

EXHIBIT A
COMPENSATION FOR PROFESSIONAL SERVICES

League City, Texas

LEAGUE CITY PARKWAY WEST BP & WELL (1,500 GPM)

For the services covered by this Agreement, the City of League City (the City) agrees to pay Sander Engineering Corporation (Professional) as follows:

- A. For Basic Services associated with the design of the **League City Parkway West BP & Well** as described in Exhibit "D", a fee not to exceed \$465,000.00, as further itemized below:

Preliminary Design Phase:	\$ 93,000.00
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Final Design Phase:

1. Professional's in-house services:	\$ 190,000.00
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2. Out-sourced design services (at Cost plus 10%):	
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a. Topographic Survey (per Exhibit "D")	\$ 50,216.00
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b. Sanitary Control Easement (per Exhibit "D")	\$ 6,788.00
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c. Geotechnical services (per Exhibit "D"):	\$ 17,820.00
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d. Traffic Control Plan (per Exhibit "D"):	\$ 0.00
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e. SW3P (per Exhibit "D"):	\$ 0.00
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Contract Bid Phase:	\$ 20,576.00
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Construction Administration Phase: including Limited Field Review of Construction and preparation of "As-Built" Record Drawings:	\$ 62,000.00
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Testing during Construction: Preventive Services, LP	\$ 23,600.00
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Reimbursable Expenses:

For expenses incurred on behalf of the project such as printing and reproduction, delivery charges, ~~application fees, advertising costs, and recording fees~~, expenses will be billed at cost plus 10%, with a total cost not to exceed:

\$ 1,000.00

Total, not to exceed cost:	\$ 465,000.00
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(Any additional services, not outlined above, will be authorized in writing by the City, at a cost reimbursement fee or lump sum fee).

SANDER ENGINEERING CORPORATION

CONSULTING ENGINEERS - SURVEYORS
TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM NO. F-517

2901 WILCREST DRIVE, SUITE 550
HOUSTON, TEXAS 77042

DENNIS W. SANDER, P.E.
President

713-784-4830
FAX 713-784-4052

EXHIBIT B

RATE SCHEDULE

for

LEAGUE CITY PARKWAY WEST BP & WELL

League City, Texas

The Engineering fee for hourly services by the Professional, except surveying which is addressed below, shall be determined by using a multiplier of 2.25 as the overhead and profit factor, times the direct personnel expense. Direct personnel expense is hereby defined as 1.3 times actual salaries paid to employees.

Employee Title Category

Hourly Billing Rate Range

Principal	\$211.37
Senior Project Manager	202.06
Project Engineer, Project Manager	\$128.26 - \$177.52
Engineer In Training	\$111.87
Senior Designer	\$147.26
CADD Technician, III	\$132.59
CADD Technician, II	\$102.36
Project Site Representative	\$94.94
Secretary	\$75.48

REIMBURSABLE EXPENSES

Expenses incurred on behalf of the project such as printing/reproduction, delivery charges, ~~application, advertising costs, and recording fees~~ will be billed at cost plus 10% with a total cost not to exceed \$200 without prior written approval from the City.

EXHIBIT C
SCHEDULE

League City, Texas

LEAGUE CITY PARKWAY WEST BP& WELL (1,500 GPM)

The Professional shall complete the following activities and deliverables identified in Exhibit D – SCOPE OF WORK and PROJECT CONSTRUCTION COSTS in accordance with the schedule as follows:

<u>Deliverables</u>	<u>Cost (combined)</u>	<u>Completion Date</u>
Preliminary Design	\$93,000.00	180 Days
Topographic Survey	\$50,216.00	(45 Days)
Geotechnical Investigation	\$17,820.00	(42 Days)
Final Design (incl. SWPPP dwgs)	\$190,000.00	130 Days
Contract Bid Phase	\$20,576.00	Post Design Phase
Construction Administration Phase Field Review During Construction Prepare Record Drawings	\$62,000.00	During Construction
Testing	\$23,600.00	During Construction
Sanitary Control Easement (3 for well)	\$6,788.00	
Reimbursable Expenses	\$1,000.00	

EXHIBIT D
SCOPE OF WORK &
PROJECT CONSTRUCTION COSTS

League City, Texas

LEAGUE CITY PARKWAY WEST BP & WELL (1,500 GPM)

SCOPE OF WORK

The purpose of this project is to design improvements to the League City Parkway West BP & Well including:

1. 1,500 gpm groundwater well.
2. 1 MG ground storage tank.
3. Control and booster pump building.
4. Booster pumps (4 @ 100HP)
5. Yard piping and valves
6. Chemical feed systems
7. Standby generator and containment.
8. Electrical and instrumentation.
9. SCADA system.
10. Site storm drainage system
11. 12-inch water line (approx. 2,100 linear feet)
12. Site paving
13. Access road
14. Fencing
15. Miscellaneous site improvements

II. BASIC SERVICES

- A. Design facilities and components for the proposed League City Parkway West BP & Well.
1. Provide design and submit to City.
 2. Incorporate City comments and prepare final drawings and specifications.

III. ADDITIONAL SERVICES

- A. The topographic survey:
1. Topographic Survey of the entire 16 acres

See attached proposal from Landtech, Inc., dated March 21, 2019
- B. Survey services for acquisition of right-of-way and/or additional easement include the following:
1. Sanitary Sewer Easement

See attached proposal from Landtech, Inc., dated March 21, 2019

EXHIBIT D
SCOPE OF WORK &
PROJECT CONSTRUCTION COSTS

League City, Texas

LEAGUE CITY PARKWAY WEST BP & WELL (1,500 GPM)

- C. Provide a geotechnical report:
1. See attached proposal from Cibor Geoconsultants, dated April 16, 2019
- D. Perform a Phase I Environmental Site Assessment:
1. Not Applicable.
- E. Provide a Traffic Control Plan:
1. Not Applicable.
- F. Provide a Storm Water Pollution Prevention Plan:
1. Provide site and access road perimeter storm water pollution prevention drawing(s) and details for the Water Plant site.
- G. Provide limited Field Review of Construction.
1. Provide a qualified individual to review the progress of construction on a limited basis.
- H. Prepare Record Drawings.
1. Obtain the Contractor's as-built drawings and Inspector's field drawings and transfer field modifications to the record drawings.

APPROACH

The proposed scope of services for the improvements will be accomplished in the following phases:

- Preliminary Design Phase
- Final Design Phase
- Contract Bid Phase
- Construction Administration Phase

Each phase is described in the following paragraphs:

EXHIBIT D
SCOPE OF WORK &
PROJECT CONSTRUCTION COSTS

League City, Texas

LEAGUE CITY PARKWAY WEST BP & WELL (1,500 GPM)

PRELIMINARY DESIGN PHASE

1. Attend a kick off meeting with key staff of League City.
2. Visit site to discuss plant siting. Provide options for plant siting.
3. Recommend components and initial configuration of the plant.
4. Coordinate with utility companies. Confirm available electrical power to support proposed electrical loads.
5. Prepare initial hydrogeological analysis/well production.
6. Prepare well pollution hazard study.
7. Prepare preliminary (30%) design drawings.
8. Prepare 30% estimate of probable cost.

FINAL DESIGN PHASE

1. Develop 60% design drawings and technical specifications.
2. Prepare and submit Harris-Galveston County Subsidence District new well permit application.
3. Submit one (1) full size, two (2) half size, one (1) copy of the technical specifications and electronic copy of the 60% complete construction documents to City for review.
4. Incorporate City's comments on 60% submittal and complete the construction drawings to 90% complete level.
5. Submit one (1) full size, two (2) half size, two (2) copies of the technical specifications and electronic copy of the 90% complete construction documents to City for review.
6. Prepare 60%, 90% and final opinion of probable cost.
7. Incorporate City's 90% comments and issue final Contract Documents.
8. Submit final plans, technical specifications, and required forms to the TCEQ per their requirements for approval.

CONTRACT BID PHASE

1. Post all bid documents and information to CIVCAST.
2. Provide two (2) sets of "ISSUED FOR BID" documents and electronic copy to city.
3. Attend pre-bid conference and prepare minutes.
4. Prepare addendum and submit to the City for distribution.
5. Evaluate the Bids received, prepare a Bid Tabulation, and submit a recommendation to the City on the award of the Contract.

CONSTRUCTION ADMINISTRATIVE PHASE

1. Prepare formal Contract Documents for City to issue to Contractor.
2. Make two (2) site visits per month during the construction of the improvements and report observations to the City. Based on a twelve (12) month construction duration.
3. Review submittals and requests for information.
4. Provide limited field review of construction (6 hours per month based on a twelve month construction duration).

EXHIBIT D
SCOPE OF WORK &
PROJECT CONSTRUCTION COSTS

League City, Texas

LEAGUE CITY PARKWAY WEST BP & WELL (1,500 GPM)

5. Review monthly and final pay estimates.
6. Perform a Substantially Complete Walk Through with the City and the Contractor and prepare punch list.
7. Perform a Final Walk Through with City and the Contractor and prepare punch list.
8. Submit Record Drawings based on the Contractor's "as-built" drawings.
9. Submit well completion data to TCEQ for approval.

EXCLUSIONS

1. Detention will be addressed during the design of the overall park (by others).

EXHIBIT D
SCOPE OF WORK &
PROJECT CONSTRUCTION COSTS

League City, Texas

LEAGUE CITY PARKWAY WEST BP & WELL (1,500 GPM)

PRELIMINARY OPINION OF PROBABLE CONSTRUCTION COSTS

SEE ATTACHED SPREADSHEET

League City Parkway West BP & Well
City of League City
Estimate of Probable Cost for the Engineering Proposal

Description	Unit	Quantity	Unit Price	Total
Mobilization/Insurance/Bonds	L.S.	1	\$140,325.00	\$140,325.00
Site Grading	L.S.	1	\$3,500.00	\$3,500.00
Storm Drainage System	L.S.	1	\$15,000.00	\$15,000.00
12" Water Line	L.F.	2100	\$55.00	\$115,500.00
12" T.S.&V	Ea.	1	\$5,500.00	\$5,500.00
Site Paving	L.S.	1	\$50,000.00	\$50,000.00
Access Road (all weather gravel)	L.S.	1	\$50,000.00	\$50,000.00
Booster Pumps (4@100HP)	L.S.	1	\$220,000.00	\$220,000.00
Piping & Valves (incl coatings)	L.S.	1	\$300,000.00	\$300,000.00
Water Well (1,500 GPM)	L.S.	1	\$1,300,000.00	\$1,300,000.00
Sound wall for Well Construction	L.S.	1	\$100,000.00	\$100,000.00
Control and Booster Pump Building (3200 SF, incl. painting)	L.S.	1	\$320,000.00	\$320,000.00
Generator Containment	L.S.	1	\$5,000.00	\$5,000.00
1 M GST Foundation	L.S.	1	\$55,000.00	\$55,000.00
1 M GST incl coatings	L.S.	1	\$750,000.00	\$750,000.00
GST Mixers	L.S.	1	\$175,000.00	\$175,000.00
Electrical				
MCC and ATS	L.S.	1	\$375,000.00	\$375,000.00
Conduits, Conductors etc	L.S.	1	\$190,000.00	\$190,000.00
Generator	L.S.	1	\$375,000.00	\$375,000.00
New Service Drop	L.S.	1	\$40,000.00	\$40,000.00
Autosensory Panel	L.S.	1	\$70,000.00	\$70,000.00
Building Lighting	L.S.	1	\$15,000.00	\$15,000.00
DFS SCADA System	L.S.	1	\$75,000.00	\$75,000.00
Chemical Feed Systems	L.S.	1	\$35,000.00	\$35,000.00
SWPPP Source Controls	L.S.	1	\$5,000.00	\$5,000.00
Fencing & Gate	L.F.	1200	\$25.00	\$30,000.00
Site Restoration incl Regrading & Seeding	L.S.	1	\$3,000.00	\$3,000.00
Subtotal				\$4,817,825.00
Extra Unit Price Items				
				\$0.00
				\$0.00
				\$0.00
Subtotal for Extra Unit Items				\$0.00
Subtotal =				\$4,817,825.00
Contingencies (10%) =				\$481,782.50
Total				\$5,299,607.50

March 21, 2019

Mr. Erik D. Miller, P.E.
Sander Engineering Corp.
10555 Richmond Ave., Suite 100
Houston Texas, 77042

RE: City of League City, TX – Proposed League City Parkway Water Plant

Dear Mr. Miller:

It is my pleasure to submit the following proposal for providing professional surveying service for the above referenced project. Based on your email, the scope of work and associated fees will be as follows:

1. Topographic surveying and mapping of the entire 16 acre tract as shown in attached Survey Limits exhibit. Survey control will be based on ties to City of League City control and shown on map. Extend limits of survey across League City Parkway to 20 feet beyond the far right of way line. Extend limits across ditch on southeast side and beyond so as to include the first electrical transmission tower line running parallel to ditch. Ground elevations will be surveyed at approximate 100-foot grid spacing and at all grade breaks. Survey will show existing easements or rights of way that are of record or apparent from visible indications. One Call will be contacted to mark utilities within survey limits. Research of public and private utilities will be provided. Utilities will be surveyed and mapped per visible indications and best available evidence (probing or excavation not included). Manhole and inlet pipe inverts will be surveyed where accessible. Mapping services include plan view map of survey with contours and spot elevations, TIN and XML file, as well as a profile strip map of League City Parkway including utilities, using a mapping scale of 1"=20' horizontal and 1"=2' vertical. Fee for this task not to exceed \$26,824.00.
2. Boundary survey of the 16 acre tract:
 - a. Map of survey. Includes staking. Fee for this task not to exceed \$10,275.00.
 - b. Metes and bounds description. Fee for this task not to exceed \$ 897.00.
3. Surveys for a proposed 150 ft. radius sanitary sewer easement (location to be determined once the well is located). A metes and bounds description will be provided for each ownership affected. An overall map of easement survey will be provided showing the easement as it affects all ownerships. Fee for this task will be based on how many separate ownerships are affected and in total will not exceed \$2,057.00 times the number of affected ownerships. Staking of this easement is not included.

4. Remobilization for survey crew to pick up boring locations (probably two boring locations). Said location coordinates and associated ground elevations will be provided in a spreadsheet format and added to the topographic survey map. Fee for this task not to exceed \$965.00.
5. Preparation of access easement (1) and water line easement (1). A metes and bounds description for each easement, and a survey map showing both easements, will be provided. Services also include staking of the easement locations in the field. Fee for this task not to exceed \$4,233.50.
6. Boundary survey of a proposed 2 acre tract which will come out of the 16 acre tract for water plant purposes:
 - a. Map of survey. Includes staking. Fee for this task not to exceed \$1,949.50.
 - b. Metes and bounds description. Fee for this task not to exceed \$507.00.

The total fee for the above described services will be based on our hourly rates with total not to exceed \$47,708.00, based on one affected ownership in Task 3 above, with an additional fee not to exceed \$2,057.00 for each additional affected ownership. Please see attached spreadsheet for a breakdown of each task by fee and units. Construction surveying services are not included.

Thank you for the opportunity to submit this proposal. We look forward to working with you on this project.

Sincerely,

Landtech, Inc.



Dennis Chalaire, R.P.L.S.
Survey Manager

Attachments: Survey Limits Exhibit
Spreadsheet

672_WT15 Site.docx

LANDTECH, INC.

Proposal to Provide Professional Surveying Services
to Sander Engineering Corp
for Proposed League City Parkway Water Plant - City of League City, TX
Topographic and Boundary Surveying & Mapping
Manhours and Reimbursables Cost Estimate Basis
3/21/2019

See also Letter of Proposal and Survey Limits Exhibit. Construction surveying services are not included.

TASK - Landtech, Inc.	Sr. PM/RPLS	PM/RPLS	Survey Technician	CADD Technician	2-Man Crew	GPS Receiver	Mileage	HOURS BY TASK	FEE BY TASK
	\$204.00	\$135.00	\$93.00	\$88.00	\$155.00	\$225.00	\$0.58		
	per hour	per hour	per hour	per hour	per hour	per day	per mile		
1. Topographic surveying and mapping of the entire 16 acre tract as shown in attached Survey Limits exhibit. Survey control will be based on ties to City of League City control and shown on map. Extend limits of survey across League City Parkway to 20 feet beyond the far right of way line. Extend limits across ditch on southeast side and beyond so as to include the first electrical transmission tower line running parallel to ditch. Ground elevations will be surveyed at approximate 100-foot grid spacing and at all grade breaks. Survey will show existing easements or rights of way that are of record or apparent from visible indications. One Call will be contacted to mark utilities within survey limits. Research of public and private utilities will be provided. Utilities will be surveyed and mapped per visible indications and best available evidence (probing or excavation not included). Manhole and inlet pipe inverts will be surveyed where accessible. Mapping services include plan view map of survey with contours and spot elevations, TIN and XML file, as well as a profile strip map of League City Parkway including utilities, using a mapping scale of 1"=20' horizontal and 1"=2' vertical.	5	12	40	80	72	8	800	209	\$ 26,824.00
2. Boundary survey of the 16 acre tract:									
a. Map of boundary survey. Includes staking.	3	9	19	24	24	3	300	79	\$ 10,275.00
b. Metes and bounds description	1	1	6	0	0	0	0	8	\$ 897.00
3. Surveys for a proposed 150 ft. radius sanitary sewer easement (location to be determined once the well is located). A metes and bounds description will be provided for each ownership affected. An overall map of easement survey will be provided showing the easement as it affects all ownerships. Fee for this task as shown here is based on one affected ownership. Final fee actually charged will be based on how many ownerships are affected and in total will not exceed fee shown here times the number of affected ownerships. Staking of this easement is not included.	1	3	8	8	0	0	0	20	\$ 2,057.00
4. Remobilization for survey crew to pick up boring locations (probably two boring locations). Said location coordinates and associated ground elevations will be provided in a spreadsheet format and added to the topographic survey map.	0	1	1	1	4	0	50	7	\$ 965.00
5. Preparation of access easement (1) and water line easement (1). A metes and bounds description for each easement, and a survey map showing both easements, will be provided. Services also include staking of the easement locations in the field.	2	4	12	16	4	0.5	50	38	\$ 4,233.50
6. Boundary survey of a proposed 2 acre tract which will come out of the 16 acre tract for water plant purposes									
a. Map of boundary survey. Includes staking.	1	2	2	6	4	0.5	50	15	\$ 1,949.50
b. Metes and bounds description	0	1	4	0	0	0	0	5	\$ 507.00
Total Hours by Labor Category	13	33	92	135	108	12	1250	381	
Total Fee by Labor Category	\$2,652.00	\$4,455.00	\$8,556.00	\$11,880.00	\$16,740.00	\$2,700.00	\$725.00		\$ 47,708.00

League City Parkway Water Plant

Survey Limits Exhibit



16 Acre Site

Extended
Survey
Limits
11 Ac.

Google Earth

© 2018 Google

1000 ft

Proposal No. P19-08

April 16, 2019

Sander Engineering Corporation

2901 Wilcrest, Suite 550

Houston, Texas 77042

Attention: Mr. Erik D. Miller, P.E.
Vice President/Partner

Proposal for Geotechnical Investigation and Field Observations

League City Water Plant

City of League City, Texas

Introduction

Cibor Geoconsultants is pleased to present this proposal to undertake a geotechnical investigation to assist Sander Engineering Corporation (Sander) in the design and construction of the proposed Water Plant for the City of League City. This proposal was requested by Mr. Erik Miller of Sander in an e-mail dated April 1, 2019. Information regarding this project was initially transmitted in an e-mail from Mr. Miller dated March 29, 2019; additional details were provided during a telephone conversation on April 1, 2019.

The proposed Water Plant will be situated within a 16-acre site bordered by League City Parkway to the northeast, Scarborough Lane to the west, and Magnolia Creek to the south. It will contain a 1 MG water storage tank, a 3200 square foot pre-engineered building, 2100 lineal feet of piping, and associated appurtenant structures. Concrete and/or asphaltic concrete parking and drive areas will be constructed within the plant. A roughly 2000-foot long, concrete paved access road into the plant will also be constructed. The water storage tank is expected to be between 35 and 50 feet in height, with a diameter between 60 and 70 feet. We expect that the tank shell will be supported on a conventional reinforced concrete ringwall foundation. We estimate that the bearing pressure of the tank will be approximately 3,000 psf. Details regarding plant layout and configuration are still to be finalized.

Purposes and Scope of Services

The purpose of our geotechnical study will be develop and provide recommendations to assist Sander in the design and construction of the geotechnical aspects of the water plant. We will accomplish this purpose by performing the following scope of geotechnical engineering services.

- Explore and evaluate the subsurface soil and groundwater conditions within the anticipated footprint of the storage tank and pre-engineered building.

- Perform geotechnical laboratory testing on collected soil samples to evaluate the undrained and consolidation properties of the subsurface soils encountered during the field campaign.
- Evaluate and develop recommendations for tank and building foundations, along with pavements and buried pipelines.
- Submit our findings, results of analyses, and engineering recommendations in a geotechnical report.

The following sections of this proposal further define our scope of services for the completion of this geotechnical engineering study.

Field Exploration. We propose to explore and evaluate the subsurface conditions within the footprint of the storage tank by drilling two soil borings. The borings will be drilled to depths of 40 and 60 feet. We will also drill one, 30-foot deep boring within the anticipated footprint of the pre-engineered building. Two, 10-foot deep borings will be drilled along the proposed access road alignment. Based on information provided by Sander and our review of imagery of the site, the soil boring locations should be accessible using typical truck-mounted drilling equipment.

Soil samples will typically be obtained in each boring at 2-foot intervals to a depth of 16 feet, and at 5-foot intervals below a depth of 16 feet, to the completion depth of the boring. Cohesive soil samples will be collected by hydraulically advancing a thin-walled tube in general accordance with ASTM D1587. Granular soil samples will be collected by performing Standard Penetration Tests in general accordance with ASTM D1586. We will estimate the shear strength of encountered cohesive soils using a hand-held penetrometer or Torvane. SPT N-values will be recorded for Standard Penetration Tests.

The boring locations will be sited using a hand-held GPS device. Boring elevations will be estimated from Google Earth.

We will estimate the depth-to-water at the site through short-term measurements in each open borehole; a 24-hour reading will also be obtained in one of the boreholes by installing a temporary piezometer.

Upon completion of drilling activities, we will backfill the open boreholes with a combination of onsite soil cuttings and Holeplug.

Field exploration activities will be performed by a subcontracted field exploration firm and led by CIBOR Geoconsultants personnel. We will log the geotechnical soil borings and collect the soil samples for additional geotechnical laboratory testing. We will contact Sander personnel if we encounter unusual or unexpected conditions at the project site.

Geotechnical Laboratory Testing. The laboratory testing will be aimed at classifying the soils encountered in the borings, estimating their undrained shear strengths, and assessing their

consolidation characteristics. We will also evaluate the subgrade characteristics of the soils for use in pavement design. We anticipate performing the following tests:

- Soil Classification Tests
 - Visual classification, natural moisture content, unit density, liquid and plastic limits (Atterberg Limits), percent passing the No. 200 sieve, grain size analyses
- Strength Tests
 - Pocket Penetrometer and/or Torvane
 - Unconfined and Unconsolidated-Undrained triaxial compression
- One-Dimensional Incremental Consolidation (1)
- California Bearing Ratio (CBR) and Moisture-Density Relationship (1 each)

Engineering Analysis and Reporting. The results of our field exploration and laboratory testing will be analyzed and used to develop our geotechnical engineering recommendations. Our recommendations will be presented in a geotechnical report. The geotechnical report will include the following items.

- Discussion of the field exploration, laboratory testing, and our observed subsurface soil and depth-to-water conditions. We will also include logs of our geotechnical soil borings, with descriptions of the soils encountered, measured depth-to-water, and the results of our field and laboratory testing.
- Discussion of the generalized subsurface conditions used for our engineering analyses.
- Results of a Phase I geologic fault study.
- Recommendations for the use of a concrete ringwall foundation for the proposed water storage tank, if appropriate. Our recommendations will include net allowable bearing pressure for the reinforced concrete ringwall, factors of safety against bearing capacity failure, and recommended lateral earth pressure coefficients for backfill against the ringwall. We will also provide estimates of total and differential settlement within the footprint of the proposed tank based on soil index properties, consolidation testing, and local experience. Hydrotest recommendations will be provided for the tank following its construction.
- Recommendations for suitable foundation type(s) for the pre-engineered building, including allowable bearing pressure, passive resistance, and estimated settlement.
- Recommendations for support of a slab-on-grade.
- Recommendations related to installation of buried pipelines including bedding support and backfill requirements.
- Construction considerations including: subgrade preparation, OSHA requirements for shallow open-cut excavations, temporary dewatering, fill selection and placement, installation of

shallow ringwall and spread footing foundations, installation of drilled-and-underreamed foundations (if appropriate), and construction monitoring.

- Flexible and rigid pavement structural sections for access road and plant drive and parking areas.
- Our findings, conclusions, and recommendations will be compiled in an engineering report. Our report will be delivered electronically in a pdf-formatted document.

Field Observations during Construction of Foundation Elements. We will be onsite during installation of foundation elements for the ground-supported water storage tank and the pre-engineered building to verify that:

- the excavations have extended to design elevations;
- the excavations have been made to the dimensions indicated on the plans; and
- the soils exposed at the bottom of the excavations are consistent with the soils recommended for support of the foundation elements in our geotechnical report.

The field observations will be made by our Field Geologist. We will document the observations, along with our recommendations, in a Field Report submitted to Sander Engineering.

Special Conditions and Assumptions

Several assumptions have been made in developing this proposal and, if not valid, could constitute a change in scope. Our assumptions are provided in the following bulleted list.

- The site will be accessible with truck-mounted drilling equipment.
- Access and right-of-entry for our field equipment and personnel will be provided by the Client/Owner prior to mobilization of field equipment or personnel.
- The soils encountered will be free of any hazardous or contaminated material. If encountered, our field services will cease until the Client/Owner provides us with the results of an environmental assessment of the hazardous or contaminated materials.
- We will locate the borings onsite using a hand-held GPS device. We anticipate that the locations will be surveyed by Sander following completion of our field activities.
- We will contact Texas 811 to locate public utilities near the boring locations. The Client/Owner will be responsible for locating private utilities near the boring locations.
- The boring locations will be free of any underground and overhead obstructions, including utility, telecommunication, and transmission lines, buried rubble, existing foundations, etc.
- Excess soil cuttings and drilling fluids will be at an onsite location designated by the Client/Owner.

- Environmental assessments and analyses and compliance with State and Federal regulatory requirements will not be performed as part of our services.
- Our geologic fault study will be limited to Phase I services.

Schedule

We have estimated that the total completion time of our geotechnical services will be approximately 5 to 6 weeks. A breakdown of the estimated schedule is provided below.

- Geotechnical field exploration services will begin approximately 1 week after receipt of authorization to proceed. We have estimated approximately 2 days to complete the field exploration program.
- Standard geotechnical laboratory testing will be completed approximately 1-1/2 weeks after completion of the field services. The 1-D incremental consolidation test will be completed approximately 2 to 3 weeks after completion of the field services.
- We will issue our geotechnical engineering report approximately 2 weeks after completion of all laboratory testing. This will be approximately 5 to 6 weeks after receipt of written authorization to proceed. Advance final recommendations for major foundation elements can be presented during the course of the study if requested.

Cost and Terms

Our services will be performed in accordance with the attached *General Conditions for Geotechnical Engineering Services*. If alternate terms are to govern this work, we will work with Sander to reach an agreement on terms.

We propose to perform services related to the *Geotechnical Investigation*, as described in this proposal, for a lump sum fee of **\$16,200**. Field services in connection with observation of foundation element excavations will be performed on a time-and-material basis in accordance with the following rate structure:

- Field Geologist @ \$90/hr
- Project Manager @ \$155/hr
- Vehicle @ \$10/hr

Based on our experience with similar projects, we suggest a budget ranging between \$3800 and \$5700 be established for the field observation services. The range in the budget represents between 4 and 6 site visits. It allows for the possibility that the excavations may not be properly prepared, or may not have exposed competent subgrade, upon the initial site visit.

If this proposal is agreeable, please indicate your acceptance by returning one signed copy of this document for our records.

Closing

Cibor Geoconsultants appreciates the opportunity to submit our proposal to Sander Engineering Corporation. We look forward to working with you on this project. If you need further information or if you have any questions, please do not hesitate to call us.

Sincerely,

Cibor, Inc.

TBPE Firm Registration No. F-15616



Joseph M. Cibor, P.E.

Principal

Attachments:

General Terms and Conditions for Geotechnical Consulting Services

Copies Submitted

Electronic pdf via Email to Mr. Erik D. Miller, P.E. at EMiller@sandereng.com

CLIENT AUTHORIZATION:

Name

Signature

Title

Date

CIBOR, INC.
GENERAL TERMS AND CONDITIONS FOR
GEOTECHNICAL CONSULTING SERVICES

1. SCOPE OF SERVICES

Cibor, Inc. ("Consultant") will perform the Services set forth in the Scope of Services agreed to by Consultant and Client; provided however, Consultant's scope of work shall not include the investigation, detection, or any design which is related to the presence of any hazardous materials or contaminated soil or groundwater. Further, Consultant's scope of work shall not include the investigation, detection, or any design which is related to the presence of any Biological Pollutants. The term "Biological Pollutants" includes, but is not limited to, mold, fungi, spores, bacteria, and viruses, and the byproducts of any such biological organisms. Client agrees that Consultant will have no liability for any claim regarding bodily injury or property damage alleged, arising from, or caused directly or indirectly by the presence of or exposure to any Biological Pollutants. In addition, Client will defend, indemnify, and hold harmless Consultant from any third party claim for damages alleged to arise from or be caused by the presence of or exposure to any Biological Pollutants. If Client requests in writing prior to acceptance of Scope of Services, Consultant will negotiate a greater limitation amount, and remove Client's responsibilities, in exchange for an increase in fee to develop an expanded scope of work to provide biological pollutant protection.

2. PAYMENTS TO CONSULTANT

Consultant will perform all Services set forth in the Scope of Services and the charges set forth therein. Said charges will not include any additional services required. All invoices are due upon receipt. All amounts unpaid 30 days after the invoice date will include a late payment charge from the date of the invoice, at the rate of 10% per annum or the highest rate permitted by law.

3. STANDARD OF PERFORMANCE; DISCLAIMER OF WARRANTIES

Consultant offers different levels of geotechnical engineering Services to suit the desires and needs of different clients. Although the possibility of error can never be eliminated, more detailed and extensive Services yield more information and reduce the probability of error, but at increased cost. Client must determine the level of Services adequate for its purposes. Client has reviewed the Scope of Services and has determined that it does not need or want a greater level of Services than that being provided. Subject to the limitations inherent in the agreed Scope of Services as to the degree of care, the amount of time and expenses to be incurred, and subject to any other limitations contained in these Terms and Conditions, Consultant may perform its Services consistent with that level of care and skill ordinarily exercised by other professional Consultants practicing in the same locale and under similar circumstances at the time the Services are performed. No other warranty, express or implied, is included or intended by these Terms and Conditions.

4. CLIENT'S RESPONSIBILITIES

In addition to payment for the Services performed under this Agreement, Client agrees to: (a) assist and cooperate with Consultant in any manner necessary and within its ability to facilitate Consultant's performance under the Scope of Services; (b) provide access to and/or obtain permission for Consultant to enter upon all property, whether or not owned by Client, as required to perform and complete the Services and in connection thereto, Consultant will operate with reasonable care to minimize damage to the Project Site(s); however, Client recognizes that the operations and the use of investigative equipment may unavoidably alter conditions or affect the environment at the existing Project Site(s) and; (c) supply Consultant with all information and documents in Client's possession or knowledge which are relevant to the Services. The cost of repairing any damage at the Project Site(s) will be borne by Client and is not included in the fee unless otherwise agreed to by both parties stated in writing. Client warrants the accuracy of any information supplied by it to Consultant, and acknowledges that Consultant is entitled to rely upon such information without verifying its accuracy. Prior to the commencement of any Services in connection with a specific property, Client will notify Consultant of any known potential or possible health or safety hazard existing on or near the Project Site(s), with particular reference to hazardous materials or conditions.

5. ALLOCATION OF RISK

(a) The total cumulative liability of Consultant, its subcontractor's, and all of their respective shareholders, directors, officers, employees and agents (collectively "Consultant Entities"), to Client arising from Services under this Agreement, including attorney's fees due under this Agreement, will not exceed the gross compensation received by Consultant for the applicable Services or \$50,000, whichever is less; provided, however, that such liability is further limited as described below. This limitation applies to all lawsuits, claims, or actions that allege errors or omissions in Consultant's Services, whether alleged to arise in tort, contract, warranty, or other legal theory.

(b) Client shall protect, defend, indemnify and hold harmless Consultant from and against any claims, damages, losses, and costs arising from this Agreement, any third party claims or the project ("Claims"), including, but not limited to, reasonable attorney's fees and litigation costs, regardless of the negligence of Consultant and its employees, affiliated corporations, officers, and sub-tier parties in connection with the project.

(c) Neither Client nor Consultant will be liable to the other for any special, consequential, incidental or penal losses or damages including but not limited to losses, damages or claims related to the unavailability of property or facilities, shutdowns or service interruptions, loss of use, profits, revenue, or inventory, or for use charges, cost of capital, or claims of the other party and/or its customers.

6. OWNERSHIP AND USE OF DOCUMENTS

(a) All documents provided by Client will remain the property of Client. Consultant will return all such documents to Client upon request, but may retain file copies of such documents.

(b) Unless otherwise agreed in writing, all documents and information prepared by Consultant or obtained by Consultant from any third party in connection with the performance of Services, including, but not limited to, Consultant's reports, boring logs, maps, field data, field notes, drawings and specifications, laboratory test data and other similar documents (collectively "Documents") are the property of Consultant. Consultant has the right, in its sole discretion, to dispose of or retain the Documents.

7. RELATIONSHIP OF THE PARTIES

Consultant will perform Services under this Agreement as an independent Consultant.

8. TERMINATION OF THE CONTRACT

Client and Consultant may terminate services at any time upon 10 days written notice. In the event of termination, Client agrees to fully compensate Consultant for services performed including reimbursable expenses to the termination date, as well as demobilization expenses. Consultant will terminate services without waiving any claims or incurring any liability.

9. DISPUTES

This Agreement will be construed in accordance with and governed by the laws of the State of Texas and venue shall be in Harris County, Texas.