



October 16, 2023  
23-0319

Wesley Brandon, P.E.  
Town of Little Elm  
wbrandon@littleelm.org

**Subject: Construction Materials Testing Services  
Cottonwood Park Phase 1  
Little Elm, Texas**

Dear Ms. Brandon:

Geotex Engineering is pleased to submit this proposal for construction materials testing for the above-referenced project. We understand that the project entails the improvements to the existing Cottonwood Park located at 900 Lobo Lane in Little Elm, Texas.

Based on our understanding that we have been selected due to our qualifications, we have prepared a budget estimate for your use.

This budget estimate is based on landscape, and civil permit set plans dated August 27, 2021; and geotechnical report by Alliance dated July 11, 2022.

#### **PROJECT INFORMATION**

Based on our review of the project plans and specifications, we understand that the project will consist of the following:

- ◆ Building (approximately 27 Slabs):
  - ◆ 7 slabs with Moisture conditioned subgrade (5-7 feet with a 2-foot select fill cap)
  - ◆ Slabs approximately 800 square feet, each
  - ◆ Slab-on-grade floor system with grade beams
- ◆ Paving and sidewalks:
  - ◆ 8-inch re-compacted sidewalk subgrade
  - ◆ 8-inch re-compacted paving subgrade
  - ◆ 8-inch Portland cement concrete paving
- ◆ Miscellaneous:
  - ◆ Utility trench backfill

#### **SCOPE OF SERVICES**

The following scope of services is based on our review of the project documents and is limited to providing testing and/or observations for the previously mentioned construction. ***We do request that your construction representative provide us with a 24-hour notice for scheduling purposes. Same-day***

**call-ins will be billed at premium rates.** As such, we agree to provide the appropriate personnel to perform the below construction materials services.

#### Earthwork

- Obtain and perform laboratory moisture/density relations (ASTM D698) and soil classification tests (liquid limit, plastic limit, and percent finer than no. 200 sieve analysis) for each soil type
- Perform in-place moisture/density tests at the proposed rate of 1/2,500 square feet for the building pad, 1/5,000 square feet or 1/300 linear feet for paving and sidewalk areas, and 1/100 linear feet for trench utility backfill and grade beam backfill per lift, with a minimum of 3 tests per lift

#### Reinforcing Steel

- Perform reinforcing steel observation which will include:
  - verify the number and size of bars
  - verify clearance between bars and spacing
  - verify securing, tying, and chairing of bars

#### Cast-In-Place Concrete

- Perform testing during concrete placements, which will include:
  - perform ambient and concrete temperature determinations
  - perform entrained air content determination
  - perform slump determination
- Cast concrete test cylinders at the proposed rate of 5/100 cubic yards of concrete placed for pavement and 5/100 cubic yards for building concrete, or a fraction thereof placed per day
- Compressive strength determination of concrete test cylinders with one tested at 7 days, three tested at 28 days, and one held in reserve

#### Masonry

- Perform testing during masonry operations which will include:
  - Ambient, mortar, and grout temperature determinations
- Cast grout prisms at the proposed rate of 4 per set shall be made during the first day of masonry work and for every 5,000 SF of wall (or less) thereafter
- Compressive strength determination of grout prisms with one tested at 7 days and three tested at 28 days

#### **Notes and Qualifications:**

Preparation of a compliance letter or other tasks and services that will require Professional Engineering (PE) hours will be billed at the PE's rate of \$185/hour.

#### **COMPENSATION**

While testing is dependent on the construction sequence, contractor performance and efficiency, weather conditions, and the actual testing performed, we suggest an **estimated budget of \$108,196.00**. The invoicing for this project will use the attached Fee Schedule **and the actual quantity of work performed**. The estimated budget will not be exceeded without prior approval. Services provided by

Geotex Engineering will be consistent with the engineering standards prevailing at the time and in the area that the work is performed; no other warranty, express or implied, is intended. Estimates are valid for 60 days. Any additional testing that the client requests will be billed

A Letter of Agreement for your execution will be forwarded to your office upon your approval of this budget estimate and should you be awarded the contract for this project.

We appreciate the opportunity to provide you with our services. Please call if you have any questions or wish to discuss the budget estimate.

Sincerely,  
Geotex Engineering, LLC



Cameron Pannell  
Project Manager

Attachments: Budget Estimate

## Budget Estimate for Construction Materials

Testing & Observation Services

### Cottonwood Park Phase 1

Little Elm, Texas

**23-0319**

Item	Quantity	Unit	Unit Rate	Total
<b>Earthwork Observation &amp; Testing Paving &amp; Utilities</b>				
Moisture Density Relations (ASTM D698 - Method A or B)	6	each	\$185.00	\$1,110.00
Moisture Density Relations (ASTM D1557- Method A or B)	1	each	\$225.00	\$225.00
Atterberg Limits (ASTM 4318)	7	each	\$85.00	\$595.00
Minus 200 Sieve Analysis	7	each	\$45.00	\$315.00
In-Place Moisture-Density Tests (Paving) Min 3 Per Trip	195	each	\$15.00	\$2,925.00
In-Place Moisture-Density Tests (Utilities) Min 3 Per Trip	45	each	\$15.00	\$675.00
Certified Engineering Soils Technician - Paving (Min. 4 hrs. per trip)	260	hour	\$60.00	\$15,600.00
Certified Engineering Soils Technician - Utilities (Min. 4 hrs. per trip)	40	hour	\$60.00	\$2,400.00
Trip Charge	75	trip	\$50.00	\$3,750.00
Project Manager	24	hour	\$115.00	\$2,760.00
Project Administration	n/a	%	10	\$3,036.00
<b>Estimated Total for Earthwork Services for Paving &amp; Utilities:</b>				<b>\$33,391.00</b>

Item	Quantity	Unit	Unit Rate	Total
<b>Concrete Observation &amp; Testing - Paving</b>				
Concrete Test Cylinders (4 x 8 inch) (Includes: ambient & concrete temperatures, slump, air & unit weight)	335	each	\$20.00	\$6,700.00
Certified Engineering Concrete Technician (Min. 4 hrs. per trip) (Includes reinforcing observation & cylinder pick up)	255	hour	\$60.00	\$15,300.00
Certified Engineering Concrete Technician (Estimated overtime)	51	hour	\$90.00	\$4,590.00
Trip Charge	51	trip	\$50.00	\$2,550.00
Project Manager	26	hour	\$115.00	\$2,990.00
Project Administration	n/a	%	10	\$3,213.00
<b>Estimated Total for Concrete Services for Paving:</b>				<b>\$35,343.00</b>

Item	Quantity	Unit	Unit Rate	Total
<b>Earthwork Observation &amp; Testing Building Pad</b>				
In-Place Moisture-Density Tests, Min 3 per trip	120	each	\$15.00	\$1,800.00
Certified Engineering Soils Technician (Min. 4 hrs. per trip)	160	hour	\$60.00	\$9,600.00
Certified Engineering Soils Technician (Estimated overtime)	40	hour	\$90.00	\$3,600.00
Trip Charge	40	trip	\$50.00	\$2,000.00
Project Manager	15	hour	\$115.00	\$1,725.00
Project Administration	n/a	%	10	\$1,873.00
<b>Estimated Total for Earthwork Services:</b>				<b>\$20,598.00</b>

Item	Quantity	Unit	Unit Rate	Total
<b>Concrete Observation &amp; Testing Building</b>				
Concrete Test Cylinders (4 x 8 inch) (Includes: ambient & concrete temperatures, slump, air & unit weight)	105	each	\$20.00	\$2,100.00
Certified Engineering Concrete Technician (Min. 4 hrs. per trip) (Includes reinforcing observation & cylinder pick up)	116	hour	\$60.00	\$6,960.00
Trip Charge	32	trip	\$50.00	\$1,600.00
Project Manager	10	hour	\$115.00	\$1,150.00
Project Administration	n/a	%	10	\$1,181.00
<b>Estimated Total for Concrete Services:</b>				<b>\$12,991.00</b>

Item	Quantity	Unit	Unit Rate	Total
<b>Masonry Observation &amp; Testing</b>				
Mortar Cubes (6 per set)	3	each	\$25.00	\$75.00
Grout Prisms (4 per set)	3	each	\$35.00	\$105.00
Certified Engineering Technician (Min. 4 hrs. per trip) (Includes observation and masonry pickup)	30	hour	\$65.00	\$1,950.00
Trip Charge	9	trip	\$50.00	\$450.00
Project Manager	3	hour	\$115.00	\$345.00
Project Administration	n/a	%	10	\$293.00
<b>Estimated Total for Masonry Services:</b>				<b>\$3,218.00</b>

Item	Quantity	Unit	Unit Rate	Total
<b>Project Setup Fee</b>	1	each	\$250.00	\$250.00
<b>Allowance for Sr. Engineer</b>	13	hour	\$185.00	\$2,405.00
				<b>\$2,655.00</b>

<b>Estimated Total for Above Services: \$108,196.00</b>				
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<b>SCHEDULED ASSUMPTIONS AND NOTES</b>
<p>Sanitary Sewer Bury Depth assumed to be 4 feet maximum</p> <p>Grading for all paving and building areas to be cut</p> <p>No testing required on the stabilized decomposed granite sections</p> <p>Pavement placement will be completed in 18 trips at a rate of 300 cubic yards per pour</p> <p>Sidewalk placement will be completed in 16 trips at a rate of 60 cubic yards per pour</p> <p>No Visual structural steel inspections required</p> <p>Performance pavilion slab will be complete in 1 trip</p> <p>Restroom building slabs will be completed in 2 trips</p> <p>Lighthouse structure footing and elevated slabs will be completed in 6 trips</p> <p>Group Pavilion slabs will be completed in 2 trips</p> <p>The Boardwalk structure is not being built at this time</p> <p>Day Use Shelter slabs will be completed at a rate of 4 per trip</p> <p>Day Use Shelter slabs will not require moisture conditioning as outlined in section 5.6 of the Geotechnical Report</p>
<b>NOT INCLUDED IN REQUIREMENTS OR THE BUDGET</b>
<p>Tests in excess of above stated quantities or additional tests not listed</p> <p>Retesting of any failed tests / observation</p> <p>Temporary site curing facility</p> <p>Project compliance letter</p>
<p>The fees listed above for field and laboratory tests, include the equipment necessary to accomplish the task. Fees not listed above are available upon request. Estimates are valid for 60 days. Any additional testing that the client requests will be billed. There will be a 50% surcharge to the standard testing fees on all testing performed on rush orders. All services and personnel fees are subject to a minimum fee of four hours per trip for all scheduled inspections, site visits and for cancellations (on-site or in route) unless noted otherwise. Hourly rates quoted are portal to portal and apply to standard work days, Monday through Friday 7:00 am to 6:00 pm. Overtime rate of 1.5 times the quoted rate will be applied outside of the standard work hours, over 8 hours a day and on Saturday. Sundays and Holidays will be billed at 2 times the quoted rates. Fees listed above are per unit/hour, unless otherwise noted. Same-day call-ins to be billed at 1.5 times the hourly rate of the available personnel, up to and including the project manager's rate. Fees listed are for informational use only and are subject to change.</p>