

Contract Change Order # 1

Project Name: Verdigris Water Treatment Plant Pretreatment Basin Expansion Project Number: 175436
 Project Location: Verdigris Water Treatment Plant Date of Application: Wednesday, November 28, 2018
 Contractor: Walters Morgan Construction, Inc. Submitted By: Jim Perkins

Summary of Change in Scope of Work

The following scope of work consisting of work location, work description, established quantities, and timeline for completion has been reviewed and agreed upon by the contractor, the origin funding department, and the Engineering and Construction Department.

Change of Work Items Included in this Change Order:

Specifications for the project currently place the construction materials testing obligations throughout the contract as the responsibility of the owner to provide as noted within section 03 05 05 Paragraph 1.2A. This change order is to modify this requirement to place the

- 1) construction materials testing obligations solely on the contractor. This is to include all third party materials testing required noted within the plans. The below costs are inclusive of all associated labor, materials, and markups as noted within the proposal.

- 2) As related to RFI #005, a conflicting 16" SW Line shall be removed to the south out of conflict with the new structure and capped accordingly; see RFI attached within. The below costs are inclusive of all associated labor, materials, and markups required to provide a complete in place product.

Change in Contractual Project Time:

1) & 2) No additional time has been requested for the associated work.

Plan Sheets or Additional Documents Attached: Yes No Other: _____

Work Order Quantities

Item#	(Spec)	Item Description	Units	Price	Quantity	Total Amount
CO1-1		Construction Materials Testing	LS	\$ 59,752.12	1	\$ 59,752.12
CO1-2		RFI #005 Response	LS	\$ 1,567.88	1	\$ 1,567.88
Total Change Cost:						\$ 61,320.00

Summary of Project Costs

Total Previous Change Orders:	\$ -	Original Contract Amount:	\$ 6,833,000.00
Current Change Order:	\$ 61,320.00	Amended Contract Amount:	\$ 6,894,320.00
Total Cost of Change Orders:	\$ 61,320.00	Percent Change in Contract:	0.90%
Total Cost Applicable to CBA:	\$ 61,320.00	Percent Change Applicable to CBA:	0.90%

Change Order Authorization

Change Order # <u>1</u> in the sum of: \$ <u>61,320.00</u> has been reviewed by all parties and is recommended for approval by:			
Contractor Submitting Change Order:	Name	Signature	Date
Construction Division Manager:	Timothy S Robins, PE	Signature	Date
Director of Engineering & Construction:	Alex Mills, PE	Signature	Date
Assistant City Manager - Operations:	Kenneth D Schwab, PE	Signature	Date
City Manager:	Michael Spurgeon	Signature	Date

This Change is Executed Through:

- This change to the contract documents is authorized by the City Manager's authority in accordance with the applicable state statutes and COBA Code of Ordinances.
or
- This change to the contract documents was approved at the City Council/BAMA meeting held on : Tuesday, December 4, 2018

1 **SECTION 03 05 05**
2 **CONCRETE TESTING AND INSPECTION**

3 **PART 1 - GENERAL**

4 **1.1 SUMMARY**

5 A. Section Includes:

- 6 1. Contractor requirements for testing of concrete and grout.
7 2. Definition of Owner provided testing.
8 3. Acceptance criteria for concrete.
9 4. Materials and concrete testing as required to establish concrete mix design.
10 5. Testing of concrete during construction for compliance with Contract Documents.

11 B. Related Specification Sections include but are not necessarily limited to:

- 12 1. Division 00 - Procurement and Contracting Requirements.
13 2. Division 01 - General Requirements.
14 3. Section 03 21 00 - Reinforcement.
15 4. Section 03 31 30 - Concrete, Materials and Proportioning.
16 5. Section 03 31 31 - Concrete Mixing, Placing, Jointing and Curing.

17 **1.2 RESPONSIBILITY AND PAYMENT**

18 A. Owner will hire an independent Testing Agency/Service Provider to perform the following
19 testing and inspection and provide test results to the Engineer and Contractor.

- 20 1. Testing and inspection of concrete and grout produced for incorporation into the work
21 during the construction of the Project for compliance with the Contract Documents.
22 2. Additional testing or retesting of materials occasioned by their failure, by test or inspection,
23 to meet requirements of the Contract Documents.
24 3. Strength testing on concrete required by the Engineer or Special Inspector when the water-
25 cement ratio exceeds the water-cement ratio of the typical test cylinders.
26 4. In-place testing of concrete as may be required by Engineer when strength of structure is
27 considered potentially deficient.
28 5. Other testing services needed or required by Contractor such as field curing of test
29 specimens and testing of additional specimens for determining when forms, form shoring or
30 reshoring may be removed.
31 6. Owner will pay for services defined in Paragraph 1.2A.1.
32 7. See Specification Section 01 30 00.

33 B. Contractor shall hire a qualified testing agency to perform the following testing and provide test
34 results to the Engineer.

- 35 1. Testing of materials and mixes proposed by the Contractor for compliance with the Contract
36 Documents and retesting in the event of changes.
37 2. Additional testing and inspection required because of changes in materials or proportions
38 requested by Contractor.
39 3. Contractor shall pay for services defined in Paragraphs 1.2B.1. and 1.2B.2.
40 4. Contractor shall reimburse Owner for testing services defined in Paragraphs 1.2A.2.,
41 1.2A.3., 1.2A.4. and 1.2A.5.
42 5. See Specification Section 01 30 00.

43 C. Duties and Authorities of Testing Agency/Service Provider:

- 44 1. Any Testing Agency/Service Provider or agencies and their representatives retained by
45 Contractor or Owner for any reason are not authorized to revoke, alter, relax, enlarge, or
46 release any requirement of Contract Documents, nor to reject, approve or accept any portion
47 of the Work.

CHANGE PROPOSAL NO. 1

WALTERS-MORGAN CONSTRUCTION, INC.
 WATER TREATMENT PLANT IMPROVEMENTS
 VERDIGRIS RIVER WTP - PRETREATMENT BASIN

REFERENCE Pre-Con Minutes
 ENGINEER # 10060891
 OWNER # 175436

JOB NO. 218-09
 DATE 19-Oct-18

DESCRIPTION: Add testing to the Contractors scope of work. Scope from GTS, Inc. is attached.

Item Description	Qty	Unit	Labor Unit \$	Labor Total	Mat Unit \$	Mat Total	Sub Unit \$	Sub Total	Equip Unit \$	Equip Total	Total
GTS, Inc. Geotech & Testing Services - See Scope	1	lsum	0.00	0.00	0.00	0.00	52800.00	52800.00	0.00	0.00	52800.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Direct Cost Subtotals \$0.00 \$0.00 \$52,800.00 \$0.00 \$52,800.00

Payroll Taxes, Insurance and Benefits (41%) \$0.00 \$0.00

SUBTOTAL with PT&I \$52,800.00

Contractor's Fee (15%) \$0.00

Fee on Subcontractor (5%) \$2,640.00

SUBTOTAL INCLUDING FEE \$55,440.00

Jobsite G&A Expense on Adds (6.5%) \$3,603.60

SUBTOTAL W/O BOND \$59,043.60

Bonds & Insurance (1.2%) \$708.52

CHANGE TOTAL WITH BOND \$59,752.12

ADDITIONAL TIME REQUESTED: Zero (0) Calendar Days

www.gtsconsulting.net

October 16, 2018



Walters-Morgan Construction, Inc.
2616 Tuttle Creek Boulevard
Manhattan, Kansas 66502

Attn: Mr. Jim Perkins

RE: Proposal for Special Inspections and Materials Testing Services
Verdigris Water Treatment Plant
Broken Arrow, Oklahoma
GTS Proposal No. 41811054

Mr. Perkins:

GTS, Inc. appreciates the opportunity to submit this proposal to perform Special Inspections and Construction Materials Testing (CMT) services on the above referenced project. This proposal provides our anticipated scope of services and includes our estimate of testing fees for this project as outlined in the below scope of services.

PROJECT SUMMARY

We understand that the project will consist of construction of the Verdigris River Water Treatment Plant Pretreatment Basin Expansion to include the pretreatment basin, site paving, and site utilities.

ANTICIPATED SCOPE OF SERVICES

Outlined below are the divisions of testing representing soils, concrete, grout, asphalt and structural steel, based on the project plans and specifications dated July 2018.

Site Preparation and Grading/Backfilling

- Verify the bearing capacity of native soils or select fill at foundation bearing depths of perimeter and column foundations through foundation observations by an engineer or senior technician – 8 trips
- Provide qualified personnel to perform field density and moisture content tests on an “on-call basis” for all structure, utility, and pavement areas during placement of material.
- Perform laboratory classification of proposed fill soils to determine their suitability and moisture-density relationship (proctor)
- Soil Sample Pick-up – 2 trips

- Soil Proctor, Sieve Analysis, Atterberg Limits – 3 samples (1 sample for on site soil, 1 sample for import soil, and 1 sample for ODOT Type A Aggregate Base)
- Proofroll Observations – 3 trips
- On site nuclear density testing – 20 trips

Foundation and Slab Observations

- Perform observations of structural concrete reinforcing elements for location, number of bars, size and spacing as required by the project documents. This service may be provided by the City; however, based on our experience we have also performed this service.

Estimated Trips

- 44 trips for foundations, walls and slabs

Concrete Observation, Sampling and Testing

- Sample and test plastic concrete per project specifications. Testing of the plastic concrete will include casting of concrete cylinders for testing of compressive strength, testing of its slump, air content, and temperature.
- Provide on-site curing box for concrete specimens and perform site visits to pick-up concrete specimens for further laboratory compressive strength testing.
- Perform laboratory compressive strength tests on cured concrete cylinders.

Estimated Trips

- Sidewalks – 3 trips casting 1 set of 6 test cylinders per trip
- Exterior Basin Walls - 10 trips casting 2 set of 6 test cylinders per trip
- Interior Basin Walls – 12 trips casting 2 sets of 6 test cylinders per trip
- Basin Slab/Floor – 3 trips casting 10 sets of 6 cylinders per trip
- Electrical Building– 2 trips casting 1 set of 6 cylinders per trip
- Sludge Pump Pad – 1 trip casting 1 set of 6 concrete cylinders
- Manhole Floors – 3 trips casting 1 set of 6 cylinders per trip
- Drain Pump Station - 3 trips casting 1 set of 6 cylinders per trip
- Concrete Paving – 2 trips casting 2 sets of 6 cylinders per trip
- Flow Control Valve Vaults – 3 trips casting 1 set of 6 cylinders per trip
- Miscellaneous Pours - 3 trips casting 1 set of 6 cylinders per trip
- Cylinder Pick-up – 20 trips to the site to retrieve concrete test cylinders when there is not a concrete placement scheduled for the following day
- Additional Cylinder pick up – 20 trips - It is required per project specifications to cast 1 cylinder for the 7-day break and cure that cylinder on site

Masonry Observation, and Grout Sampling/Testing



- Observe and record masonry construction and inspect reinforcing steel
- Perform grout testing and cast compressive strength grout specimens

Estimated Trips

- 2 trips to sample and test grout for the pretreatment basin
- 2 trips for masonry observation and grout testing for the electrical building

Asphalt Observation, Sampling, and Testing

- Sample and test Hot Mix Asphalt per project specifications
- Cut and retrieve asphalt cores for lab density testing per project specifications

Estimated Trips

- Asphalt placement observation – 2 trips for observation and obtaining asphalt bulk samples per project specifications, and performing nuclear density testing of in place asphalt
- Asphalt Coring – 1 trip to extract asphalt cores per project specifications

Structural Steel

- Inspections of structural steel welds and high strength bolted connections – 4 trips

TOTAL COST ESTIMATE

Based on the information outlined in this proposal, GTS, Inc. estimates that “on-call” Testing and Special Inspection Services for this project will be **approximately \$52,800** billed based on GTS, Inc’s standard unit rates.

*Services requested for this project in addition to the scope outlined above will be billed based on GTS Inc.'s standard unit rate sheets.

CLOSING

Thank you for the opportunity to present this proposal. Please call if you have any questions or if you have suggestions regarding changes to the agreement or to the proposed work scope. We look forward to working with you on the project.

Sincerely,



A handwritten signature in blue ink, appearing to read "B. Gaston", is positioned below the GTS logo.

Bryan Gaston
Broken Arrow Office Manager

Nathan Young, P.E. (AR, MO)
Project Engineer

Copies to: jperkins@waltersmorgan.com

AGREEMENT FOR CONSTRUCTION MATERIALS TESTING AND SPECIAL INSPECTION SERVICES

THIS AGREEMENT, effective as of this _____ day of _____ 2018, is by and between Walters-Morgan, Construction, Inc. ("Client") and GTS, Inc. ("Engineer").

THE PROJECT is understood to consist of the expansion of a water treatment plant pre-treatment basin and related sitework, located in Broken Arrow, Oklahoma.

THIS AGREEMENT consists of the appended documents which are incorporated herein by reference:

- GTS Proposal No. 41811054 (a/k/a Scope of Services);
- GTS Laboratory and Field Unit Rate Sheets; and
- General Conditions for Construction Materials Testing and Special Inspection Services

Engineer agrees to perform the Services set forth in this Agreement and in accordance with its terms, including all attachments incorporated herein by reference. This Agreement may not be modified or altered, except in writing as specifically described in this Agreement.

CLIENT:

ENGINEER:

Signature:		
Print Name:		David Berry, P.E.
Title:		CMT Services Manager
Company:	Walters-Morgan Construction, Inc.	GTS, Inc.
Address:	2616 Tuttle Creek Boulevard	1915 N Shiloh Drive, Suite 1
	Manhattan, Kansas 66502	Fayetteville, Arkansas 72704
Date:		



GENERAL CONDITIONS FOR CONSTRUCTION MATERIALS TESTING AND SPECIAL INSPECTION SERVICES

1. DEFINITIONS

1.1. Contract Documents. Plans, specifications, and agreements between Client and Contractors, including addenda, amendments, supplementary instructions, and change orders.

1.2. Contractor. The contractor or contractors retained to construct the Project for which Engineer is providing Services under this Agreement.

1.3. Day(s). Calendar day(s) unless otherwise stated.

1.4. Hazardous Materials. The term Hazardous Materials means any toxic substances, chemicals, radioactivity, pollutants or other materials, in whatever form or state, known or suspected to impair the environment in any way whatsoever. Hazardous Materials include, but are not limited to, those substances defined, designated or listed in any federal, state or local law, regulation or ordinance concerning hazardous wastes, toxic substances or pollution.

1.5. Services. The Services provided by Engineer as set forth in this Agreement, the SCOPE OF SERVICES and any written amendment to this Agreement.

1.6. Work. The labor, materials, equipment and services required to complete the work described in the Contract Documents.

2. SCOPE OF SERVICES

Engineer will perform the Services set forth in the attached SCOPE OF SERVICES.

2.1. Changes in Scope. If Engineer provides Client with a writing confirming a change in the SCOPE OF SERVICES, it will become an amendment to this Agreement unless Client objects in writing within 5 business days after receipt. All Services performed by Engineer on the Project are subject to the terms and limitations of this Agreement. If Services are performed, but the parties do not reach agreement concerning modifications to the SCOPE OF SERVICES or compensation, then the terms and limitations of this Agreement apply to such Services, except for the payment terms. The parties agree to resolve disputes concerning modifications to scope or compensation pursuant to Section 19, "Disputes."

2.2. Licenses. Engineer will procure and maintain business and professional licenses and registrations necessary to provide its Services.

2.3. Excluded Services. Engineer's Services under this Agreement include only those Services specified in the SCOPE OF SERVICES.

2.3.1. General. Client expressly waives any claim against Engineer resulting from its failure to perform

recommended additional Services that Client has not authorized Engineer to perform, and any claim that Engineer failed to perform services that Client instructs Engineer not to perform.

2.3.2. Biological Pollutants. Engineer's SCOPE OF SERVICES specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, viruses, and/or any of their byproducts. Engineer's SCOPE OF SERVICES will not include any interpretations, recommendations, findings, or conclusions pertaining to Biological Pollutants. Client agrees that Engineer has no liability for any claims alleging a failure to investigate, detect, prevent, assess, or make recommendations for preventing, controlling, or abating Biological Pollutants. Furthermore, Client agrees to defend, indemnify, and hold harmless Engineer from all claims by any third party concerning Biological Pollutants, except for damages caused by Engineer's sole negligence.

3. PAYMENTS TO ENGINEER

3.1. Basic Services. Engineer will perform all Services set forth in the attached SCOPE OF SERVICES for the amount(s) set forth therein.

3.2. Additional Services. Any Services performed under this Agreement, except those Services expressly identified in the attached SCOPE OF SERVICES, will be provided on a time and materials basis unless otherwise specifically agreed to in writing by both parties.

3.3. Estimate of Fees. Engineer will, to the best of its ability, perform the Services and accomplish the objectives defined in this Agreement within any written cost estimate provided by Engineer. Client recognizes that changes in scope and schedule, and unforeseen circumstances can all influence the successful completion of Services within the estimated cost. The use of an estimate of fees or of a "not to exceed" limitation is not a guarantee that the Services will be completed for that amount; rather, it indicates that Engineer shall not incur fees and expenses in excess of the estimate or limitation amount without obtaining Client's agreement to do so.

3.4. Rates. Client will pay Engineer at the rates set forth in the FEES SECTION OF THE SCOPE OF SERVICES.

3.4.1. Changes to Rates. Client and Engineer agree that the FEES SECTION OF THE SCOPE OF SERVICES is subject to periodic review and amendment, as appropriate to reflect Engineer's then-current fee structure. Engineer will give Client at least 30 days advance notice of any changes. Unless Client objects in writing to the proposed amended fee structure

within 30 days of notification, the amended fee structure will be incorporated into this Agreement and will then supersede any prior fee structure. If Client timely objects to the amended fee structure, and Engineer and Client cannot agree upon a new fee structure within 30 days after notice, Engineer may terminate this Agreement and be compensated as set forth under Section 18, "Termination."

3.4.2. Prevailing Wages. *Unless Client specifically informs Engineer in writing that prevailing wage regulations cover the Project and the SCOPE OF SERVICES identifies it as covered by such regulations, Client will reimburse, defend, indemnify and hold harmless Engineer from and against any liability resulting from a subsequent determination that prevailing wage regulations cover the Project, including all costs, fines and attorneys' fees.*

3.5. Payment Timing; Late Charge. All invoices are due within 30 days after 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 1-1/2% per month or the highest rate permitted by law.

4. STANDARD OF PERFORMANCE; DISCLAIMER OF WARRANTIES

4.1. Level of Service. Engineer 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.

4.2. Standard of Care. 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 this Agreement, Engineer may perform its Services consistent with that level of care and skill ordinarily exercised by other professional engineers practicing in the same locale and under similar circumstances at the time the Services are performed.

4.3. No Warranty. No warranty, express or implied, is included or intended by this Agreement.

5. ESTIMATE OF CONSTRUCTION COSTS

Client acknowledges that construction and Project development are subject to many influences that are not subject to precise forecasting and are outside of Engineer's control. Client further acknowledges that actual costs incurred may vary substantially from the estimates prepared by Engineer and that Engineer does not warrant or guaranty the accuracy of construction or development cost estimates.

6. CONSTRUCTION PHASE SERVICES

If Engineer's SCOPE OF SERVICES includes observation and/or testing during the course of construction, Engineer may:

6.1. Construction Observation.

6.1.1. Site Meetings & Visits. *Engineer will participate in job site meetings as requested by Client, and, unless*

otherwise requested by Client, visit the site at times specified in the SCOPE OF SERVICES or, if not specified in the SCOPE OF SERVICES, at intervals as Engineer deems appropriate to the various stages of construction to observe the geotechnical conditions encountered by Contractor and the progress and quality of the geotechnical aspects of the Work. Based on information obtained during such visits and on such observations, Engineer may inform Client of the progress of the geotechnical aspects of the Work. Client understands that Engineer may not be on site continuously; and, unless expressly agreed otherwise, Engineer will not observe all of the Work.

6.1.2. Contractor's Performance. *Engineer does not, and cannot, warrant or guarantee that all of the geotechnical Work performed by Contractor meets the requirements of Engineer's geotechnical recommendations or the plans and specifications for such geotechnical Work; nor can Engineer be responsible for Contractor's failure to perform the Work in accordance with the plans, specifications or the recommendations of Engineer.*

6.1.3. Contractor's Responsibilities. *Engineer will not supervise, direct or have control over the Work nor will Engineer have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by Contractor for the geotechnical aspects of the Project; for safety precautions and programs incident to the Work; nor for any failure of Contractor to comply with Laws and Regulations applicable to Contractor furnishing and performing its Work.*

6.1.4. Final Report. *At the conclusion of Construction Phase Services, Engineer will provide Client with a written report summarizing the tests and observations, if any, made by Engineer.*

6.2. Review of Contractor's Submittals. If included in the SCOPE OF WORK, Engineer will review and take appropriate action on the Contractor's submittals, such as shop drawings, product data, samples, and other required submittals. Engineer will review such submittals solely for general conformance with Engineer's design, and will not include review for the following, all of which will remain the responsibility of the Contractor: accuracy or completeness of details, quantities or dimensions; construction means, methods, sequences or procedures; coordination among trades; or construction safety.

6.3. Tests. Tests performed by Engineer on finished Work or Work in progress are taken intermittently and indicate the general acceptability of the Work on a statistical basis. Engineer's tests and observations of the Work are not a guarantee of the quality of Work and do not relieve other parties from their responsibility to perform their Work in accordance with applicable plans, specifications and requirements.

7. CLIENT'S RESPONSIBILITIES

In addition to payment for the Services performed under this Agreement, Client agrees to:

7.1. Cooperation. Assist and cooperate with Engineer in any manner necessary and within its ability to facilitate Engineer's performance under this Agreement.

7.2. Representation. Designate a representative with authority to receive all notices and information pertaining to agreement, communicate Client's policies and decisions, and assist as necessary in matters pertaining to the Project and this Agreement. Client's representative will be subject to change by written notice.

7.3. Rights of Entry. Provide access to and/or obtain permission for Engineer to enter upon all property, whether or not owned by Client, as required to perform and complete the Services. Engineer will operate with reasonable care to minimize damage to the Project Site(s). However, Client recognizes that Engineer's operations and the use of investigative equipment may unavoidably alter conditions or affect the environment at the existing Project Site(s). The cost of repairing such damage will be borne by Client and is not included in the fee unless otherwise stated.

7.4. Relevant Information. Supply Engineer with all information and documents in Client's possession or knowledge which are relevant to Engineer's Services. Client warrants the accuracy of any information supplied by it to Engineer, and acknowledges that Engineer 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 Engineer of any known potential or possible health or safety hazard existing on or near the Project Site, with particular reference to Hazardous Materials or conditions.

7.5. Subsurface Structures. Correctly designate on plans to be furnished to Engineer, the location of all subsurface structures, such as pipes, tanks, cables and utilities within the property lines of the Project Site(s), and be responsible for any damage inadvertently caused by Engineer to any such structure or utility not so designated. Engineer is not liable to Client for any losses, damages or claims arising from damage to subterranean structures or utilities that were not correctly shown on plans furnished by Client to Engineer.

8. CHANGED CONDITIONS

If Engineer discovers conditions or circumstances that it had not contemplated at the commencement of this Agreement ("Changed Conditions"), Engineer will notify Client in writing of the Changed Conditions. Client and Engineer agree to that they will then renegotiate in good faith the terms and conditions of this Agreement. If Engineer and Client cannot agree upon amended terms and conditions within 30 days after notice, Engineer may terminate this Agreement and be compensated as set forth in Section 18, "Termination."

9. HAZARDOUS MATERIALS

Client understands that Engineer's Services under this Agreement are limited to geotechnical engineering and that Engineer has no responsibility to locate, identify, evaluate, treat or otherwise consider or deal with Hazardous Materials. Client is solely responsible for notifying all appropriate federal, state, municipal or other governmental agencies, including the potentially affected public, of the existence of any Hazardous Materials located on or in the Project site, or located during the performance of this Agreement. The existence or discovery of Hazardous Materials constitutes a Changed Condition under this Agreement.

10. CERTIFICATIONS

Client agrees not to require that Engineer execute any certification with regard to Services performed or Work tested and/or observed under this Agreement unless: 1) Engineer believes that it has performed sufficient Services to provide a sufficient basis to issue the certification; 2) Engineer believes that the Services performed or Work tested and/or observed meet the criteria of the certification; and 3) Engineer has reviewed and approved in writing the exact form of such certification prior to execution of this Agreement. Any certification by Engineer is limited to an expression of professional opinion based upon the Services performed by Engineer, and does not constitute a warranty or guaranty, either expressed or implied.

11. ALLOCATION OF RISK

11.1. Limitation of Liability. The total cumulative liability of Engineer, its subconsultants and subcontractors, and all of their respective shareholders, directors, officers, employees and agents (collectively "Engineer 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 Engineer under this Agreement or \$50,000 whichever is greater; 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 Engineer's Services, whether alleged to arise in tort, contract, warranty, or other legal theory. Upon Client's written request, Engineer and Client may agree to increase the limitation to a greater amount in exchange for a negotiated increase in Engineer's fee, provided that they amend this Agreement in writing as provided in Section 20.

11.2. Indemnification.

11.2.1. Indemnification of Client. Subject to the provisions and limitations of this Agreement, Engineer agrees to indemnify and hold harmless Client, its shareholders, officers, directors, employees, and agents from and against any and all claims, suits, liabilities, damages, expenses (including without limitation reasonable attorney's fees and costs of defense), or other losses (collectively "Losses") to the extent caused by Engineer's negligent performance of its Services under this Agreement.

11.2.2. Indemnification of Engineer. Except as governed by Arkansas law regarding the immunity of municipalities, Client will indemnify and hold harmless Engineer Entities from and against any and all Losses to the extent caused by the negligence of Client, its employees, agents and contractors. In addition, except to the extent caused by Engineer's sole negligence, Client expressly agrees to defend, indemnify and hold harmless Engineer Entities from and against any and all Losses arising from or related to the existence, disposal, release, discharge, treatment or transportation of Hazardous Materials, or the exposure of any person to Hazardous Materials, or the degradation of the environment due to the presence, discharge, disposal, release of or exposure to Hazardous Material.

11.3. Consequential Damages. Neither Client nor Engineer 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.

11.4. Continuing Agreement. The indemnity obligations and the limitations of liability established under this Agreement will survive the expiration or termination of this Agreement. If Engineer provides Services to Client that the parties do not confirm through execution of an amendment to this Agreement, the obligations of the parties to indemnify each other and the limitations on liability established under this Agreement apply to such Services as if the parties had executed an amendment.

12. INSURANCE

12.1. Engineer's Insurance. Engineer will obtain, if reasonably available, the following coverages:

12.1.1. Statutory Workers' Compensation/Employer's Liability Insurance;

12.1.2. Commercial General Liability Insurance with a combined single limit of \$1,000,000;

12.1.3. Automobile Liability Insurance, including liability for all owned, hired and non-owned vehicles with minimum limits of \$1,000,000 for bodily injury per person, \$1,000,000 property damage, and \$1,000,000 combined single limit per occurrence; and,

12.1.4. Professional Liability Insurance in amounts of \$1,000,000 per claim and annual aggregate.

12.2. Contractor's Insurance. Client shall require that all Contractors and subcontractors for the Project name Engineer as an additional insured under their General Liability and Automobile Liability insurance policies. If Client is not the Project owner, Client will require the Project owner to require the owner's Contractor to purchase and maintain General Liability, Builder's Risk, Automobile Liability, Workers' Compensation, and Employer's Liability insurance with limits no less than as set forth above, and to name Engineer and its subcontractors and subconsultants as additional insureds on the General Liability insurance.

12.3. Certificates of Insurance. Upon request, Engineer and Client will each provide the other with certificate(s) of insurance evidencing the existence of the policies required herein. Except for Professional Liability and Workers' Compensation Insurance, all policies required herein shall contain a waiver of subrogation.

13. OWNERSHIP AND USE OF DOCUMENTS

13.1. Client Documents. All documents provided by Client will remain the property of Client. Engineer will return all such documents to Client upon request, but may retain file copies of such documents.

13.2. Engineer's Documents. Unless otherwise agreed in writing, all documents and information prepared by Engineer or obtained by Engineer from any third party in connection with the performance of Services, including, but not limited to, Engineer'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 Engineer. Engineer has the right, in its sole discretion, to dispose of or retain the Documents.

13.3. Use of Documents. All Documents prepared by Engineer are solely for use by Client and will not be provided by either party to any other person or entity without Engineer's prior written consent.

13.3.1. Use by Client. Client has the right to reuse the Documents for purposes reasonably connected with the Project for which the Services are provided, including without limitation design and licensing requirements of the Project.

13.3.2. Use by Engineer. Engineer retains the right of ownership with respect to any patentable concepts or copyrightable materials arising from its Services and the right to use the Documents for any purpose.

13.4. Electronic Media. Consultant may agree at Client's request to provide Documents and information in an electronic format. Client recognizes that Documents or other information recorded on or transmitted as electronic media are subject to undetectable alteration due to (among other causes) transmission, conversion, media degradation, software error, or human alteration. Accordingly, all Documents and information provided by Consultant in electronic media are for informational purposes only and not as final documentation. Unless otherwise defined in the Scope of Services, Consultant's electronic Documents and media will conform to Consultant's standards. Consultant will provide any requested electronic Documents for a 30-day acceptance period, and Consultant will correct any defects reported by Client to Consultant during this period. Consultant makes no warranties, either express or implied, regarding the fitness or suitability of any electronic Documents or media.

13.5. Unauthorized Reuse. No party other than Client may rely, and Client will not represent to any other party that it may rely on Documents without Consultant's express prior written consent and receipt of additional compensation. Client will not permit disclosure, mention, or communication of, or reference to the Documents in any offering circular, securities offering, loan application, real estate sales documentation, or similar promotional material without Consultant's express prior written consent. Client waives any and all claims against Consultant resulting in any way from the unauthorized reuse or alteration of Documents by itself or anyone obtaining them through Client. Client will defend, indemnify and hold harmless Consultant from and against any claim, action or proceeding brought by any party claiming to rely upon information or opinions contained Documents provided to such person or entity, published, disclosed or referred to without Consultant's prior written consent.

14. SAMPLES AND CUTTINGS

14.1. Sample Retention. If Engineer provides laboratory testing or analytic Services, Engineer will preserve such soil, rock, water, or other samples as it deems necessary for the Project, but no longer than 45 days after issuance of any Documents that include the data obtained from these samples. Client will promptly pay and be responsible for the removal and lawful disposal of all contaminated samples, cuttings, Hazardous Materials, and other hazardous substances.

14.2. Monitoring Wells. Client will take custody of all monitoring wells and probes installed during any investigation

by Engineer, and will take any and all necessary steps for the proper maintenance, repair or closure of such wells or probes at Client's expense.

15. RELATIONSHIP OF THE PARTIES

Engineer will perform Services under this Agreement as an independent contractor.

16. ASSIGNMENT AND SUBCONTRACTS

Neither party may assign this Agreement, in whole or in part, without the prior written consent of the other party, except for an assignment of proceeds for financing purposes. Engineer may subcontract for the services of others without obtaining Client's consent if Engineer deems it necessary or desirable for others to perform certain Services.

17. SUSPENSION AND DELAYS

17.1. Procedures. Client may, at any time by 10 days written notice suspend performance of all or any part of the Services by Engineer. Engineer may terminate this Agreement if Client suspends Engineer's Services for more than 60 days and Client will pay Engineer as set forth under Section 18, "Termination." If Client suspends Engineer's Services, or if Client or others delay Engineer's Services, Client and Engineer agree to equitably adjust: (1) the time for completion of the Services; and (2) Engineer's compensation in accordance with Engineer's then current SCHEDULE OF CHARGES for the additional labor, equipment, and other charges associated with maintaining its workforce for Client's benefit during the delay or suspension, or charges incurred by Engineer for demobilization and subsequent remobilization.

17.2. Liability. Engineer is not liable to Client for any failure to perform or delay in performance due to circumstances beyond Engineer's control, including but not limited to pollution, contamination, or release of hazardous substances, strikes, lockouts, riots, wars, fires, flood, explosion, "acts of God," adverse weather conditions, acts of government, labor disputes, delays in transportation or inability to obtain material and equipment in the open market.

18. TERMINATION

18.1. Termination for Convenience. Engineer and Client may terminate this Agreement for convenience upon 30 days written notice delivered or mailed to the other party.

18.2. Termination for Cause. In the event of material breach of this Agreement, the party not breaching the Agreement may terminate it upon 10 days written notice delivered or mailed to the other party. The termination notice shall state the basis for the termination. The Agreement may not be terminated for cause if the breaching party cures the breach within the 10-day period.

18.3. Payment on Termination. Following termination other than for Engineer's material breach of this Agreement, Client will pay Engineer for Services performed prior to the termination notice date, and for any necessary Services and expenses incurred in connection with the termination of the Project, including but not limited to, the costs of completing analysis, records and reports necessary to document job status at the time of termination and costs associated with termination

of subcontractor contracts in accordance with Engineer's then current FEES SECTION OF THE SCOPE OF SERVICES.

19. DISPUTES

19.1. Mediation. All disputes between Engineer and Client are subject to mediation. Either party may demand mediation by serving a written notice stating the essential nature of the dispute, amount of time or money claimed, and requiring that the matter be mediated within 45 days of service of notice.

19.2. Precondition to Other Action. No action or suit may be commenced unless the mediation did not occur within 45 days after service of notice; or the mediation occurred but did not resolve the dispute; or a statute of limitation would elapse if suit was not filed prior to 45 days after service of notice.

19.3. Choice of Law; Venue. This Agreement will be construed in accordance with and governed by the laws of the state in which the Project is located. Unless the parties agree otherwise, any mediation or other legal proceeding will occur in the state in which the Project is located.

19.4. Statutes of Limitations. Any applicable statute of limitations will be deemed to commence running on the earlier of the date of substantial completion of Engineer's Services under this Agreement or the date on which claimant knew, or should have known, of facts giving rise to its claims.

20. MISCELLANEOUS

20.1. Integration and Severability. This Agreement reflects the entire agreement of the parties with respect to its terms and supersedes all prior agreements, whether written or oral. If any portion of this Agreement is void or voidable, such portion will be deemed stricken and the Agreement reformed to as closely approximate the stricken portions as the law allows.

20.2. Modification of this Agreement. This Agreement may not be modified or altered, except by a written agreement signed by authorized representatives of both parties and referring specifically to this Agreement.

20.3. Notices. Any and all notices, requests, instructions, or other communications given by either party to the other must be in writing and either hand delivered to the recipient or delivered by first-class mail (postage prepaid) or express mail (billed to sender) at the addresses given in this Agreement.

20.4. Headings. The headings used in this Agreement are for convenience only and are not a part of this Agreement.

20.5. Waiver. The waiver of any term, conditions or breach of this Agreement will not operate as a subsequent waiver of the same term, condition, or breach.

26097 E. 105th Street

office 918-622-0700

Broken Arrow, Oklahoma 74014

*Tulsa, Oklahoma Office***GTS, Inc.**

Geotechnical & Testing Services

Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
<i>Earthwork and Soils</i>	Soil Density Testing	Materials Testing Technician performing in-place soil densities	AASHTO T310, ASTM D6938	\$42.50	NA
	Soil/Aggregate Sample Pick up	On site sampling of soils and aggregates for laboratory testing	AASHTO T2, ASTM D 75	\$42.50	NA
	Proofroll and Undercut Observation	Engineering observation of on site soils prior to placement of fill material or after undercut has been completed	NA	\$85.00	NA
<i>Concrete</i>	Field Concrete Testing	On site sampling, testing and making concrete test specimens of freshly mixed concrete	AASHTO T23, T119, T141, T152, T309, ASTM C31, C143, C172, C231, C1064	\$42.50	NA
	Concrete Cylinder Pick up (per set charge)	Retrieving concrete test specimens made by GTS or by the client	NA	\$30.00	NA
	Concrete Rebound Hammer (Schmidt Hammer)	Assess the in-place uniformity of concrete and to estimate in-place strength	ASTM C805	\$85.00	\$15.00

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Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
Concrete	Concrete Coring and Sampling	Coring and sampling of hardened concrete including backfilling with grout	AASHTO T24 ASTM C42	\$65.00	\$65.00
	Concrete maturity and temperature testing	Placement and downloading of maturity and temperature information and equipment	ASTM C1074	\$85.00	NA
	Concrete maturity and temperature sensors (per sensor fee)	Field Sensors	ASTM C1074	NA	\$70.00
	Floor Flatness Determination	Evaluating and providing statistical (and graphical) information concerning floor surface profiles	ASTM E1155	\$85.00	.02 per square foot
	Concrete Floor Vapor Emission Testing	Obtaining a quantitative value indicating the rate or moisture vapor emission from a concrete floor	ASTM F1869	\$85.00	\$25 per kit
	Concrete Ph testing	Evaluating the Ph of concrete floors	ASTM F710	\$85.00	\$10 per kit
	Concrete mortar time of setting testing	Time of setting concrete by means of penetration resistance method	ASTM C403	\$85.00	\$150.00

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Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
Concrete	Concrete Floor Relative Humidity Insitu Probe Testing	Quantitative determination of percent relative humidity in concrete slabs	ASTM F2170	\$85.00	\$100.00 per site visit
Masonry, Grout and Mortar	Field Grout Testing	On site sampling, testing and making grout test specimens of freshly mixed grout	AASHTO T23, T119, T309, ASTM C1019, C143, C1064	\$42.50	NA
	Field Observation of CMU Block Wall Construction	Visual observation of CMU reinforcing, joint placement, bond beams etc.	NA	\$85.00	NA
	Field Mortar Testing	On site sampling, testing and making mortar test specimens of freshly mixed preblended mortar	ASTM C1714	\$42.50	NA
Asphalt	Asphalt Rolling Pattern	Evaluation of density with passes of compaction equipment of fresh hot mix asphalt	ASTM D2950	\$65.00	NA
	Asphalt coring and sampling	Coring and sampling of in place asphalt including backfilling with grout	ASTM D979, AASHTO T168	\$65.00	\$65.00

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Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
<i>Construction Observation and additional Special Inspections</i>	Observation of straight shaft drilled piers	Observation of soil type, depth, reinforcing bars, bearing capacity, etc.	NA	\$85.00	NA
	Observation of Geopier foundations	Observation of soil type, depth, compactive effort, bearing capacity, etc.	NA	\$85.00	NA
<i>Construction Observation and additional Special Inspections</i>	Observation of retaining wall installation	Observation of retaining wall construction	NA	\$85.00	NA
	Observation of soil bearing capacity for foundation elements	Observation of soil types and bearing capacity	NA	\$85.00	NA
	Observation of reinforcing bars for foundation and structural elements	Observation of size, number and placement of reinforcing bars	NA	\$85.00	NA
	Observation of driven pile foundations	Observation of driven piles, number of blows, pile size, etc.	NA	\$85.00	NA
	Observation of soil nail reinforcement	Observation of soil nails, bar size, bar length, grout type and strength, etc.	NA	\$85.00	NA
	Observation of micropile foundations	observation of micropiles, bar size, bar length, grout type and strength, etc.	NA	\$85.00	NA

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Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
<i>Construction Observation and additional Special Inspections</i>	Observation of Post Tension concrete systems	observation of installation and tensioning of post tension cables	NA	\$85.00	NA
	Fireproofing Observation	observation of fireproofing for thickness, density and cohesion	ASTM E605	\$85.00	NA
<i>Engineering</i>	Principal Professional Engineer	Professional Engineer services in the field or report writing	NA	\$120.00	NA
	Staff Professional Engineer	Professional Engineer services in the field or report writing	NA	\$100.00	NA
	Intern-Engineer	Intern engineer services in the field or report writing	NA	\$85.00	NA
<i>Structural Steel</i>	Certified Welding Inspector (CWI)	Code compliance, visual and ultrasonic weld inspection, bolt inspection, impact wrench calibration, etc.	Varies	\$120.00	NA
	Reinforcing Bar Locating	Locating reinforcing bars, conduits, post tension cables, etc. in concrete slabs	Varies	\$120.00	\$500.00
	Skidmore Wilhelm	Tension Calibrator	Varies	\$120.00	\$40.00
	Torque Multiplier	Used in conjunction with torque wrench for high strength bolt testing	NA	\$120.00	\$100.00

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Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
<i>Structural Steel</i>	Torque Wrench	Used for testing torque of high strength bolts	Varies	\$120.00	\$20.00
	Ultra Sonic Testing	UT Machine	Varies	\$120.00	\$40.00
	Mag Particle Testing	Mag Particle Yoke	Varies	\$120.00	\$40.00
	x-ray services	x-ray of structural welds	Varies	upon request	upon request
	Bolt Pulling Test	Used to check the suitability and allowable loads of an anchor type and check they have been installed correctly	Varies	\$120.00	\$150.00
<i>Forensic Testing</i>	Impact Echo Services	Using sound waves to determine flaws and/or thicknesses in concrete structures	NA	\$120.00	\$250.00
	Ground Penetrating Radar	Using radar to locate, reinforcing bars or conduits in concrete, underground utilities, underground structures or tanks, etc.	NA	\$120.00	\$500.00

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Field Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Hourly Rate	Daily Equipment Fee (if applicable)
<i>Forensic Testing</i>	Sonic Echo Impulse Response	Non-Destructive method of determining length and integrity of concrete foundations	NA	\$120.00	\$1,000.00
	FLIR Infrared Camera Imaging	Infrared imaging of building components using a Flir E60 camera	NA	\$120.00	\$400.00
<i>Administrative and Mileage</i>	Mileage	Portal to portal rates to and from the GTS, Inc. office to the jobsite	NA	Based on published current IRS government mileage rates plus 5%	
	Report Preparation and Review (Per Report)	Includes report typing and distribution. (Technician reports only)	NA	\$10.00	NA
	Overtime, Weekend, and Holiday Rates	Work requested to be performed on weekends or prior to 6:00 am and after 6:00 pm Monday through Friday will be billed an additional \$5 per hour above the normal hourly rates listed above and Holiday will be Triple the normal hourly rates. Any test scheduled before 5:00 A.M. but not performed by no fault of GTS will be a minimum charge of \$200.00.			
	Minimum Time Charge	There is a Minimum charge of 1 hour on site Time and .5 hour travel time			

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GTS, Inc.
Geotechnical & Testing Services

Laboratory Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Unit Rate
<i>Earthwork and Soils and Aggregates</i>	Moisture - Density Relationship	Standard Proctor	AASHTO T99, ASTM D698	\$125.00
	Moisture - Density Relationship	Modified Proctor	AASHTO T180, ASTM D1557	\$145.00
	Moisture Content	Moisture content of soils	ASTM D2216	\$10.00
	Atterberg Limits	3 point wet preparation for liquid limit and one point plastic limit	AASHTO T-89, AASHTO T-90, ASTM D 4318	\$60.00
	Sieve Analysis	Washed and dried sieve used for soil classification determination (< 5 lbs)	ASTM C136	\$60.00
	Sieve Analysis	Washed and dried oversized sieve (greater than 5 lbs)	AASHTO T 27, ASTM C136	\$125.00
	Sieve Analysis (Hydrometer)	Fine particle determination using a hydrometer	AASHTO T 88, ASTM D 422	\$100.00
	Specific Gravity and Absorption	Determination of specific gravity and absorption or material retained on a #4 or 3/4" sieve	AASHTO T 100, ASTM D 854	\$50.00
	California Bearing Ratio (CBR) 3-point method	Evaluating the potential strength of subgrade, subbase, and base course material, for use in road and airfield pavements.	ASTM D 1883, AASHTO T 193	\$250.00

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Laboratory Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Unit Rate
<i>Earthwork and Soils and Aggregates</i>	Unconfined Compressive Strength Testing	Obtain a measure of compressive strength for soils that possess sufficient cohesion to permit testing in the unconfined state	ASTM D 2166, AASHTO T 208	\$100.00
	Triaxial testing**	Unconsolidated - Undrained (UU)	AASHTO T 296, ASTM D 2850	\$375.00
	Triaxial testing**	Consolidated - Undrained (CU)	AASHTO T 297, ASTM D 4767	\$500.00
	Triaxial testing**	Consolidated - Drained (CD)	ASTM WK 3821	\$750.00
	Soil Consolidation ** (One-Dimensional, Interval Loading)	Determining the magnitude and rate of consolidation of soil when it is restrained laterally and drained axially while subjected to incrementally applied controlled-stress loading.	ASTM D 2435, AASHTO T 216	\$300.00
	Permeability Testing (Flexible Wall)**	These test methods apply to one-dimensional, laminar flow of water within porous materials such as soil and rock.	ASTM D 2434, AASHTO T-215, ASTM D 5084	\$300.00
	**	sample prep or remolding	NA	\$75.00

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Category	Name of Test	Description	Relevant ASTM and AASHTO	Unit Rate
Earthwork and Soils and Aggregates	Sand Equivalency Test	This test assigns an empirical value to the relative amount, fineness, and character of claylike material present in the specimen.	ASTM D 2419, AASHTO T 176	\$150.00
	Soundness of Aggregates	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate	ASTM C 88, AASHTO T 104	\$425.00
	LA Abrasion	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C 131, AASHTO T 96	\$575.00
	Deleterious Material Determination	determination of friable particles, clay lumps, and soft fragments in an aggregate	NA	\$50.00
	Swell Test ** (One-Dimensional)	Standard Test Method for One-Dimensional Swell or Settlement Potential of Cohesive Soils	ASTM D 4546, AASHTO T 216	\$300.00
	Soil Stabilization	using fly ash, cement and lime to stabilize soils	NA	call for quote
	For any soils and aggregate lab testing not listed please call for quote			
Concrete and Masonry	Laboratory Compressive Strength of Cylinders	Curing, Storing and Testing (Pad Capping) 6" x 12" cylinders	ASTM C 39	\$12.50
	Laboratory Compressive Strength of Cylinders	Curing, Storing and Testing (Pad Capping) 4" x 8" cylinders	ASTM C 39	\$11.00

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Laboratory Materials Testing Services (please call for unlisted items)

Category	Name of Test	Description	Relevant ASTM and AASHTO	Unit Rate
Concrete and Masonry	Laboratory Flexural Strength of Beams (per beam)	Curing, Storing and Testing 6" x 6" x 18" beams	ASTM C 78	\$35.00
	Laboratory Compressive Strength of drilled cores	Curing, Storing and Testing (sulfur Capping)	ASTM C 42, ASTM C 39	\$35.00
	Saw cutting cylinders and drilled cores	Saw cutting ends of contractor formed cylinders to achieve a perpendicular surface (per end)	NA	\$5.00
	Petrographic Analysis	Microscopic analysis of hardened concrete	ASTM C 457	Call for Quote
	Laboratory Compressive Strength of Grout Prisms	Curing, Storing and Testing (Pad Capping) 6" x 3" x 3" prisms	ASTM C 1019	\$25.00
	Laboratory Compressive Strength of mortar cubes	Curing, Storing and Testing (Pad Capping) 2" x 2" x 2" cubes	ASTM C 109	\$25.00
	Laboratory testing of concrete masonry units	This test methods provides various testing procedures commonly used for evaluating characteristics of concrete masonry units and related concrete units.	ASTM C 140	\$120.00
Asphalt	Laboratory testing of Asphalt Cores	Laboratory Testing of asphalt cores for specific gravity (density)	AASHTO T-166	\$35.00
Fireproofing	Laboratory Density of Fireproofing (each density)	Laboratory determination of SRFM density	ASTM E 605	\$60.00

Project Name: Verdigris River WTP PTB Expansion
 Project Location: 6670 S. 361st St., Broken Arrow, OK 74014
 Prime Contractor: Walters-Morgan Construction, Inc.

Project Number: 218-09
 Contract Number: 175436
 Date: 10-15-2018

REQUEST FOR INFORMATION NO. # 005

FROM:

Name: Jim Perkins **Title:** Project Manager **Company:** WMCI

Contact Information: jperkins@waltersmorgan.com; 785-539-7513 Ext. 110

Subject: 54 x48 Tee at SW Tie-In conflict with 16" SW line

Specification: Plans

Question:

When pot holing for verification of location/elevation of the 54'x48' SW Tee at South end of PT Basin Phase 1, a 16" SW line that is running to the Phase 1 PT Basin that is higher in elevation and close to on top of the 54" SW line at our future Tie-In location for Phase 2 Basin was discovered. What is the operational status of this line? Is it OK to remove this line back to the South of our Tie-In enough to allow for excavation for the Tie-In and potholing the line? If so and it is a dead line, does it need to be capped, plugged with concrete?

Proposed Resolution:

Remove line to the South to allow Tie-In and cap or plug existing 16" SW line. Cost associated would be the cost of 16" MJ cap & megalug, if required.

Estimated Cost Impact:

Estimated Schedule Impact:

REPLY TO CONTRACTOR:

DATE ANSWERED: 10-22-2018

Remove above grade and buried section of pipe as required to accommodate pipe tie-in to the existing tee. Provide MJ cap and Megalug as proposed.

Todd Townsend 10/22/2018

Provide costs in cost change proposal formatting for costs of required work. TR 10/23/18

Per the Contract General Conditions, the Contractor shall not proceed with additive or deductive work which has change order implications as a result of this RFI without prior written approval from the City of Broken Arrow.

Construction Manager Recommendation

Contractor Concurrence

Name Timothy Robins, PE

Name Jim Perkins

Timothy S Robins, PE
Digitally signed by Timothy S Robins, PE
 Date: 2018.10.23 14:09:30 -05'00'

Signature

Date

Signature

10/15/2018

Date

CHANGE PROPOSAL NO. 2

WALTERS-MORGAN CONSTRUCTION, INC.
 WATER TREATMENT PLANT IMPROVEMENTS
 VERDIGRIS RIVER WTP - PRETREATMENT BASIN

REFERENCE RFI #5
 ENGINEER # 10060891
 OWNER # 175436

JOB NO. 218-09
 DATE 20-Nov-18

DESCRIPTION: Remove 16" line conflicting with existing 48" SW and cap. Remove line below grade and cap to allow connection to existing SW line. Remove above grade piping up existing basin wall.

Item Description	Qty	Unit	Labor Unit \$	Labor Total	Mat Unit \$	Mat Total	Sub Unit \$	Sub Total	Equip Unit \$	Equip Total	Total
Pipe Cap & Megalug	1	lsum	0.00	0.00	411.53	411.53	0.00	0.00	0.00	0.00	411.53
Remove above/below grade pipe and Cap below grade	1	lsum	537.00	537.00	0.00	0.00	0.00	0.00	125.00	125.00	662.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		ea	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Direct Cost Subtotals \$537.00 \$411.53 \$0.00 \$125.00 \$1,073.53

Payroll Taxes, Insurance and Benefits (41%) \$220.17 \$220.17

SUBTOTAL with PT&I \$1,293.70

Contractor's Fee (15%) \$161.03

Fee on Subcontractor (5%) \$0.00

SUBTOTAL INCLUDING FEE \$1,454.73

Jobsite G&A Expense on Adds (6.5%) \$94.56

SUBTOTAL W/O BOND \$1,549.29

Bonds & Insurance (1.2%) \$18.59

CHANGE TOTAL WITH BOND \$1,567.88

ADDITIONAL TIME REQUESTED: Zero (0) Calendar Days



FERGUSON WATERWORKS #1895
 1820 N. WILLOW AVE
 BROKEN ARROW, OK 74012-9169

Phone: 888-637-3505
 Fax: 918-459-9540

Deliver To: . From: Austin Riley Comments:
--

11:58:56 OCT 30 2018

FEI-WW BROKEN ARROW #1895
 Price Quotation
 Phone: 888-637-3505
 Fax: 918-459-9540

Bid No: B321949
Bid Date: 10/30/18
Quoted By: ARX

Cust Phone: 785-539-7513
Terms: NET 10TH PROX

Customer: BAMA
 C/O WALTERS MORGAN CONSTR
 2616 TUTTLE CREEK BLVD
 218-09 VERDIGRIS RIVER WTP
 MANHATTAN, KS 66502

Ship To: WALTERS-MORGAN CONSTRUCT
 6670 S 361ST ST
 .
 VERDIGRIS RIVER WTP
 BROKEN ARROW, OK 74014

Cust PO#: 1

Job Name: 218-09 VERDIGRIS RIVER WTP

Item	Description	Quantity	Net Price	UM	Total
MJSCAPLA16	16 MJ C153 SLD CAP L/A	1	172.123	EA	172.12
SSLCEP16TT	16 PVC REST PK *ONELOK W/ BLUE BLT	1	239.410	EA	239.41
Net Total:					\$411.53
Tax:					\$0.00
Freight:					\$0.00
Total:					\$411.53

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.

CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at http://wolseley.com/terms_conditionsSale.html.
 Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with *NP in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.