



City of Bastrop
P.O. Box 427
Bastrop, TX 78602

FNI PROJECT NO. BAS18658
CLIENT CONTRACT REFERENCE
DATE: 1/30/2023

Project Name: Final Design, Bid Phase, and Construction Phase Services for Simsboro Aquifer Water Treatment Plant, Well Field, and Transmission Facilities

Description of Services: Task Authorization #2 (Final Design, Bid Phase and Construction Phase Services) included coordination of an independent Materials Testing Laboratory as a Basic Service in Construction Phase Services. The actual Construction Materials Testing services were identified as a Supplemental Service that could be provided upon request by the City. Amendment #3 to TA#2 added Construction Materials Testing services for the work packages included in the CM@Risk's GMP#1. This Amendment #5 to TA#2 adds Construction Materials Testing services as a supplemental service for all remaining work packages for the project. Materials Testing shall be performed by Rock Engineering and Testing Laboratory (RETL) as a Subconsultant to FNI.

Amended Deliverables: Materials testing schedule and materials testing reports, delivered as completed.

Amended Schedule: No Change in Schedule

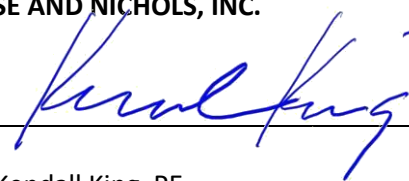
Compensation shall be amended as follows: Compensation for Materials Testing Services shall be on a Time and Materials basis (actual cost of materials testing as invoiced by RETL based on RETL's rate schedule attached to this Amendment #3, plus 5% FNI mark-up) up to a maximum amount of two hundred fifteen thousand seven hundred seventy five dollars (\$215.77500).

| | |
|---|----------------|
| Current Contract Amount: | \$4,900,225.00 |
| Amount of this Amendment: | \$215,775.00 |
| Revised Total Amount Authorized: | \$5,116,000.00 |

The above described services shall proceed upon execution of this amendment. All other provisions, terms and conditions of the Professional Services Agreement which are not expressly amended shall remain in full force and effect.

FREESE AND NICHOLS, INC.

City of Bastrop

BY: 
Kendall King, PE
Print Name

BY: _____

Print Name

TITLE: Vice President

TITLE: _____

DATE: 1/30/2023

DATE: _____



- GEOTECHNICAL ENGINEERING
- CONSTRUCTION MATERIALS ENGINEERING & TESTING
- SOILS • ASPHALT • CONCRETE

November 16, 2022

Freese and Nichols, Inc.
10431 Morado Circle Building 5, Suite 300
Austin, Texas 78759

Attn: Brent Millar
brent.millar@freese.com

**SUBJECT: PROPOSAL - CONSTRUCTION MATERIALS ENGINEERING SERVICES
PROPOSED BASTROP WATER TREATMENT PLANT GMP#2
PHELAN ROAD
BASTROP, TEXAS
RETL PROPOSAL NO.: RCP080222CR2**

Dear Mr. Millar,

Introduction

Rock Engineering and Testing Laboratory, LLC (RETL) is pleased to submit this proposal to provide Construction Materials Inspection and Testing Services for GMP#2 (and subsequent GMP's to include all project site work excluding GMP#1) for the referenced project located in Bastrop, Texas. RETL proposes to provide qualified personnel to perform inspection and testing services, as requested by your designated representative, in general accordance with the project specifications and plans.

Background Information

RETL has reviewed the following project information for use in the preparation of this proposal:

- Project drawing package prepared by Freese and Nichols dated August 2022.
- Project Specifications dated August 2022.
- Phone conversation with Brent Millar on 9/27/2022 in regards to quantities for materials testing quote.

Project Understanding

Based on the referenced information, we understand that the proposed project will consist of the following:

- Construction of multiple building structures for the WTP.
- Construction of paved access roads and site roads.
- Construction of a Storm Water Detention Pond.
- Installation of site utilities.
- Construction of Transmission Pipeline, Force Main, and Well Field Gathering Pipelines.

ROCK ENGINEERING AND TESTING LABORATORY, LLC
7 Roundville Lane • Round Rock, Texas 78664
OFFICE: (512) 284-8022 • FAX: (512) 284-7764 • www.rocktesting.com

Scope of Services

RETL proposes that the scope of our services for this project consist of the following inspections and testing services. Our services will be provided for determination of the contractors work for compliance with the project plans and specifications.

- **Earthwork Inspection and Testing – as requested**
 - Verify undercut and removal of vegetation and loose debris has been achieved prior to preparing the subgrade.
 - Observe placement of select fill materials to bring the site to the Design Subgrade Elevations.
 - Field moisture content and density testing performed on subgrade soils, Select Fill soils, and soils placed as backfill.
 - Laboratory testing of soils to include
 - Atterberg Limit (ASTM or TxDot)
 - Sieve Analysis (ASTM or TxDot)
 - Percent Finer than No. 200 Sieve (ASTM or TxDot)
 - Moisture Density Relationship (ASTM or TxDot)

- **Concrete/Masonry Inspection and Testing – as requested**
 - Continuous/Periodic inspection of the placement of structural and non-structural concrete/masonry.
 - Inspection and testing performed by personnel certified as ACI Concrete Field Testing Technician, Grade 1.
 - Obtain representative samples of concrete (ASTM C172)
 - Measurement of slump (ASTM C143)
 - Determination of air content (ASTM C231)
 - Measurement of temperature (ASTM C1064)
 - Preparation of compressive strength test specimens (ASTM C31, C109, C1019) per drawings and specifications.
 - Laboratory compressive strength testing of concrete/masonry test specimens (ASTM C39)

- **Structural Steel Inspection – as requested**
 - AWS-CWI to inspect bolted and welded connections per drawings and specifications.

- **Engineering**
 - Review of material testing reports.



Unit Rates

The type of inspections and field and laboratory tests that may be required on this project and the associated unit fees are as follows:

| | | | |
|---------------------------------------|----|--------|----------------------|
| • Atterberg Limits | \$ | 70.00 | each |
| • Moisture/Density Relationship | \$ | 235.00 | each |
| • Sieve Analysis | \$ | 65.00 | each |
| • Minus #200 Sieve | \$ | 50.00 | each |
| • Field Density Tests- Nuclear Method | \$ | 25.00 | each |
| • Concrete Test Specimens | \$ | 25.00 | each |
| • 2"X2"x2" Masonry Cubes | \$ | 25.00 | each |
| • 3"X3"X6" Masonry Grout Prisms | \$ | 25.00 | each |
| • Extraction/Gradation | \$ | 210.00 | each |
| • Maximum Theoretical SG | \$ | 75.00 | each |
| • Core Thickness/Density | \$ | 65.00 | each |
| • Concrete/Soils/HMAC Equipment | \$ | 50.00 | daily |
| • Engineering Technician | \$ | 65.00 | hour (con/mas) |
| • Sr. Engineering Technician | \$ | 70.00 | hour (soils/asphalt) |
| • AWS/CWI Inspector | \$ | 125.00 | hour |
| • Transportation Charge | \$ | 125.00 | each |
| • Project set-up | \$ | 125.00 | each |
| • Project Manager | \$ | 105.00 | hour |
| • Professional Engineer | \$ | 195.00 | hour |

Hourly rates will be billed at a 3-hour minimum. Overtime will be charged at a rate of 1.5 times the hourly rate for any services provided on weekdays, before 8am and after 5pm and over 8 hours per day in addition to the testing fee. Weekend work to include Holidays will be billed at a 4-hour minimum in addition to the testing fee.

Projected Budget

Based on the information provided and our experience providing Construction Materials Inspection and Testing Services on the similar projects, RETL anticipates that the following quantities of testing may be required for this project:

| | |
|-------------------------------------|---------------|
| • Atterberg Limits | 4 (SG/GF/SF) |
| • Moisture/Density Relationship | 4 (SG/GF/SF) |
| • Sieve Analysis | 4 (SG/GF/SF) |
| • Minus #200 Sieve | 4 (SG/GF) |
| • Field Density Test-Nuclear Method | 405 tests |
| • Concrete Test Specimens | 575 cylinders |
| • Masonry Cubes | 9 cubes |
| • Masonry Grout Prisms | 12 prisms |
| • Extraction/Gradation | 2 tests |
| • Maximum Theoretical SG | 2 tests |
| • Core Thickness/Density | 6 cores |



- Concrete/Soils/HMAC Equipment 376 days
- Engineering Technician 675 hours
- Sr. Engineering Technician 800 hours
- AWS/CWI Inspector 20 hours
- Transportation Charge 381 trips
- Project set-up 1 each
- Project Manager 16 hours
- Professional Engineer 6 hours

Estimated Budget

Using the applicable unit rates and the quantities listed in this proposal, an amount of \$199,315.00 is calculated. Based on RETL’s experience with similar type projects, testing services will be requested to be provided during overtime hours to accommodate the construction schedule. Anticipated services may include soils testing and concrete placements on weekends or during early morning hours. Taking this into consideration, RETL suggests that a Construction Materials Inspection and Testing Services budget amount of **\$205,500.00** be set aside for this project. The total fee will be dependent on the number of tests and inspections performed and number of trips made to the site. The above fee does not include any testing services provided during overtime or weekend hours.

Limitations

Services provided by RETL under this Agreement will be performed in a manner consistent with the degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

The Parties to this agreement agree that if any claim is made that RETL failed to comply with any term of this agreement or that it failed to perform its work and/or duties under this agreement properly, the client, upon proof that there was some failure to comply or some mistake in the performance of the work, shall not be entitling to recover any sum greater than the amount paid by the client to RETL for the services performed by RETL.

Either the Client or RETL may terminate this Agreement at any time with or without cause upon giving the other party 10-calendar days prior written notice. The Client shall within 10 calendar days of termination pay RETL for all services rendered and all costs incurred up to the date of termination, in accordance with the compensation provisions of this contract.



Closing

RETL looks forward to providing the construction materials testing and special inspections during the construction phase of this project. Copies of the construction materials testing reports will be delivered to the client via the email address provided by the client to RETL on the distribution list presented on the following page. As per International Building Code requirements, copies of the concrete break reports may also be distributed to the Ready-Mix Supplier. A hard copy of the construction materials testing reports will be available through the mail only if explicitly requested by the client. If there are any questions, or if we can be of assistance, please contact our office.

Sincerely,



Bryan Angelo, CET
CMT Project Manager – Round Rock

ACCEPTED AND APPROVED

By: 

Date: January 30, 2023



Arnie K. Hammock, P.E.
Vice President – Round Rock

