



September 27, 2019

Mr. Anthony Talluto
City of League City
300 W Walker St.
League City, Texas 77573

Subject: **Cost Estimate for Materials Services
South Shore Blvd. @ FM 518 Storm Sewer Repair
League City, Texas
Terracon Cost Estimate Number P91191191**

Dear Mr. Talluto:

Terracon Consultants, Inc. (**Terracon**) is pleased to provide this Cost Estimate for Materials Services. We understand we have been selected based on our qualifications to provide materials testing services for the referenced Project. In this letter we have presented our understanding of the scope of the project, the proposed services, and the budget estimate.

A. PROJECT INFORMATION

The project consists of repairs to the existing sanitary sewer system, including, manhole, pavement, sloped pavement, and sidewalk.

Construction Plans prepared by ARKK Engineers, dated September 2019, were reviewed in preparation for this Cost Estimate and Scope of Services.

B. SCOPE OF SERVICES

Services will be provided when scheduled by the Contractor.

1. Earthwork

- Sample backfill materials. Prepare and test the samples for the Atterberg Limits and Moisture-Density Relationship.
- Perform field density tests using the nuclear method to determine the moisture content and percent compaction of the trench backfill and treated subgrade soils.
- Cast strength specimen for cement stabilized sand (CSS) and test for compressive strength at 48 hours.

2. Concrete

- Sample the fresh concrete for paving and perform required tests, including slump, air content, concrete temperature, and cast test specimens during placements.
- Perform compressive tests of concrete test cylinders cast in the field.

Please note: Terracon will require the approved concrete mix designs to provide these services.



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3. Project Management

- Attend construction meetings, if requested
- Review concrete mixes submitted to Terracon, if requested
- Coordinate field and laboratory testing,
- Communicate with Terracon field technicians, Contractor, and Owner's site representative,
- Review laboratory and field test reports,
- Review our budget and invoice.

Scheduling Retests:

It is the responsibility of your representative to schedule retests in a like manner to scheduling our original services. Terracon shall not be held responsible for retests not performed because of a failure to schedule our services or any subsequent damage caused because of a lack of retesting.

Additional Services:

Terracon will issue a short Supplement to the Agreement form, or Supplement Cost Estimate, that outlines the additional work to be performed and the associated fees. Please authorize us to begin this additional work by returning a signed copy of the Supplement.

Project Schedule:

Field testing services will be provided on a "call-out" basis when scheduled by your representative. A minimum of 24-hours' notice is required to schedule our services, although we will attempt to meet requests in a shorter time frame. To schedule our services please contact our dispatcher at (281) 557-2900. The dispatch hours are from 07:00 a.m. to 5:00 p.m. Messages left after business hours will be checked the following business day. Terracon will only provide testing when called by your representative. The extent of our observations and documentation will be limited to the items observed during the site visits. Terracon shall not be held responsible for tests not performed because of a failure to schedule our services or any subsequent damage caused because of a lack of testing.

C. COMPENSATION

Our estimated total budget to perform the testing is \$4,638, shown in the table below.

Please note that this is only a budget estimate and not a not-to-exceed price. Our fees will be based on the unit rates provided in the attached table. You will be invoiced on units used. Services not included in this Cost Estimate, which may be requested or provided throughout the job, will be billed at Terracon rates, available upon request. Overtime is defined as all hours more than eight per day, and all hours worked on weekends and holidays.

A 4-hour minimum charge will be applied to site visits other than sample or cylinder pickups. All labor, equipment and transportation charges are billed on a portal to portal basis from our office.

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These fees Do Not Include Retesting or Cancellations on site. Terracon will track costs associated with retests and cancellations and provide it to the City.

Budget Estimate				
South Shore Blvd@FM 518 Storm Sewer Repair				
Service	Quantity	Unit	Unit Rate	Estimate
1.0 Field (Earthwork, Utility Backfill, Concrete)				
Engineering Technician	40	hour	\$ 50.00	\$ 2,000.00
Engineering Technician, OT	4	hour	\$ 75.00	\$ 300.00
Nuclear Gauge	5	day	\$ 60.00	\$ 300.00
Vehicle Charge (including pick ups)	10	day	\$ 60.00	\$ 600.00
			sub-total	\$ 3,200.00
2.0 Laboratory				
Moisture Density Relationship	2	each	\$ 175.00	\$ 350.00
Atterberg Limits	1	each	\$ 65.00	\$ 65.00
Cylinder Tests (4 cyl/set)	16	each	\$ 18.00	\$ 288.00
Lime Determination	0	each	\$ 450.00	\$ -
Compressive Strength of CSS specimens(48-hr)	1	set	\$ 150.00	\$ 150.00
			sub-total	\$ 853.00
3.0 Project Management & Administration				
Administrative	3	hour	\$ 60.00	\$ 180.00
Project Manager	3	hour	\$ 135.00	\$ 405.00
			Total	\$ 4,638.00

D. SITE ACCESS AND SAFETY

Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the services and will execute any necessary site access agreement. Terracon will be responsible for supervision and site safety measures for its own employees and shall not be responsible for the supervision or health and safety precautions for any third parties, including Client's contractors, subcontractors, or other parties present at the site.

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E. TESTING AND OBSERVATION

Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Terracon will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive and are conducted to reduce – not eliminate – project risk. Client agrees to the level or amount of testing performed and the associated risk. Client is responsible (even if delegated to contractor) for notifying and scheduling Terracon so Terracon can perform these services. Terracon shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Terracon's performance of testing and observation services shall not relieve contractor in any way from its responsibility for defects discovered in its work or create a warranty or guarantee. Terracon will not supervise or direct the work performed by contractor or its subcontractors and is not responsible for their means and methods.

AUTHORIZATION:

Agreement for Services will be issued by the City of League City.

Thank you for your continued trust in Terracon. We look forward to working with you on this Project. Please call us at 281-557-2900 if you have any questions or comments regarding this document.

Sincerely,
Terracon Consultants, Inc.
(Registration No. F-3272)

A blue ink signature of Noosha P. Smith, consisting of stylized cursive letters.

Noosha P. Smith, P.E.
Regional Manager

A blue ink signature of Sean Barber, consisting of stylized cursive letters.

Sean Barber
Materials Department Manager