring to a depth of 50 feet at center of the proposed tank pedestal.
 - d. During drilling, obtain soil samples for testing using 3-inch diameter Shelby tubes for cohesive soils and using a 2-inch diameter split-barrel sampler for non-cohesive soils. Perform Texas Cone Penetrometer (TCP) tests in rock and rock-like material. Backfill

- borings with cuttings and plug the upper foot of each boring with quick-setting concrete mix.
- e. During drilling, observations of seepage and groundwater will be recorded.
- f. Provide an engineer or geologist to log the borings, direct the drilling, record the blow counts from field tests, and handle and store the samples.
- g. Select samples for laboratory testing, assign tests, and review test results. Tests are expected include classification tests (liquid and plastic limits and percent passing the #200 Sieve), moisture contents, pressure swell tests, and unconfined compression tests.
- h. Review subsurface conditions and soil properties found by the field and laboratory work and discuss the implications for design with FNI engineers.
- i. Holt Engineering will prepare a technical memorandum of the geotechnical investigation presenting the boring locations, boring logs, lab test results and a discussion of general subsurface conditions at the site and their impact on the design. The report will include recommendations for subgrade preparation below the tank, recommended foundation type(s) and allowable loading, pavement design and a general discussion of construction issues.
- 5. <u>ENGINEER'S OPINION OF PROBABLE COST (EOPC)</u>: CONSULTANT will provide a Preliminary EOPC of project.
- 6. <u>MEETINGS</u>: CONSULTANT will prepare meeting agendas and minutes for all meetings and workshops listed below:
 - a. Attend one (1) review workshop to review the OWNER'S comments on the 30% Design.
- 7. <u>DELIVERABLES</u>: Provide copies of plans and other data to the OWNER as required. Furnish electronic and hard copies as shown for the following deliverables:
 - a. Monthly 1-Page reports one (1) electronic copy
 - b. Agendas and Meeting minutes for all meetings one (1) electronic copy
 - c. Updated project schedule one (1) electronic copy
 - d. Environmental Memorandum one (1) electronic copy and one (1) hard copy
 - e. Geotechnical Report one (1) electronic copy and one (1) hard copy
 - f. 30% EOPC one (1) electronic copy
 - g. 30% Design Phase Plans
 - 1) One (1) electronic copy by FTP
 - 2) Four (4) sets of standard 11"x17" half-size plans
 - h. Comment response form with written responses to the City's 30% comments one (1) electronic copy.

- **C.** <u>90% DESIGN PHASE:</u> Upon receiving comments from the OWNER on the 30% Design, CONSULTANT shall provide professional services in this phase as follows:
 - 1. <u>90% DESIGN PHASE</u>: Prepare 90% Design Services that includes:
 - a. If necessary, FNI will issue design memo(s) to discuss any design options or recommendations for OWNER's review and direction.
 - b. FNI will provide 90% complete design plans including site improvements and tank details.
 - c. FNI will provide 90% complete contract documents and specifications. The project will utilize the Competitive Sealed Proposal method of procurement. FNI will use FNI standard contract documents and specifications for the project. FNI will coordinate any specific standards for approved materials, etc. with the City's standard technical specifications.
 - d. FNI will provide the storm water pollution prevention plan for the project.
 - e. FNI will coordinate with the FAA for permitting the proposed elevated tank.
 - f. FNI will coordinate with tank manufacturers to discuss the project and their construction requirements.
 - 2. <u>MEETINGS:</u> CONSULTANT will prepare meeting agendas and minutes for all meetings and workshops listed below:
 - a. Attend one (1) review workshop to review the OWNER'S comments on the 90% Design.
 - b. Attend one (1) public meeting/open house related to the project. The City will provide the location for the public meeting. FNI will provide a power point presentation, if required.
 - c. Attend one (1) City Council meeting related to the project.
 - 3. <u>DELIVERABLES:</u> Provide copies of plans and other data to the OWNER as required. Furnish electronic and hard copies as shown for the following deliverables:
 - a. Monthly 1-Page reports one (1) electronic copy
 - b. Agendas and Meeting minutes for all meetings one (1) electronic copy
 - c. Updated project schedule one (1) electronic copy
 - d. 90% EOPC one (1) electronic copy
 - e. 90% project drawings and specifications
 - 1) One (1) electronic copy by FTP
 - 2) Four (4) sets of standard 11" x 17" half-size plans
 - 3) Four (4) copies of the project contract documents and specifications
 - f. Comment response form with written responses to the City's 90% comments one (1) electronic copy.

- **D.** <u>100%/ISSUED FOR BID (IFD) DESIGN PHASE</u>: Upon receiving comments from the OWNER on the 90% Design Phase deliverables, CONSULTANT shall provide professional services in this phase as follows:
 - 1. 100%/IFB DESIGN: CONSULTANT will provide the following services:
 - a. Incorporate the OWNER'S 90% comments to produce 100%/Issued for Bid plans and specifications.
 - b. Prepare 100%/IFB project drawings and specifications for proposed tank.
 - c. Prepare 100% EOPC.
 - d. FNI will coordinate with tank manufacturers to discuss the project and their construction requirements.
 - e. FNI will submit the tank to the Federal Aviation Administration (FAA) to verify if any special restrictions are required for the project.
 - f. FNI will coordinate with the utility companies for any necessary utility relocations/adjustments that may be required and indicate on the preliminary plans.
 - g. FNI will submit the project to the TCEQ for construction permitting.
 - 2. <u>MEETINGS</u>: CONSULTANT will prepare meeting agendas and minutes for all meetings and workshops listed below:
 - Attend one (1) review workshop to review the OWNER'S comments on the 100% Design.
 - 3. <u>DELIVERABLES</u>: Provide copies of plans and other data to the OWNER as required. Furnish electronic and hard copies as shown for the following deliverables for 100%/IFB Design Phase:
 - a. Monthly 1-Page reports one (1) electronic copy
 - b. Agendas and Meeting minutes for all meetings one (1) electronic copy
 - c. Updated project design/bid/construction schedule one (1) electronic copy
 - d. 100% EOPC one (1) electronic copy
 - e. Issued for Bid drawings and specifications:
 - 1) One (1) electronic copy by FTP
 - 2) Four (4) sets of standard 11"x17" half-size plans
 - 3) One (1) 22"x34" full-size plan sets
 - 4) Four (4) copies of the project contract documents and specifications
- **BID OR NEGOTIATION PHASE:** Upon completion of the design services for the project and approval of bid drawings and specifications by the City, FNI will proceed with the performance of services in this phase as follows:

1. BID PHASE SERVICES

a. The City will set up the projects on CivCast to distribute the bid documents to prospective bidders and plan rooms. Electronic sets of documents will be made available at no charge to plan holders. Hard copy plans will not be provided by the Engineer except as indicated below.

- b. Assist City by responding to questions and interpreting bid documents. Prepare and issue addenda to the bid documents to plan holders if necessary.
- c. Tabulate and analyze the bids received. Review the qualification information provided by the apparent low bidder to determine if, based on the information available, they appear to be qualified to construct the project.
- d. Recommend award of contracts or other actions as appropriate to be taken by City.
- e. Provide Notice of Award of Contract to the Contractor and provide letter with directions for the execution of the contract documents.
- f. Assist City in the preparation of the Construction Contract Documents.

2. MEETINGS:

- a. Prebid Meeting: Assist the City in conducting a pre-bid conference for the construction project and coordinate responses with City. Response to the pre-bid conference will be in the form of addenda issued after the conference. FNI will attend one (1) prebid meeting.
- b. Bid Opening: Attend project bid opening and open bids as required by the City. FNI will attend one (1) bid opening.

3. **DELIVERABLES**:

- a. Conformed Construction Documents
 - 1) For contract execution:
 - Three (3) copies of the contract documents
 - 2) For City during construction:
 - a) Two (2) hard copies in 22"x34" (full-size) format
 - b) One (1) hard copies in 11"x17" (half-size) format
 - c) Three (3) hard copies of contract documents and project specifications.
 - d) One (1) electronic copy in PDF via FTP
 - 3) For Construction Contractor:
 - a) Two (2) hard copies in 22"x34" (full-size) format
 - b) Two (2) hard copies of contract documents and project specifications.
 - c) One (1) electronic copy in PDF via FTP
- **F.** <u>CONSTRUCTION PHASE:</u> Upon completion of the bid or negotiation phase services, FNI will proceed with the performance of construction phase services as described below.
 - FNI will endeavor to protect the City in providing these services however, it is understood that
 FNI does not guarantee the Contractor's performance, nor is FNI responsible for supervision
 of the Contractor's operation and employees. FNI shall not be responsible for the means,
 methods, techniques, sequences or procedures of construction selected by the Contractor, or
 any safety precautions and programs relating in any way to the condition of the premises, the
 work of the Contractor or any Subcontractor.

- 2. FNI shall not be responsible for the acts or omissions of any person (except its own employees or agents) at the Project site or otherwise performing any of the work of the Project.
- 3. FNI will furnish construction contract administration services in support of on-site inspection personnel provided by the Owner.

4. CONSTRUCTION PHASE SERVICES:

- a. Establish and maintain a project documentation system consistent with the requirements of the construction Contract Documents.
- b. Monitor the processing of contractor's submittals and provide for filing and retrieval of project documentation.
- c. Produce monthly reports indicating the status of all submittals in the review process.
- d. Review contractor's submittals, including:
 - 1) Requests for information
 - 2) Modification requests
 - 3) Shop drawings
 - 4) Schedules
 - 5) Certified test reports
 - 6) Other submittals
- e. Monitor the progress of the contractor in sending and processing submittals to see that documentation is being processed in accordance with schedules.
- f. Notify City of Contractor's non-conforming work observed on site visits. Review quality related documents provided by the contractor such as test reports, equipment installation reports or other documentation required by the Construction Contract Documents.
- g. Interpret the drawings and specifications for City and Contractor. Investigations, analyses, and studies requested by the Contractor and approved by City, for substitutions of equipment and/or materials or deviations from the drawings and specifications is an additional service.
- h. Coordinate the work of testing laboratories and inspection bureaus required for the testing or inspection of materials, witnessed tests, factory testing, etc. for quality control of the Project. Assist the City in arranging for testing of materials and laboratory control with Holt Engineering, Inc. during construction. This effort includes an estimate of one (1) laboratory test of soils including moisture density relationship, atterberg limits, and sieve analysis, twenty-four (24) moisture density tests, five (5) test cylinders for concrete testing, for an estimated twenty-five (25) total hours and 350 miles. Any additional tests or miles will be an additional service. Any costs associated with retesting due to failure will be the responsibility of the contractor.
- Consult with and advise the City during construction, make recommendations to the City regarding materials and workmanship, and prepare change orders with the City's approval.
- j. Review samples, catalog data, schedules, shop drawings, laboratory, shop and mill tests of material and test equipment, and other data pursuant to the General Conditions of the

Construction Contract.

- k. Review and comment on monthly and final estimates for payment to Contractor pursuant to the General Conditions of the Construction Contract.
- I. Conduct, in company with the City's representative, a final review of the Project for conformance with the design concept of the Project and general compliance with the Contract Documents, and review and comment on the Certificate of Completion and the recommendation for final payment to the Contractor.
- 5. <u>Thresh-hold Spot Surface Preparation and Coating Inspection Service:</u> FNI will retain Boswell Consulting as a subconsultant and perform the following tasks:
 - a. Provide Thresh-hold/Part Time Spot Surface Preparation and Coating Inspection Service during the interior and exterior coating processes for the elevated tank. Resident representation or full time inspection services are an additional service.
 - b. Services include:
 - 1) Review of project plans and specifications to evaluate that proper surface preparation and coating application techniques are being followed.
 - 2) Submittal of Daily Reports on the days of inspections, including a record of ambient weather conditions, material batch numbers, general and sub-contractor information, and a complete summary of work completed.
 - 3) Checking coating products to verify they meet specs.
 - 4) Checking blast material and anchor profiles of steel.
 - 5) Checking mixing and application of each of the coating products.
 - 6) Checking dry film thickness after each coat is cured and before next coat is applied.
 - 7) Monitoring testing of all immersed areas for pin-holes or holidays.
 - c. Services include providing a coating inspector for a maximum of 216 hours. The estimated hours for inspection is an assumption and the actual required may vary depending on the Contractor's means and methods. During construction FNI will track the inspector's hours and notify the City if additional hours are required to complete the project.
- 6. <u>Welding Inspection Service:</u> FNI will retain Boswell Consulting as a subconsultant and perform the following tasks:
 - a. Provide welding inspection services during the tank construction. Resident representation or full time inspection services are an additional service.
 - b. Inspector shall perform inspection and testing per AWWA D107.
 - c. Services include:
 - Providing a welding inspector at the site for a total of 168 hours. The estimated hours
 for inspection is an assumption and the actual required may vary depending on the
 Contractor's means and methods. During construction FNI will track the inspector's
 hours and notify the City if additional hours are required to complete the project.
 - 2) X-Ray Testing of welds X-ray testing will be conducted as part of 3 trips and the Inspector will test 10 welds per trip.

7. Construction Site Visits/Construction Progress Meetings: Make site visits appropriate to the stage of construction to the site and when requested by OWNER, to observe the progress and the quality of work and to attempt to determine in general if the work is proceeding in accordance with the Construction Contract Documents. In this effort FNI will endeavor to protect OWNER against defects and deficiencies in the work of Contractors and will report any observed deficiencies to OWNER. Visits to the site in excess of the specified number below are an additional service. The anticipated inspections are as follows, refer to supplementary services for additional inspections:

a. Construction Site Visits

1) <u>Weekly Site Visits</u> – FNI will provide site visits twice per week during the duration of the project when work is being performed by the Contractor for a maximum of 68 visits.

2) Special Site Visits

- a) Concrete Foundation: up to three (3) visits
 - i. Verify form dimensions, check anchor bolts & steel placement.
 - ii. Observe concrete placement.
- b) Concrete Wall Inspection:

This item is for inspection of the concrete pedestal wall. The following inspections are included:

- iii. Up to twenty-five inspections: Assuming twenty concrete pours, two visits for mock panel inspection and three extra visits for re-inspection.
- iv. Review of mock construction walls.
- v. Check steel reinforcement in wall section prior to first concrete placement.
 - 1. Verify steel reinforcement is correct size and in correct location.
 - 2. Verify correct space between steel mats to allow proper concrete placement.
- vi. Observe concrete placement/verify lab checking for slump, air, temperature cylinders pulled.
- vii. Observe removal of forms and check for voids, monitor repair of bug holes.

b. Meetings

- Preconstruction Meeting: FNI will assist the OWNER in conducting one (1) preconstruction conference with the Contractor. FNI will conduct the meeting, and prepare meeting addenda and minutes.
- 2) Monthly Meetings: Monthly site meetings will be scheduled to coincide with weekly site visits. FNI will conduct the meetings, and prepare meeting agendas and minutes. Meetings will include discussions of project effort today, projected effort, schedule, submittal status, contractor questions, etc.
- c. Substantial Completion Inspection: up to two (2) visits
- d. <u>Punch List Inspection:</u> up to two (2) visits Conduct, in company with OWNER's representative, a final review of the Project for

conformance with the design concept of the Project and general compliance with the Construction Contract Documents. Prepare a list of deficiencies to be corrected by the contractor before recommendation of final payment.

- e. Final Inspection: One (1) visit
- f. <u>2-Year Warranty Inspection:</u> One (1) visit

FNI will visit the site on or before the expiration of the 2-year warranty period and note any deficiencies. FNI will prepare a list of deficiencies and provide that list to OWNER and Contractor.

g. <u>Warranty Corrections</u>: FNI will be onsite for a maximum of two 8-hour days to observe any corrections identified at the 2-Year Warranty Inspection.

8. DELIVERABLES:

- a. Monthly 1-Page Reports.
- b. Project site visit memos and construction progress meeting minutes
- c. Project Record Drawings:
 - 1) One (1) set of full size plans
 - 2) One (1) CD with Record Drawings in PDF Format, project survey files, project CAD files in AutoCad or Microstation formats and shapefiles in GIS format if needed.

ARTICLE II

SUPPLEMENTARY SERVICES: The following items are to be included in the Contract, but may only be used as directed by OWNER.

None

ARTICLE III

ADDITIONAL SERVICES: Additional Services to be performed by CONSULTANT, if authorized by the OWNER, which are not included in the above described basic or supplemental services, are described as follows:

- A. Interviews for bidders during the competitive sealed bid process.
- B. Subsurface utility exploration (SUE) may be provided by the City as directed by the Engineer. Surveyor shall coordinate and survey uncovered utilities.
- C. Computer generated site and/or tank renderings.
- D. Adding a restroom or any other plumbing to the tank improvements.
- E. Landscaping and irrigation for the site.
- F. Assistance with zoning, platting, and specific use permits.
- G. No improvements to offsite drainage or infrastructure are included as part of this project. If offsite improvements are required to handle site and overflow water, FNI will make recommendations and a fee will be negotiated prior to starting work.
- H. A backup generator or coordination of alternative power sources is not included in the design.
- I. Archeological Desktop Study: If further archeological study is required based on the THC coordination performed by FNI, Amaterra Environmental, Inc., a Registered Professional Archaeologist will be retained to conduct a desktop database review of known cultural resources within and near the project area and make recommendations to comply state and federal laws and regulations. Shovel testing and excavation scope is based on a 1-acre project site. Any additional area is an additional service.
- J. Design, contract modifications, studies or analysis required to comply with local, state, federal or other regulatory agencies that become effective after the date of this agreement.
- K. Performing investigations, studies and analyses of Contractor's substitutions of equipment and/or materials or deviations from the drawings and specifications (does not include "approved by ENGINEER" designation as included in the Contract Documents).
- L. Performing investigations, studies, and analysis of work proposed by construction Contractor to correct defective work.
- M. Services required to resolve bid protests or to rebid the projects for any reason.
- N. Construction meetings and/or visits to the site during the construction phase in excess of the number of trips included in the Basic Services for periodic site visits, coordination meetings, or contract completion activities.
- O. Full-time construction Resident Representation services.

- P. Any services required as a result of default of the Contractor or the failure, for any reason, of the Contractor to complete the work within the contract time.
- Q. Providing services to review or evaluate construction Contractor claim(s), provided said claims are supported by causes not within the control of the FNI.
- R. Providing value engineering studies or reviews of cost savings proposed by construction Contractor after bids have been submitted.
- S. Providing follow-up professional services during Contractor's warranty period outside the scope described in F.7.f and g.
- T. Fees associated with GLO easements/leases or other permits.
- U. Expert representation at legal proceedings or at contested hearings.
- V. Competitive sealed proposals or other alternative procurement methods
- W. Furnishing Special Inspections required under chapter 17 of the International Building Code. These Special Inspections are often continuous, requiring an inspector dedicated to inspection of the individual work item, and they are in addition to General Representation and Resident Representation services noted elsewhere in the contract. These continuous inspection services can be provided by FNI as an Additional Service.
- X. Traffic control design.
- Y. Construction surveying.
- Z. Aesthetic enhancements to the proposed tank and/or the existing tank beyond color changes.
- AA. Adding metering equipment to the project.
- BB. Engineering cost for excessive review of shop drawings shall be an additional service. Excessive review of submittals is defined as any review required after the original review has been made and the first resubmittal has been checked to see that corrections have been made. Construction Contractor is required to pay cost of excessive review to Owner in accordance with provisions in the Owner-Contractor Agreement.

Review	Paid by:
1 st	Basic Services
2 nd	Basic Services
3+	Additional Services

- CC. Additional Environmental Services Freese and Nichols will notify the City if any of the following services will be necessary to comply with USACE permit requirements. The following services can be provided as an additional service and upon written authorization by the City:
 - 1. Performing special environmental studies and other studies not specifically described in the basic scope of services.
 - Presence/absence surveys for federally listed threatened/endangered species.
 - 3. Consultation with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species act.
 - Expert witness representation in legal proceedings or contested permit hearings.
 - 5. Application for General Land Office easements.

- 6. Preparation of permittee-responsible mitigation plans in accordance with the USACE Mitigation Rule dated April 10, 2008 (33 CFR Parts 325 and 332) or other regulations.
- 7. Cultural resources investigation, mitigation, or data recovery activities.
- 8. Mitigation monitoring if required by permit conditions.
- 9. Monitoring for compliance with permit conditions.
- 10. Testing for site contamination, and remediation of contaminated properties.
- 11. Archaeological testing requiring excavations by a backhoe or excavator and any other efforts required by the state beyond those specifically indicated in the Basic Services.

ARTICLE IV

TIME OF COMPLETION: FNI is authorized to commence work on the Project upon execution of this AGREEMENT and agrees to complete the services in accordance with the following schedule:

ELEVATED S	STORAGE TANK BID PACKAGE
Milestone/Deliverable	Calendar Days
Anticipated Notice to Proceed	November 2015
30% Design Phase Submittal	90 days from Notice to Proceed
90% Design Phase Submittal	90 days following Design Review Workshop with
90% Design Phase Submittal	the City for 30% Design Submittal
100% Design/Bid Phase	90 days following Design Review Workshop with
Documents Submittal	the City for 90% Design Submittal
TCEQ Review Time	60 Days
Bid Phase	60 Days for Advertisement and Council Approval
Construction Completion	480 Days for Construction
Provide Record Drawings	30 days from Receipt of As-Builts from Contractor

If FNI's services are delayed through no fault of FNI, FNI shall be entitled to adjust contract schedule consistent with the number of days of delay. These delays may include but are not limited to delays in OWNER or regulatory reviews, delays on the flow of information to be provided to FNI, governmental approvals, etc. These delays may result in an adjustment to compensation.

ARTICLE V

RESPONSIBILITIES OF OWNER: OWNER shall perform the following in a timely manner so as not to delay the services of FNI:

- A. OWNER will coordinate Right of Entry for consultants survey, environmental, geotechnical services for the site.
- B. Designate in writing a person to act as OWNER's representative with respect to the services to be rendered under this AGREEMENT. Such person shall have contract authority to transmit instructions, receive information, interpret and define OWNER's policies and decisions with respect to FNI's services for the Project.
- C. Provide all criteria and full information as to OWNER's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which OWNER will require to be included in the drawings and specifications.

- D. Assist FNI by placing at FNI's disposal all available information pertinent to the Project including previous reports and any other data relative to design or construction of the Project.
- E. Arrange for access to and make all provisions for FNI to enter upon public and private property as required for FNI to perform services under this AGREEMENT.
- F. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by FNI, obtain advice of an attorney, insurance counselor and other consultants as OWNER deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of FNI.
- G. Furnish approvals and permits from all governmental authorities having jurisdiction over the Project and such approvals and consents from others as may be necessary for completion of the Project.
- H. Provide such accounting, independent cost estimating and insurance counseling services as may be required for the Project, such legal services as OWNER may require or FNI may reasonably request with regard to legal issues pertaining to the Project including any that may be raised by Contractor(s), such auditing service as OWNER may require to ascertain how or for what purpose any Contractor has used the moneys paid under the construction contract, and such inspection services as OWNER may require to ascertain that Contractor(s) are complying with any law, rule, regulation, ordinance, code or order applicable to their furnishing and performing the work.
- I. OWNER shall determine, prior to receipt of construction bid, if FNI is to furnish Resident Project Representative services so the Bidders can be informed.
- J. If OWNER designates a person to serve in the capacity of Resident Project Representative who is not FNI or FNI's agent or employee, the duties, responsibilities and limitations of authority of such Resident Project Representative(s) will be set forth in an Attachment attached to and made a part of this AGREEMENT before the Construction Phase of the Project begins. Said attachment shall also set forth appropriate modifications of the Construction Phase services as defined in Attachment SC, Article I, C, together with such adjustment of compensation as appropriate.
- K. Attend the pre-bid conference, bid opening, preconstruction conferences, construction progress and other job related meetings and substantial completion inspections and final payment inspections.
- L. Give prompt written notice to FNI whenever OWNER observes or otherwise becomes aware of any development that affects the scope or timing of FNI's services, or any defect or nonconformance of the work of any Contractor.
- M. Furnish, or direct FNI to provide, Additional Services as stipulated in Article III of this AGREEMENT or other services as required.
- N. Bear all costs incident to compliance with the requirements of this Article VII.
- O. The OWNER agrees to include provisions in the construction contract documents that will require the construction contractor to include FNI and their subconsultants on this project to be listed as an additional insured on contractor's insurance policies.

Pflugerville Heatherwilde EST Phase B - Design and Bid Phase 10/30/2015 Detailed Cost Breakdown

Basic \$ 377,014
Special \$ -

	-												Basic Services		1					1					_		
e Task	Employee	Charles Kucherka	Rebecca Mus	sk Davin Hati	ley Trooper S	uff/ smith Jay Scar	nlon Kimberly	ly Patak William Huff	Brian King	Misty Thomison Patrick Gamel	Ryan Deal	Electrical Engineer VI	Electrical Engineer CAD Designer	Rebecca Sandoval Vimal Nair	Curtis Spraggins Troy Go	odwin Scott Vaughan Robe	t Kinkel Raul Mur	iz Nathan Light	Chris Kaspar	Parris Jones Ron	King Tanner Griffin	Richard Brian	Beach Kimberly Bill Buckley Bill	Metzger	Total Labor	Total Expense	
	Project Role	PM	PE	CAD	Client Re	/PIC Drainage	QC Drainac	age PE Drainage PE	GIS	Structural Environmenta	Environmental	Electrical QC	Electrical PE Electrical CAD	Electrical PE Mech QC	Mech PE Mech	AD Fir	Svs Arch Inte	n Arch CAD	Arch PE	Arch QC Tan	k QC Construction	Construction C	ost Env. QC	Total Hours	Effort	Effort	Sub Effort
0AA4 General Expenses	,																					Esti	mator		s -	\$ 1,150 \$	- S
0BC0 PM - Monthly Invoicing (1 hr/month x 24 months)		8	24																					24 56	\$ 9,156		- S
0BC0 PM - One Page Reports (0.5 hr/month x 24 months)		8	12																					20	\$ 3,446		- S
0BC0 PM - Update Schedule (30%, 90%, 100%, IFB)			4																					4	\$ 656	\$ 34 \$	- S
0BA0 QA and QC - QA/QC		20	8		4							12		4						1	16	16		80	\$ 15,855	\$ 680 \$	- S
0BA0 QA and QC - Interim QA (Prep and Meeting)		2	4																					6	\$ 1,029	\$ 51 \$	- \$
0BC0 PM - Prepare Subconsultant Agreements (4 total)		2	4																					6	\$ 1,029	\$ 51 \$	- \$
0BG0 Meetings - Internal Kickoff Meeting		2	4	1	1												1	1						10	\$ 1,721	\$ 85 \$	- \$
0BG0 Meetings - External Kickoff Meeting		8	6		2																			16	\$ 2,982	\$ 156 \$	- \$
0JA0 Design - Environmental - Site Visit, Threatened and Endangered Species Mem	0,									28	36												2	66	\$ 9,879	\$ 1,041 \$	- s
Tree Survey, Phase I Environmental Assessment										20	- 00												-				
0Al0 Design - THC Coordination									16															16	\$ 2,621	\$ 136 \$	- \$
0JA0 Design - 30% Design Memo(s) to discuss design options		8	16																					24	\$ 4,116		- \$
0JA0 Design - 30% Plans		24	60										52 38	18			40	16	4	3				255	\$ 39,986		- \$
0JA1 CAD (1147 only) - 30% Plans				120																				120	\$ 19,278		- S
0JA0 Design - 30% Coordination with tank manufacturers			8																					8	\$ 1,311	\$ 68 \$	- \$
0JA0 Design - 30% Evaluation of power availability													8											10	\$ -	\$ - \$	- \$
OJA0 Design - 30% Coordination with utility companies OJA0 Desgin - 30% Evaluation of offsite drainage capacities for tank overflows								22 76	40				8	2										115	\$ 1,525 \$ 18,182		- 3
0BC0 PM - Survey Coordination			1			4		2 /6	12															115	\$ 18,182		- 3
0BC0 PM - Survey Coordination 0BC0 PM - Geotechnical Coordination			2	<u>-</u>																				2	\$ 328		- 3
0AF0 Sub 1 - Surveying Services																									ş 320	\$ 17 \$ e e	11,500 \$
0AG0 Sub 2 - Geotechnical Services																										2 - 2	16,514 \$
Expense - Accessibility Specialist																									•	\$ 1,725 \$	10,314 \$
0JA0 Design - 30% Engineer's Opinion of Probable Cost (EOPC)		1	1																			-	0	10	\$ 1,804		- 4
OBGO Meetings - 30% Review Workshop			6														1	1				-	0	14	\$ 2,384		- 4
0JA0 Design - 30% Comment Response Form		1	4															<u>'</u>						5	\$ 843		- 9
0JA0 Design - 90% Design Memo(s) to discuss design options		2	9																					10	\$ 1,685		- 9
OJAO Design - 90% Plans		24	48			1	Α	4 12		4			96 76	6	40 49	20	4 120	32		3				538	\$ 81,656		- 4
0JA1 CAD (1147 only) - 90% Plans				128				· · · · · · · · · · · · · · · · · · ·		-			30 70		70 70	20	7 120	<u>02</u>						128	\$ 20,564	\$ 1,088 \$	- 4
0JA0 Design - 90% Contract Documents and Specifications		24	40	120									48	12					40	1				165	\$ 27,881		- \$
0JA0 Design - 90% Storm water pollution prevention plan		1	4				2	2		24				······· ·										31	\$ 5,702		- \$
0JA0 Design - 90% Coordination with FAA		1	4				-																	5	\$ 843	\$ 43 \$	- \$
0JA0 Design - 90% Coordination with tank manufacturers			4																					4	\$ 656	\$ 34 \$	- S
0BG0 Meetings - 90% Review Workshop		8	6														6	4						24	\$ 3,833		- S
0BG0 Meetings - 90% Public Meeting		8	16																					24	\$ 4,116		- S
0BG0 Meetings - 90% City Council Meeting		8	6																					14	\$ 2,478	\$ 205 \$	- \$
0JA0 Design - 90% Engineer's Opinion of Probable Cost (EOPC)			1																			· · · · · · · · · · · · · · · · · · ·	4	5	\$ 891	\$ 43 \$	- \$
0JA0 Design - 90% Comment Response Form		1	4																					5	\$ 843	\$ 43 \$	- \$
0JA0 Design - 100% IFB Plans		4	16														40	30	8	6				104	\$ 15,746	\$ 884 \$	- \$
0JA1 CAD (1147 only) - 100% IFB Plans				16																				16	\$ 2,571	\$ 136 \$	- \$
0JA0 Design - 100% IFB Contract Documents and Specifications		2	16																					18	\$ 2,995	\$ 153 \$	- \$
0JA0 Design - 100% Engineer's Opinion of Probable Cost (EOPC)			1																				4	5	\$ 891	\$ 43 \$	- \$
0AA4 General Expenses																									\$ -	\$ - \$	- \$
0FB0 Bid Phase Services - Advertisement			2																					2	\$ 328		- \$
0FB0 Bid Phase Services - Responding to bid phase questions		2	8	4									8 6	4				8						40	\$ 6,475		- \$
0FB0 Bid Phase Services - Bid tab and qualification review		1	6																					7	\$ 1,170		- \$
0FB0 Bid Phase Services - Recommendation for award of contract			1																					1	\$ 164		- \$
0FB0 Bid Phase Services - Notice of award			1																					1	\$ 164		- \$
0FB0 Bid Phase Services - Prepare construction contract documents			1	2									2 12											17	\$ 2,701		- \$
0FB0 Bid Phase Services - Prebid Meeting		6	6																					12	\$ 2,105		- \$
0FB0 Bid Phase Services - Bid Opening		4	4																					8	\$ 1,403	\$ 154 \$	- \$
Conformed Construction Contract Documents																											
Contract Execution - Three (3) copies																											
City Copies - Two (2) hard copies in 22"x34" (full-size) format																											
- One (1) hard copies in 11"x17" (half-size) format																											
OFBO - Three (3) hard copies of contract documents and project specif	ications.		4	4																				8	\$ 1,298	\$ 68 \$	- \$
- One (1) electronic copy in PDF via FTP																											
Contractor Copies - Two (2) hard copies in 22"x34" (full-size) format																											
- Two (2) hard copies in 11"x17" (half-size) format																											
- One (1) electronic copy in PDF via FTP																											
Total Basic	Services Hours	186	373	276	7	5	28	8 88	28	4 52	36	12	214 132	42 4	40 48	20	4 208	92	52	13 1	16	16 1	16 2	24 2.03	8 \$ 327.779	\$ 21,221 \$	28.014 \$
													\$ 30,784 \$ 21,200													, · · · ·	

Pflugerville Heatherwilde EST Phase B - Design and Bid Phase 10/30/2015 Detailed Cost Breakdown

Basic \$ 377,014 Special \$ -

													Deta	ailed Cost Br	eakdown																		
Phase T	Гask	Expenses	Tech Charge	Print Shor Binding		op - Print Shop Color			Print Shop - Plotter - Other	Miles	Registered Accessability Specialist	Regulatory Database Search			Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Other	Total Exp Effort
		General Expenses											1000																			!	\$ 1,150
2 01	BC0	PM - Monthly Invoicing (1 hr/month x 24 months)	56	6																												5	\$ 476
		PM - One Page Reports (0.5 hr/month x 24 months)	20	0																													\$ 170
		PM - Update Schedule (30%, 90%, 100%, IFB) QA and QC - QA/QC	80	4																												3	s 34
		QA and QC - Interim QA (Prep and Meeting)	00	6																												-	\$ 51
		PM - Prepare Subconsultant Agreements (4 total)		6																												,	\$ 51
		Meetings - Internal Kickoff Meeting	10	0																												1	\$ 85
2 0	BG0	Meetings - External Kickoff Meeting	16	6						30																						,	\$ 156
2 0	OALC	Design - Environmental - Site Visit, Threatened and Endangered Species Memo,	66	6						30		400																					\$ 1,041
		Tree Survey, Priase i Environmental Assessment		-																													
		Design - THC Coordination Design - 30% Design Memo(s) to discuss design options	16																														\$ 136 \$ 204
		Design - 30% Design Memo(s) to discuss design options Design - 30% Plans	255																													-	\$ 2,168
		CAD (1147 only) - 30% Plans	120	0																													\$ 1,020
		Design - 30% Coordination with tank manufacturers	1																													/	\$ 68
2 0	JA0	Design - 30% Evaluation of power availability		_																												1	\$ -
		Design - 30% Coordination with utility companies	10	0																												1	\$ 85
		Desgin - 30% Evaluation of offsite drainage capacities for tank overflows	115	5																												:	\$ 978
		PM - Survey Coordination	3	3																													\$ 26
		PM - Geotechnical Coordination	1 2	2																													i 17
		Sub 1 - Surveying Services																															- ؤ
2 0/		Sub 2 - Geotechnical Services	-								1500																						\$ - \$ 1,725
2 0		Expense - Accessibility Specialist Design - 30% Engineer's Opinion of Probable Cost (EOPC)	10	0							1500																					3	\$ 1,725 \$ 85
		Meetings - 30% Review Workshop	14							130																						-	\$ 205
		Design - 30% Comment Response Form		5						100																							\$ 43
		Design - 90% Design Memo(s) to discuss design options	10	0																												7	\$ 85
		Design - 90% Plans	538	8																												1	\$ 4,573
		CAD (1147 only) - 90% Plans	128																													1	\$ 1,088
		Design - 90% Contract Documents and Specifications	165																													,	\$ 1,403
		Design - 90% Storm water pollution prevention plan	31	1																												5	\$ 264
		Design - 90% Coordination with FAA		5																													\$ 43
		Design - 90% Coordination with tank manufacturers		4																												۶	\$ 34
		Meetings - 90% Review Workshop	24							130																							\$ 290
		Meetings - 90% Public Meeting	14							130 130																						- 3	\$ 290 \$ 205
2 0	BGU	Meetings - 90% City Council Meeting Design - 90% Engineer's Opinion of Probable Cost (EOPC)	12	4 5						130																						- 3	\$ 205 \$ 43
2 0) IAO	Design - 90% Comment Response Form		5																												-	s 43
		Design - 100% IFB Plans	104	4																												,	\$ 884
		CAD (1147 only) - 100% IFB Plans	16																													7	\$ 136
		Design - 100% IFB Contract Documents and Specifications	18																													1	\$ 153
		Design - 100% Engineer's Opinion of Probable Cost (EOPC)		5																												1	\$ 43
		General Expenses																														!	\$ -
		Bid Phase Services - Advertisement	2	2																													\$ 17
		Bid Phase Services - Responding to bid phase questions	40	0																													\$ 340
		Bid Phase Services - Bid tab and qualification review		7																													<i>i</i> 60
		Bid Phase Services - Recommendation for award of contract	-	1																													<i>i</i> 9
		Bid Phase Services - Notice of award Bid Phase Services - Prepare construction contract documents		7																													\$ 9 \$ 145
		Bid Phase Services - Prepare construction contract documents Bid Phase Services - Prebid Meeting	11	2						130																						3	\$ 145 \$ 188
		Bid Phase Services - Bid Opening	1	8						130																						7	\$ 154
0		Conformed Construction Contract Documents Contract Execution - Three (3) copies		-						.00																						,	. 104
		City Copies - Two (2) hard copies in 22"x34" (full-size) format																															
		- One (1) hard copies in 11"x17" (half-size) format																															
3 0	FB0	 Three (3) hard copies of contract documents and project specifications. 		8																												!	\$ 68
		- One (1) electronic copy in PDF via FTP																															
		Contractor Copies - Two (2) hard copies in 22"x34" (full-size) format - Two (2) hard copies in 11"x17" (half-size) format																															
		- One (1) electronic copy in PDF via FTP																															
		11																															
		Total Basic Services Items Total Basic Services Expenses Effor	2,038	-			-	<u> </u>	-	840	1,500	400	1,000	-	-			-	-	-		-	-	-			ļ			-	-		
		Total Basic Services Expenses Effor					\$ -	\$ -	\$ -	\$ 555	5 \$ 1,725	\$ 460	\$ 1,150) \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	- \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - 5	
Phase T		Subconsultants		(Coating:	Holt s) (Geoted	ch)																											Total Sub Effort
		Sub 1 - Surveying Services	10,000	0																													\$ 11,500
2 0/	AG0	Sub 2 - Geotechnical Services			14,36																												\$ 16,514
		Total Basic Services Subconsultants Cos Total Basic Services Subconsultants Effor	t \$ 10,000	\$ -	\$ 14,	360 \$ -	\$ -	\$ -	S -	\$ -	\$ -	\$ -				\$ -	s -	s -	\$ -	s -	s -	\$ -	\$ - \$	-							\$ - \$	ŝ -	
		Total Basic Services Subconsultants Effor	t \$ 11,500	\$	- \$ 16,	514 \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ - !	\$ 28,014

Pflugerville Heatherwilde EST Phase B - Construction Phase 10/30/2015 Detailed Cost Breakdown

														В	asic Service	s																				
Phase Task	Employe	e Charles Kucherk	a Rebecca Musik	c Davin Hat	ley Linda Hu Trooper Sr	ff/ nith Jay Scar	lon Kimberly I	atak William Huff	Brian King	Misty Thomiso	n Patrick Garnel	t Ryan De	eal Electrica Engineer	al Electrical En	cad Des	signer Rebec Sando	a Vimal Nair	Curtis Spraggi	ins Troy Goodwin	Scott Vaughan	Robert Kinkel	Raul Muniz	Nathan Light	Chris Kaspar	r Parris Jones	Ron King Ta	Fanner Griffin	Richard Provolt Brian	Beach Kim	mberly uckley Billy Metzge	Total Hours	Total Labor	Total Expe	nse Total Sub E	fort To	otal Effort
	Project Ro	le PM	PE	CAD	Client Rep/	PIC Drainage	QC Drainage	PE Drainage PE	GIS	Structural	Environmenta	Environme	ntal Electrical	QC Electrical	PE Electrical	CAD Electrica	PE Mech QC	Mech PE	Mech CAD		Fire Sys	Arch Intern	Arch CAD	Arch PE	Arch QC	Tank QC (Construction	Construction Estin	ost Em	v. QC		Effort	Effort			
4 0AA4 Genera	al Expenses																															\$ -	\$ 1,	150 \$	- \$	1,15
(U.5 NF	x 130 total submittals)	1																									65				66	\$ 8,562		561 \$	- \$	9,12
	al Rep - Monitor contractor's submittals																										8				8	\$ 1,030		68 \$	- \$	1,09
4 0FC0 Genera	al Rep - Monthly submittal status report																										16				16	\$ 2,060	\$	136 \$	- \$	2,1
4 0FC0 Genera	al Rep - Review contractor's submittals	12 12	48							2				40				4					30				40				176	\$ 27,841	\$ 1,	496 \$	- \$	29,33
4 0FC0 Genera	al Rep - Coordination with contractor	12	16																	4							40				72	\$ 11,027	\$	612 \$	- \$	11,63
4 UFCU installa	al Rep - Notify contractor of non-conforming work, review test reports, equipment tition reports, etc.	2	2																								2				6	\$ 993	\$	51 \$	- \$	1,04
4 0FC0 Genera	al Rep - Intrepret drawings and specs for RFIs	2	16											8		2		2		2							16				48	\$ 7,529	\$	408 \$	- \$	7,93
4 0FC0 Genera	al Rep - Coordination work of testing labs		2																												2	\$ 344	\$	17 \$	- \$	36
	al Rep - Consult with and advise the City during construction, make recommendations City regarding materials and workmanship, and prepare change orders with the City's al	24	2																												26	\$ 5,043	\$	221 \$	- s	5,26
4 OFCO Genera	all. Be - Assist the City in arranging for testing of materials and laboratory control durin uction to be conducted at the City's expense.	ng	2																												2	\$ 344	\$	17 \$	- \$	36
4 0EC0 Genera	al Rep - Review and comment on monthly and final estimates for payment to Contract nt to the General Conditions of the Construction Contract.	or 2	2									***************************************				***************************************															4	\$ 735	\$	34 \$	- \$	76
4 0FC0 Genera	al Rep - Coating Inspection - Coordination with Sub	2	4																												6	\$ 1,078	\$	51 \$	- \$	1,12
	- Coating Inspection																															\$ -	\$		153 \$	29,15
4 0FG0 Meeting	gs - Weekly Site Visits (up to 68)	180	204																								272				656	\$ 105,257		073 \$	- \$	115,33
	gs - Concrete Foundation (up to 3 visits)	6	4																								12				22	\$ 3,406	\$	386 \$	- \$	3,79
	gs - Concrete Wall Inspection (up to 25)		24																								125				149	\$ 20,206	\$ 2,	920 \$	- \$	23,12
	gs - Preconstruction (1)	6	4																								4				14	\$ 2,376		186 \$	- \$	2,56 6,54
	gs - Site Visits/Progress Meetings (up to 16)																										40				40	\$ 5,148		398 \$	- \$	6,54
	gs - Punch List Inspection (up to 2)	12	8											12		8		10		10							8				68	\$ 11,801	\$	711 \$	- \$	12,51
	gs - Substantial Completion Inspection (up to 2)	16	8																								8				32	\$ 5,536	\$	405 \$	- \$	5,94
	gs - Final Inspection (1 site visit)	16	4																												20	\$ 5,536 \$ 3,820	\$	237 \$	- \$	4,05
	gs - 2 year Warranty Inspection (1 site visit)	12	12																												24	\$ 4,409	\$	271 \$	- \$	4,68
	gs - Warranty Corrections	16	12																								12				40	\$ 6,737		473 \$	- \$	7,21
	al Rep - Monthly One-Page Reports (16 months x 1 hr)	6	16																												22	\$ 3,921		187 \$	- \$	4,10
	I Drawings (CAD)	1	8	12										12	32				4												69	\$ 11,456	\$	587 \$	- \$	12,04
	- Welding Inspection																															\$ -	\$	- \$ 30	625 \$	30,62
4 0BC0 PM - M	fonthly Invoicing (1 hr/month x 24 months), One-Page Reports		32																												32	\$ 5,492		272 \$	- \$	5,76
	Total Basic Services Hou	rs 328	430	12						2				72	32	10		16	4	16			30				668				1,620	\$ 256,151	\$ 22,	928 \$ 59	778 \$	338,85
	Total Basic Services Labor Effo	rt \$ 64.22	2 \$ 73.78	8 6 2	.020 \$	- 6	- \$	- S	- 6	- \$ 343	3 \$ -	S	- S	- \$ 10	.850 S 5	5.386 \$ 1.9	E0 ¢	e 27/	46 \$ 673	¢ 2 422	¢	\$ -	\$ 5,049	e	- S -	¢	\$ 85,972		- 6	- \$ -				•		

	F1.	F	Tech Charge	Print Shop	- Print Shop	o - Print Shop	Print Shop -	- Print Shop -	Print Shop - Plotter -	Miles	Registered Accessability	Regulatory	Misc. Shipping,	Other	Other	Other	Other (Other Ot	ner Oth	er Other	Other O	her Othe	r Other	Total Ex							
ase T	lask	Expenses	rech Charge	Binding	B&W	Color	Bond	Color	Other	Miles	Specialist Specialist	Database Search	Per Diem, Etc.	Otner	Otner	Other	Otner (otner Ot	ner Otr	er Other	Other	Other	Otner	Other	Other	Otner	Other	Otner O	ner Otne	Other	Effort
4 0		General Expenses											1000																		\$ 1,
4 0	JFCU	General Rep - Establish and maintain project doc system (0.5 hr x 130 total submittals)	66	6																											\$
		General Rep - Monitor contractor's submittals	1	3																											\$
		General Rep - Monthly submittal status report	10	6																											\$
		General Rep - Review contractor's submittals	170	6																											\$ 1,
4 0	DFC0	General Rep - Coordination with contractor	7:	2																											\$
4 0	OFC0	General Rep - Coordination with contractor General Rep - Notify contractor of non-conforming work, review test reports, equipment installation reports, etc.		6																											\$
4 0	OFC0	General Rep - Intrepret drawings and specs for RFIs	44	3																											\$
4 0	DFC0	General Rep - Coordination work of testing labs		2																											\$
	FC0	General Rep - Consult with and advise the City during construction, make recommendations to the City regarding materials and workmanship, and prepare change orders with the City's approval.	20	3																											\$
4 0	JI CO	General Rep - Assist the City in arranging for testing of materials and laboratory control during construction to be conducted at the City's expense.		2																											\$
	JFCU	General Rep - Review and comment on monthly and final estimates for payment to Contractor pursuant to the General Conditions of the Construction Contract.		4																											\$
		General Rep - Coating Inspection - Coordination with Sub	(3																											\$
		Sub 3 - Coating Inspection																													\$
		Meetings - Weekly Site Visits (up to 68)	650							6800																					\$ 10
		Meetings - Concrete Foundation (up to 3 visits)	2							300																					\$
		Meetings - Concrete Wall Inspection (up to 25)	149	9						2500																					\$ 2
		Meetings - Preconstruction (1)	14	4						100																					\$
		Meetings - Site Visits/Progress Meetings (up to 16)	40)						1600																					\$ 1
		Meetings - Punch List Inspection (up to 2)	6	3						200																					\$
		Meetings - Substantial Completion Inspection (up to 2)	33	2						200																					\$
		Meetings - Final Inspection (1 site visit)	20)						100																					\$
		Meetings - 2 year Warranty Inspection (1 site visit)	24	4						100																					\$
		Meetings - Warranty Corrections	41)						200																					\$
١ 0	FC0	General Rep - Monthly One-Page Reports (16 months x 1 hr)	2	2																											\$
		Record Drawings (CAD)	69	9																											\$
4 C	0AI1	Sub 3 - Welding Inspection																													\$
		PM - Monthly Invoicing (1 hr/month x 24 months), One-Page Reports	33	2																											\$
		Total Basic Services Items	1,620	-	-	-	-	-	-	12,100	-	-	1,000		-	-	-	-	-		-	-	-	-	-	-	-	-		-	
		Total Basic Services Expenses Effort			- S	- s -	S -	S -	\$ -	\$ 8,001			\$ 1,150	٠.															- \$		\$ 22

Total Basic Services Subconsultants Cost \$
Total Basic Services Subconsultants Effort \$

							EST Phase B - Construct 10/30/2015 etailed Cost Breakdown	ction Phase			
Phase Tas	sk Subconsultants	Gorondonna (Survey)	Boswell (Continue)	Holt (Geotech)							Total Sub Effort
4 0A/	A4 General Expenses	(Survey)	(Coatings)	(Geolecii)							\$ -
4 0FC	C0 General Rep - Establish and maintain project doc system (0.5 hr x 130 total submittals)										\$ -
4 0FC	CO General Rep - Monitor contractor's submittals										\$ -
	C0 General Rep - Monthly submittal status report										\$ -
	C0 General Rep - Review contractor's submittals										\$ -
4 0FC	C0 General Rep - Coordination with contractor										\$ -
	General Rep - Notify contractor of non-conforming work, review test reports, equipment installation reports, etc.										\$ -
	C0 General Rep - Intrepret drawings and specs for RFIs										\$ -
4 0FC	C0 General Rep - Coordination work of testing labs										\$ -
	General Rep - Consult with and advise the City during construction, make recommendations to the City regarding materials and workmanship, and prepare change orders with the City's approval.										\$ -
	General Rep - Assist the City in arranging for testing of materials and laboratory control during construction to be conducted at the City's expense.										\$ -
4 0FC	General Rep - Review and comment on monthly and final estimates for payment to Contractor pursuant to the General Conditions of the Construction Contract.	r									\$ -
4 0FC	C0 General Rep - Coating Inspection - Coordination with Sub										\$ -
4 0A'	Al1 Sub 3 - Coating Inspection		25,350								\$ 29,15
4 0FC	G0 Meetings - Weekly Site Visits (up to 68)										\$ -
4 0FC	G0 Meetings - Concrete Foundation (up to 3 visits)										\$ -
4 0FC	G0 Meetings - Concrete Wall Inspection (up to 25)										\$ -
	G0 Meetings - Preconstruction (1)										\$ -
	G0 Meetings - Site Visits/Progress Meetings (up to 16)										\$ -
	G0 Meetings - Punch List Inspection (up to 2)										\$ -
	G0 Meetings - Substantial Completion Inspection (up to 2)										\$ -
	G0 Meetings - Final Inspection (1 site visit)										\$ -
	G0 Meetings - 2 year Warranty Inspection (1 site visit)										\$ -
	G0 Meetings - Warranty Corrections										\$ -
	C0 General Rep - Monthly One-Page Reports (16 months x 1 hr)										\$ -
	A1 Record Drawings (CAD)										\$ -
4 0A'	Al1 Sub 3 - Welding Inspection		26,630								\$ 30,62