

Airport Name: Columbia Regional Airport
 Project No.: RFQ 160-2020
 County: Boone

**AVIATION PROJECT CONSULTANT SUPPLEMENTAL AGREEMENT NO. 1
 CONSTRUCTION SERVICES**

THIS SUPPLEMENTAL AGREEMENT NO. 1 for Construction Services is entered into by the City of Columbia, Missouri (hereinafter, "Sponsor") and BURNS & MCDONNELL ENGINEERING COMPANY, INC. (hereinafter "Consultant") is made as of the date of the last signatory noted below.

WITNESSETH:

WHEREAS, the Sponsor and the Consultants entered into an Agreement on, to accomplish a project at the Columbia Regional Airport related to the design of Taxiway A Reconstruction South of Runway 13-31, (hereinafter "Original Agreement"); and

WHEREAS, the Sponsor and the Consultant now desire to enter into Supplemental Agreement No. 1 to otherwise complete, extend or continue the Original Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual promises, covenants, and representations contained herein the parties agree as follows:

(1) **SCOPE OF SERVICES:**

(A) The services to be provided by the Consultant under Supplemental Agreement No. 1 are additional services which are beyond the scope of services provided in the Original Agreement. These additional professional services are generally described and defined in Section (17)(Federal) of the Original Agreement and Exhibit II – SA1, which is attached hereto and incorporated herein by reference.

(2) **FEES AND PAYMENTS:**

(A) The Consultant shall be reimbursed in accordance with Section (9)(Federal) of the Original Agreement.

(B) The costs of Supplemental Agreement No. 1 shall be in addition to the cost of the Original Agreement.

(C) The lump sum fee and maximum amount payable included in Section (9)(Federal) of the Original Agreement are hereby modified to be cost plus fixed fee not to exceed as follows:

Max. Fee Payable	ORIGINAL AMOUNT	SUPPLEMENTAL AGREEMENT NO. 1	TOTAL
Fixed Fee	\$15,069.78	\$26,737.10	\$41,806.88
Lump Sum	\$198,605.24	N/A	\$198,605.24
Max. Fee Payable	\$198,605.24	\$355,300	\$553,905.24

(D) Estimated costs for the services in Supplemental Agreement No. 1 are defined in Exhibit IV – SA1 and Exhibit V – SA1, which are attached hereto and incorporated by reference.

(3) PERIOD OF SERVICE: Exhibit VI, Performance Schedule, of the Original Agreement is hereby revised to include time for the performance of these additional services. The total time to be added to Exhibit VI for completion of these additional services shall be two hundred fifty-five (255) calendar days. The projected completion date shown on Exhibit VI is now revised to 255 calendar days after the Sponsor issues a Notice to Proceed to the selected Construction Contractor, which includes time for performance of all remaining services in the Original Agreement and the services in Supplemental Agreement No. 1 and submittal of all deliverables.

(4) DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS:

(A) DBE Goal: The following DBE goal has been established for this Supplemental Agreement No. 1. The dollar value of services and related equipment, supplies, and materials used in furtherance thereof which is credited toward this goal will be based on the amount actually paid to DBE firms. The goal for the percentage of services to be awarded to DBE firms is 9.60% of the total Supplemental Agreement No. 1 dollar value.

(C) 10 DBE Participation Obtained by Consultant: The Consultant has obtained DBE participation, and agrees to use DBE firms to complete 9.60% of the total services to be performed under this Supplemental Agreement No. 1 by dollar value. The DBE firms which the Consultant shall use, and the type and dollar value of the services each DBE will perform, is as follows:

DBE FIRM NAME, STREET AND COMPLETE MAILING ADDRESS	TYPE OF DBE SERVICE	TOTAL \$ VALUE OF THE DBE SUBCONTRACT	CONTRACT \$ AMOUNT TO APPLY TO TOTAL DBE GOAL	% OF SUBCONTRACT \$ VALUE APPLICABLE TO TOTAL GOAL
TSi Geotechnical Engineering	Materials Testing	\$22,860.50	\$22,860.50	6.40%
TREKK Design Group, LLC	Construction Observation	\$11,579.00	\$11,579.00	3.20%

(5) SUBCONSULTANTS:

(A) The Consultant agrees that except for those firms and for those services listed below, there shall be no transfer of engineering services performed under this Supplemental Agreement No. 1 without the written consent of the Sponsor. Subletting, assignment, or transfer of the services or any part thereof to any other corporation, partnership, or individual is expressly prohibited. Any violation of this clause will be deemed cause for termination of this Supplemental Agreement No. 1.

Exceptions (Subconsultant Information):

FIRM NAME	COMPLETE ADDRESS	NATURE OF SERVICES
TSi Geotechnical, Inc.	1340 North Price Road St. Louis, MO 63132	Materials Testing
TREKK Design Group, LLC	1411 E 104 th Street Kansas City, MO 64131	Construction Observation

(6) ORIGINAL AGREEMENT: Except as otherwise modified, amended, or supplemented by the Supplemental Agreement No. 1, the Original Agreement between the parties shall remain in full force and effect and the terms of the Original Agreement shall extend and apply to this Supplemental Agreement No. 1.

IN WITNESS WHEREOF, the parties have entered into this Supplemental Agreement No. 1 on the date last written below.

Executed by the Consultant this 4TH day of MAY, 2022

Executed by the Sponsor this _____ day of _____, 2022

CITY OF COLUMBIA, MISSOURI

By: _____
De'Carlton Seewood, City Manager

(Signature)
5/4/22

Date: _____

ATTEST:

By: _____
Sheela Amin, City Clerk

APPROVED AS TO FORM:

By: _____
Nancy Thompson, City Counselor

CERTIFICATION: I, hereby certify that this contract is within the purpose of the appropriation to which it is to be charged, Account Number 55416288-604023, AP139 and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: _____
Matthew Lue, Finance Director

Burns and McDonnell Engineering Company, Inc

By: *(Signature)*
Ryan B. Lorton, Project Manager

Date: 5/4/2022

ATTEST:

By: *(Signature)* 05/04/2022
Thomas Dowse, Project Manager

EXHIBIT II - SA1
SCOPE OF SERVICES

EXHIBIT "A"
MARCH 2, 2022
SCOPE OF BASIC SERVICES
FOR PROFESSIONAL ENGINEERING SERVICES
FOR
CONSTRUCTION PHASE SERVICES FOR THE RECONSTRUCT TAXIWAY A
SOUTH OF RUNWAY 13-31
AT COLUMBIA REGIONAL AIRPORT
AIP NO. 3-29-0022-54

A. PROJECT NAME AND DESCRIPTION OF IMPROVEMENTS:

1. **Project Name:** Construction Services for the Taxiway A Reconstruction South of Runway 13-31 (960' x 50') at the Columbia Regional Airport (COU).
2. **Description of Improvements:** The proposed improvements are shown on EXHIBIT No. 1. The Engineer will perform construction observation services for the Taxiway A Reconstruction (960' x 50') and associated improvements.

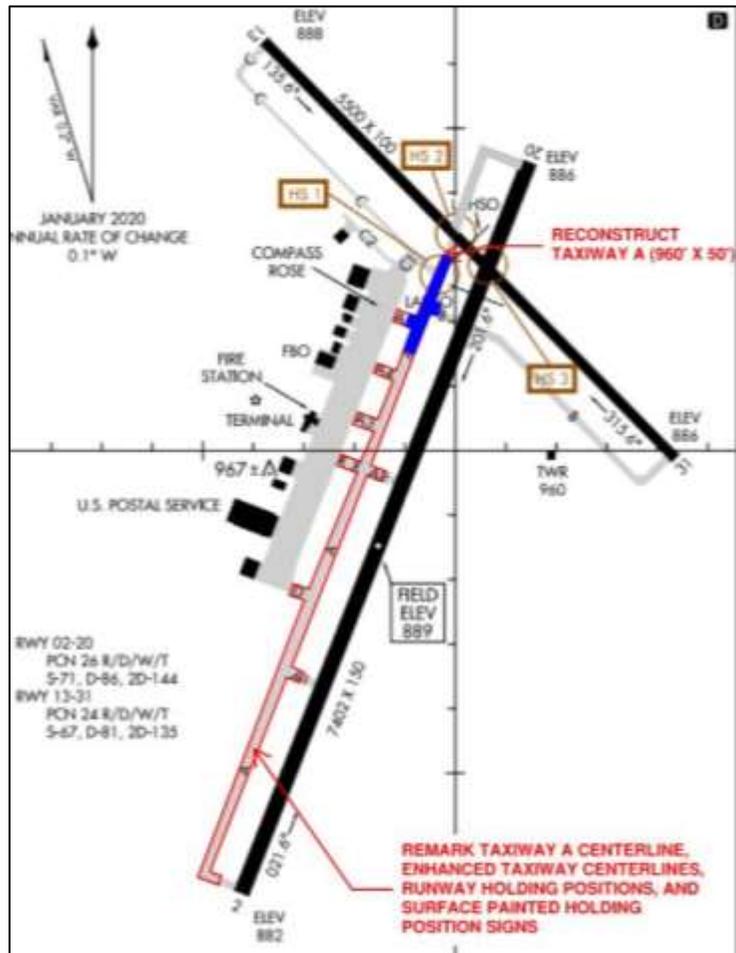


Exhibit No. 1

B. DESCRIPTION OF SERVICES TO BE PERFORMED:

Consultant has developed the following Scope of Services to perform engineering services for the aforementioned project. The Scope of Services is defined as follows:

1. **Construction Phase Services Assumptions:**

The following assumptions have been established for construction phase services:

- a. The project duration anticipated to start in the summer of 2022, as identified in the Project Manual and Drawings (Contract Documents) indicating the project is to be completed within 105 calendar days from the Contractor's Notice to Proceed.

2. **Construction Administration Services – Office Staff:**

- a. Develop a Construction Observation Program, (COP). This document will outline the general responsibilities of the Sponsor, the Federal Aviation Administration (FAA), Consultant and Construction Contractor. The document will be developed in accordance with FAA's Section 1030 – Construction Observation Program. As a minimum, the COP will include the following items:
 1. Name of the person representing the Sponsor who has overall responsibility of contract administration for the project and the authority to take necessary actions to comply with the contract.
 2. Names of testing laboratories and a certificate of accreditation, indicating proficiency in specific test standards.
 3. Names of other engineering firms with quality assurance responsibilities for the project including a description of the services to be provided by each firm.
 4. Listing of qualifications for the Consultant's management team including; Project Manager, site observers, laboratory personnel, and testing personnel.
 5. Listing of all tests required by the contract specifications, including the type and frequency of tests to be taken, the method of sampling, the applicable test standard, and the acceptance criteria or tolerances permitted for each type of test.
 6. Procedures for confirming that:
 - (a) Tests are taken in accordance with the approved construction observation program.
 - (b) Tests are documented properly.
 - (c) Corrective actions/retesting are taken for failed tests.
 - (d) Mix designs meet project specifications and Consultant's approval is properly documented.
 - (e) Quality and quantity of materials meet project requirements.
- b. Attend and chair one (1) preconstruction meeting with the Contractor, Sponsor, and the FAA to determine detailed project requirements, budget, schedule, phasing and other pertinent matters. This meeting will be attended

by the Consultant's Project Manager, and Construction Services Team. The preconstruction conference will comply with FAA Central Region, AIP Sponsor Guide, Section 1040. Meeting minutes will be prepared by the Consultant and distributed to the contact for each attending company.

- c. Provide coordination with the Sponsor to issue a Notice to Proceed to comply with the FAA Central Region, AIP Sponsor Guide, Section 1050. A copy of the Notice to Proceed and contractor final schedule will be forwarded to the FAA.
- d. Perform shop drawing reviews, material certifications and "Buy American" verifications as received from the Contractor. The Consultant estimates 25 original shop drawings will be reviewed. It is assumed 25% of the initial submittals will need to be resubmitted by the contractor and re-reviewed by the Consultant. It is assumed 4-hours per review (includes administrative processing). As a result, 31 shop drawings are estimated for a total of 124 hours.
- e. Prepare and provide four copies of the Construction Plans and Project Manual for use by the Contractor during construction.
- f. Respond to field issues throughout the duration of the project (105 calendar days – approximately 15 weeks). It is assumed this effort will require 10 hours per week for 15 weeks equating to 150 hours.
- g. Coordinate and review monthly pay estimates and weekly progress reports (field diaries, weather reports, labor reports and equipment reports) as received from the Resident Representative.
- h. Coordinate and prepare change orders and supplemental agreements for the duration of the project. This effort assumes 2 of these efforts at 8 hours per effort for a total of 16 hours. These documents will comply with FAA Central Region, AIP Sponsor Guide, Section 1080.
- i. Coordinate and review weekly test reports.
- j. Project Management: Consultant will provide project management for all phases of construction services throughout the duration of the project. This effort is assumed to require 5 hours per week for a project duration of 15 weeks for a not to exceed total of 75 hours.
- k. Procure DBE material testing and DBE construction observation assistance contracts and scopes of work.
- l. Project Manager to attend weekly progress meetings in person.

3. **Construction Phase Services – (105 calendar days):**
- a. Provide a Senior Resident Representative, (SRR) on site for 90 working days for 10 hours per day not to exceed a duration of 900 hours. The SSR will be responsible for the following reporting:
 - i. Weekly Reports on FAA Form 5370-1: Tests reports including types of tests taken, applicable standards, location of tests, tests results (highlighting those tests which fail specification requirements), provisions for failed tests, and specification requirements shall be recorded and filed in a timely and orderly manner and shall be made available for review by the Sponsor and the FAA. A photo log showing the progress of the project will also be included. The weekly Reports will be submitted on a weekly basis to the Sponsor and the FAA.
 - ii. Final Report: At the conclusion of the project, the Consultant shall submit a final test and quality control report documenting the results of all tests performed. Those tests that failed or did not meet the applicable test standard shall be highlighted and corrective action/retesting noted. The reports shall include the pay reductions applied and justification of accepting any out-of-tolerance materials.
 - b. Perform periodic site visits from the design team members for the following activities:
 - (1) Trip No. 1: Observe Mobilization. This trip will be taken for the purposes of observing the contractor’s start-up activities and general coordination with the Sponsor and contractor. It is assumed that this site visit will be combined with a weekly meeting trip.
 - (2) Trip No. 2: Observe demolition operations. It is assumed that this site visit will be combined with a weekly meeting trip.
 - (3) Trip No. 3: Observe the initial placement of P-158 operations. The duration of this trip will be 8 hours.
 - (4) Trip No. 4: Observe the initial placement of P-209 operations. The duration of this trip will be 8 hours.
 - (5) Trip No. 5: Observe the initial placement of P-307 operations. The duration of this trip will be 8 hours.
 - (6) Trip No. 6: Observe the initial placement of choke stone layer. The duration of this trip will be 8 hours.
 - (7) Trip No. 7: Concrete Placement. This trip will be used to observe and assist the Resident Representative on the first day of concrete placement.

- (8) Trip No. 8: Airfield Lighting Installation. This trip will be used to observe the installation of the airfield lighting system. The duration of this trip will be 8 hours.
 - (9) Trip No. 9: Pre-Final Punch List. The Consultant will prepare the pre-final project punch list. This trip will be performed by the team's project manager and project electrical engineer. The duration of this trip will be 8 hours per each team member. The total hours allocated for this effort will not exceed 16.
4. **Construction Closeout:** This includes activities for providing a final project walk through, project closeout documentation and creating a record set of drawings conforming to construction records drawings. The specific elements of work include:
- a. Final Project Punch List and Walk Through: The Consultant will prepare the Final project punch list. A final walk through will be performed by the Sponsor, the FAA (if available) and members of the Consultant's Team.
 - b. Engineering Record Drawings: The Consultant will prepare the Conforming to Construction Record drawings of the project. These drawings will be developed from documentation created by the Contractor and Consultant throughout the duration of the project. An electronic (pdf) set of drawings will be provided to the Sponsor and the FAA for their records.
 - c. Final Construction Report: The Consultant will prepare and submit to the Sponsor and the FAA a final construction report in accordance with the FAA Central Region, Airport Sponsor Guide, Section 1610, Development Project Closeout. DBE Compliance Report Coordination: Assistance to City staff as required to provide project documentation for DBE Compliance during project closeout. These documents will be provided to the FAA within 90 calendar days after project final acceptance.
 - d. Prepare and submit an updated signage and pavement marking plan. A copy will also be forwarded to the FAA 139 Inspector.
5. **Subconsultant Material Testing (DBE):** The Consultant will provide, through the services of a certified and accredited material testing laboratory DBE subconsultant, all quality assurance testing in accordance with the Contract Documents.
6. **Subconsultant Construction Observation Services (DBE):** The DBE subconsultant will provide construction observation support during concrete paving operations.

C. ESTIMATED TIME OF COMPLETION:

1. The time to complete the Scope of Services for items identified in Section B of this Scope of Work is estimated at Two Hundred Fifty-Five (255) calendar days from the Construction Contractor's Notice to Proceed.

END OF SOW

EXHIBIT IV – SA1

DERIVATION OF CONSULTANT PROJECT COSTS

EXHIBIT IV SUMMARY

DERIVATION OF CONSULTANT PROJECT COSTS
 SUMMARY OF COSTS
 RECONSTRUCT TAXIWAY A SOUTH OF RUNWAY 13-31
 C-Services for Reconstruct Taxiway A South of Runway 13-31
 Columbia Regional Airport
 BASIC & SPECIAL SERVICES
 March 2, 2022

1 DIRECT SALARY COSTS

TITLE	HOURS	RATE/HR	COST (\$)		
			Office	Field	Contract
Principal	11.00	\$ 70.00	\$ 770.00	\$ -	\$ -
Project Manager	212.00	\$ 56.00	\$ 11,872.00	\$ -	\$ -
Sr. Civil Engineer	312.00	\$ 45.00	\$ 14,040.00	\$ -	\$ -
Staff Civil Engineer	28.00	\$ 39.00	\$ 1,092.00	\$ -	\$ -
Sr. Electrical Engineer	66.00	\$ 54.00	\$ 3,564.00	\$ -	\$ -
Staff Electrical Engineer	62.00	\$ 44.50	\$ 2,759.00	\$ -	\$ -
Sr. Technician	12.00	\$ 35.00	\$ 420.00	\$ -	\$ -
Staff Technician	28.00	\$ 30.00	\$ 840.00	\$ -	\$ -
Resident Project Representative	912.00	\$ 50.00	\$ 45,600.00	\$ -	\$ -
Clerical	102.00	\$ 21.00	\$ 2,142.00	\$ -	\$ -
Total Hours	1,745.00				
Total Direct Salary Costs			\$ 83,099.00	\$ -	\$ -

2 LABOR & GENERAL ADMINISTRATIVE OVERHEAD

a. Percentage of Direct Salary Cost: (Office Rate)	221.75%	\$ 184,272.03			
b. Percentage of Direct Salary Cost: (Field Rate)	188.24%		\$ -		
c. Percentage of Direct Salary Cost: (Contract Employee Rate)	0.00%			\$ -	
d. FCCM Rate (Optional)	0.00%	\$ -	\$ -	\$ -	

3 SUBTOTAL

Summary of Items No. 1 and No. 2 (a,b,c): \$ 267,371.03 \$ - \$ -

4 PROFIT/FIXED FEE:

Percentage: 10.00% \$ 26,737.10 \$ - \$ -

5 SUBTOTAL

Summary of Items No. 1, No. 2 & No. 4: (Lump Sum Fee) \$ 294,108.14 \$ - \$ -

EXHIBIT IV SUMMARY

DERIVATION OF CONSULTANT PROJECT COSTS
 SUMMARY OF COSTS
 RECONSTRUCT TAXIWAY A SOUTH OF RUNWAY 13-31
 C-Services for Reconstruct Taxiway A South of Runway 13-31
 Columbia Regional Airport
 BASIC & SPECIAL SERVICES
 March 2, 2022

6 OUT OF POCKET EXPENSES

OFFICE	No. of Units	Units	Cost/Unit					
Travel: Mileage	9,660.00	Miles	\$ 0.585	\$	5,651.10			
Food: Per Diem	120.00	Per Day	\$ 51.00	\$	6,120.00			
Lodging: Per Diem (incl. taxes)	105.00	Per Day	\$ 104.13	\$	10,933.65			
Printing, Shipping & Misc.				\$	2,649.20			
Subtotal				\$	25,353.95	\$	-	\$ -
FIELD	No. of Units	Units	Cost/Unit					
Printing, Shipping & Misc.						\$	1,398.41	\$ -
Subtotal				\$	-	\$	1,398.41	\$ -
Summary of Out of Pocket Expenses: (Not to Exceed)				\$	25,353.95	\$	1,398.41	\$ -

7 SUBCONSULTANTS

Material Testing: TSi				\$	-	\$	-	\$ 22,860.50
Construction Observation Services: TREKK				\$	-	\$	-	\$ 11,579.00
Subtotal (Not to Exceed)				\$	-	\$	-	\$ 34,439.50

8 MAXIMUM TOTAL FEE

Subtotal				\$	319,462.09	\$	1,398.41	\$ 34,439.50
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TOTAL (Not to Exceed)	\$	355,300.00
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EXHIBIT IV SUMMARY



1340 North Price Road
St. Louis, MO 63132
314.373.4000 T
314.227.6622 F

www.tsigeotech.com

January 25, 2022

Ryan Lorton
BURNS & McDONNELL
9400 Ward Parkway
Kansas City, MO 64114

RE: Material Testing Services
Columbia Airport – Reconstruction of Taxiway A
Columbia, Missouri
TSI Proposal No. SLM22005.00

Dear Mr. Lorton:

TSi Geotechnical Inc. (TSi) a certified **WBEMBE/DBE** firm, is pleased to present the following proposal to Burns and McDonnell to provide material testing services during the Reconstruction of Taxiway A at Columbia Airport in Columbia, Missouri. TSi understands the testing services will be related to soil, aggregate, and concrete. Services for this work will be coordinated being between TSi's St. Louis office and a designated representative from Burns & McDonnell. TSi understands the project consists of construction of 7,600 SY of new Taxiway.

SCOPE OF SERVICES

We propose to provide construction observation soil and material testing services for the new construction. The following are construction testing services that we anticipate will be performed during the construction phase of the project:

- Evaluate earth fill and crushed stone aggregates to be used as fill and/or backfill. This evaluation would include obtaining proctor samples for the performance of modified Proctor tests in accordance with ASTM D 1557.
- Observe the placement of earth fill and backfill, or crushed stone aggregate, and test for in-place density using a nuclear moisture density gauge (ASTM D 6938) to assess the degree of compaction being obtained.
- During placement of Cement Treated Permeable Base, obtain (2) 6x12 cylinders of material per 1000 SY placed for purpose of testing for compressive Strength.
- Perform quality control tests on concrete delivered to the project site. This would include slump (ASTM C 143), air entrainment (ASTM C 173 or C 231), temperature test (ASTM C 1064), and preparation of test Beams (ASTM C 31. One set of (2) beams will be cast per subplot, (4) sublots per Lot, (1) Lot per days placement. TSi

PROFESSIONAL SERVICES SINCE 1989

PROPOSAL FOR CONSTRUCTION MATERIALS TESTING

Columbia Airport – Reconstruction of Taxiway A

January 25, 2022

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will also perform concrete flexural strength tests (ASTM C 78) on test beams made in the field.

- At the completion of the project, a closeout letter will be prepared summarizing all testing results for the project.

COMPANY INFORMATION

Founded in 1989, TSi Geotechnical, Inc. (M/W/DBE) is a specialized practice in geotechnical engineering, drilling, construction observation and materials testing. TSi provides soil and foundation studies for buildings, bridges, retaining walls, and other structures, and to provide geotechnical consulting engineering services for new dams, roadways, slope stability assessments, seismic analysis and mine subsidence studies. TSi also performs laboratory testing, field-testing and construction observation and testing related to foundation construction, earthwork, concrete, asphalt, aggregates and other construction materials.

TSi's construction observation and materials testing department is professional and well trained in many aspects of construction services. Our capabilities include, but are not limited to:

- Observing fill placement and measuring the level of compaction
- Observing the construction of shallow and deep foundations, including examining the bearing materials for drilled piers and piles.
- Installing instrumentation and monitoring the settlement of fill materials
- Performing field tests on aggregate, concrete, asphalt, steel and masonry materials.
- Coring concrete and asphalt to obtain samples for testing.

TSi takes pride in our commitment to safety and our safety program. This program is a top priority for TSi. We actively encourage safety consciousness, expecting everyone to be cautious while working at TSi. It is our responsibility to make a safe work environment for our employees and we take this responsibility seriously.

In general, both TSi's total staff and local office minority staff should account for about 60% of our fee and women about 6%. The women will be a part of the minority staff.

PROPOSAL FOR CONSTRUCTION MATERIALS TESTING

Columbia Airport – Reconstruction of Taxiway A

January 25, 2022

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DOCUMENTATION

TSi will document data and pertinent observations made in the field using our reporting software. Concrete Test Reports will be prepared for each set of cylinders and beams tested in our laboratory. After office review and approval, final copies of field and laboratory reports will be sent to Burns & McDonnell and designated parties involved in the project. At the conclusion of the project a summary letter including all project test results will be prepared and sent to Burns & McDonnell.

ASSUMPTIONS/CLARIFICATIONS

In preparing this scope of services and cost estimate, TSi has made the following assumptions:

1. It is assumed that TSi will not be required to perform a mix design for the Fly Ash Treated Subgrade. If requested, pricing for this work can be provided.
2. It is assumed that the entire Phase 2 area will have the subgrade treated at once, and will be performed over 2 days.
3. For purpose of estimate it is assumed that the P-307 will be placed a day or so prior to concrete placement, and not poured all at once.
4. Due to actual schedule during construction, actual number of trips to perform the aforementioned scope of work could vary.

FEE

We propose to perform the field, laboratory, and supervisory services on a time and expense basis in accordance with the attached Summary of Unit Rates, Special testing or personnel required that are not included in the attached Summary of Unit Rates would be billed in accordance with the Schedule of Fees in effect at the time services are performed.

TSi estimates the cost associated with the construction and materials testing services to be \$ 22,860.50. This estimate is based on information provided by Burns & McDonnell via email on January 19, 2022. TSi has estimated approximately 20 trips to perform the previously described scope of services. A breakdown of cost is included in the attached Summary of Time and Materials Estimate. If additional trips greater than the estimated 20 are required, then additional charges will incur above the previously estimated dollar amount. This cost estimate is based only upon initial testing. Retests of failed areas will be performed in accordance with the attached Summary of Unit Rates.

PROPOSAL FOR CONSTRUCTION MATERIALS TESTING
Columbia Airport – Reconstruction of Taxiway A
January 25, 2022
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ACCEPTANCE

If this proposal meets your approval, please formally authorize the material testing and inspection services previously described by signing the acceptance at the end of this proposal and returning one copy to our office.

We appreciate this opportunity to be of service to the Burns & McDonnell and look forward to working with you on this project. If you have any questions or would like to discuss any aspect of this proposal, please contact us at 314 373.4052.

Sincerely,

TSI GEOTECHNICAL, INC.



Andrew DeClue P.E.
Manager of Construction Services



Denise B. Hervey P.E.
Principal

Attachments: Statement of Terms and Conditions
Summary of Unit Rates
Summary of Time and Materials Estimate

Accepted by:

BURNS & MCDONNELL

Printed Name

Date

Signature

Title

Note: The contents of this proposal are confidential and shall not be distributed to any person(s) other than those for whom this proposal was intended.



TERMS AND CONDITIONS

To assure an understanding of matters related to our mutual responsibilities, these terms and conditions for professional engineering services are made a part of the agreement for the TSi Geotechnical, Inc. (Engineer) services, as described in a separate proposal to the Client:

AMENDMENTS

This agreement may be amended in writing providing both the Client and Engineer agree to such modifications.

COMPENSATION FOR ENGINEERING SERVICES

The basis for compensation will be as identified in the proposal.

- When "Lump Sum" payment is utilized, it shall include all labor and expenses (for the scope of work as defined in the proposal) incurred by the Engineer and shall not exceed the fixed payment amount without prior authorization of the Client.
- When "Time and Materials" is utilized, it shall be computed by a multiplier factor times salary cost plus reimbursable expenses.
 - The "Salary Costs" means the direct labor and wages paid to all engineering personnel engaged directly on the work plus the cost of customary and statutory benefits including social security contributions, unemployment, health, sick leave, vacation, Workmen's Compensation, incentive and holiday pay applicable thereto.
 - "Reimbursable Expenses" means the actual expenses incurred directly or indirectly in connection with the work including but not limited to the following: Transportation and subsistence, toll telephone calls, telegrams, reproduction or printing, computer time and outside consultants.
 - The "Multiplier" is a factor for general direct overhead, indirect costs, profit and other costs. The Multiplier factor rate shall be identified in the agreement.

TIME OF PAYMENT

The Engineer may submit monthly invoices for services and expenses based upon the proportion of the actual work completed at the time of billing. Unless provided for otherwise, payments for engineering services will be due and payable thirty (30) calendar days from the date of the Engineer's invoice.

LATE PAYMENT

If the Owner fails to make any payment due the Engineer for services and expenses within sixty (60) days, a service charge of 1.5 % per month will be added to the Client's invoice. This is an annual rate of 18 %.

WAIVER OF SUBROGATION

To the extent damages are covered by property insurance during construction, Client and Engineer waive all rights against each other and against the Owner, Client, Engineer, contractors, consultants, subconsultants, agents and employees of the other for damages, except such rights as they may have to the proceeds of such insurance. Engineer Client, or Owner, as appropriate, to the extent as allowed by law, shall require of the Contractor, other consultants, subcontractors, agents and employees of any of them similar waivers in favor of the other parties enumerated herein.

LIMITATION OF LIABILITY

In recognition of the relative risks and benefits of the Project to both the Client and the Engineer, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit Engineer's liability to Client on the project for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, including, but not limited to,



LIMITATION OF LIABILITY, Continued

claims of negligence, breach of contract, negligent errors or omissions, negligent misrepresentation or any other tort or contract theory, arising out of the work performed for Client or the Owner and for which legal liability may be found to rest upon Engineer, so that the total aggregate liability of the Engineer to Client shall not exceed \$50,000.00, or Engineer's total fee for services on the Project, whichever is greater. Additional limits of liability may be negotiated and made a part of this Agreement for an additional fee. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

Notwithstanding any other provision in this Agreement, and to the fullest extent permitted by law, neither the Client nor the Engineer, their respective officers, directors, partners, employees, contractors or subconsultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the Project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, delay damages, loss of reputation or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranties. Both Client and Engineer shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in the project.

Limitations on liability, waivers and indemnities in this Agreement are business understandings between the parties and shall apply to all legal theories of recovery, including breach of contract or warranty, breach of fiduciary duty, tort (including negligence), strict or statutory liability, or any other cause of action, provided that these limitations on liability, waivers and indemnities will not apply to any losses or damages that may be found by a trier of fact to have been caused by the Engineer's gross negligence or willful misconduct. The parties also agree that Client will not seek damages in excess of the contractually agreed-upon limitations set forth above, either directly or indirectly through suits against other parties who may join the Engineer as a third-party defendant, and that this limitation of liability provision shall not be read to conflict with the indemnity or insurance provisions of this Agreement.

TERMINATION

Either party may terminate this agreement upon written notice. Any termination shall only be for good cause such as for legal, unavailability of adequate financing or major changes in the work. In the event of any termination, the Engineer will be paid for all services and expenses rendered to the date of termination on a basis of salary cost times a multiplier of 2.55 (if not previously provided for) plus reimbursable expenses, plus reasonable termination costs.

REUSE OF DOCUMENTS

All documents including drawings and specifications furnished by Engineer pursuant to this Agreement are instruments of these services with respect to the work. They are not intended or represented to be suitable for reuse by Client or others on extensions of this work, or on any other work. Any reuse without specific written verification or adaptation by Engineer will be at Client's sole risk, and without liability of Engineer, and Client shall indemnify and hold harmless engineer from all claims, damages, losses and expenses including attorneys fees arising out of or resulting there from. Any such verification or adaptation will entitle engineer to further compensation at rates to be agreed upon by Client and Engineer.

ESTIMATES OF COST FOR CONSTRUCTION PROJECTS

Since the Engineer has no control over the cost of labor, materials or equipment or over a Contractor(s) method of determining prices, or over competitive bidding or market conditions, his opinions of probable Project Cost or Construction Costs that may be provided for herein are to be made on the basis of his experience and qualifications and represent his best judgment as a design professional familiar with the construction industry, but Engineer cannot and does not guarantee that proposals, bids or the construction cost will not vary from opinions of probable cost prepared by him.

Summary of Unit Rates [2022]
Columbia Airport – Reconstruction of Taxiway A
Columbia, Missouri

Personnel

Technician	\$ 48.00/hour
Project Manager	\$ 110.00/hour
Project Assistant	\$ 45.00/hour

*OT billed at 1.5 times normal rate

Equipment

Mileage	\$ 0.585/mile
Nuclear Gauge (ASTM D 6938)	\$ 25.00/ day
Thickness Checks	\$ 25.00/test
Per Diem	\$ 125.00/day
Concrete Equipment	\$ 25.00/day

Laboratory – Soils/Aggregates

Modified Proctor (ASTM D 1557) Method A/B	\$215.00/test
Modified Proctor (ASTM D 1557) Method C	\$225.00/test
Atterberg Limit (ASTM D 4318)	\$75.00/test
Moisture Content	\$ 8.00/test
Washed Sieve Analysis of Aggregate (ASTM C 117/136)	\$ 75.00/test
Gradation	\$ 90.00/test

Laboratory – Concrete

Compressive Strength Concrete Test Cylinder (ASTM C 39)	\$ 16.00/test
Flexural Strength of Concrete Beams (ASTM C78)	\$ 40.00/test
Concrete Unit Weights	\$ 25.00/test
Cylinder Molds	\$ 1.60/mold
Spare Cylinder not Tested	\$ 12.00/test

Summary Time and Materials Estimate
Columbia Airport - Reconstruction of Taxiway A
Columbia, Missouri

1/25/2022
page 1

Sample Pickup

1. Two (2) trip at five (5) hours to pick up bulk samples for Proctors.
2. If Fly ash is not available at time of sample p/u, it is assumed that the contractor will deliver fly ash to TSi off

Technician	10.00	hours	@	\$ 48.00	hour	\$ 480.00
Mileage	500.00	miles	@	\$ 0.58	mile	290.00
Modified Proctor (ASTM D1557)	2.00	tests	@	\$ 215.00	test	430.00
Modified Proctor (ASTM D1557)	1.00	tests	@	\$ 225.00	test	225.00
Atterburg Limit (ASTM D 4318)	2.00	test	@	\$ 75.00	Test	150.00
Gradation	1.00	test	@	\$ 90.00	Test	90.00
Moisture Content	3.00	test	@	\$ 8.00	Test	24.00
Project Manager	4.00	hours	@	\$ 110.00	hour	440.00
				Sub-Total		\$ 2,129.00

P-158

Assumptions:

1. Two (2) days onsite at nine (9) hours per day to test compaction of lime treated subgrade and to perform depth checks.
2. Technician to travel to area on first day and stay in area overnight and return to St. Louis the next day.

Technician	16.00	hours	@	\$ 48.00	hour	\$ 768.00
Technician, OT	4.00	hours	@	\$ 72.00	hour	288.00
Mileage	282.00	miles	@	\$ 0.58	mile	163.56
Nuclear density gauge	2.00	days	@	\$ 25.00	day	50.00
Per Diem	1.00	days	@	\$ 125.00	day	125.00
Depth Checks	2.00	days	@	\$ 25.00	day	50.00
Project Manager	6.00	hours	@	\$ 110.00	hour	660.00
Project Assistant	2.00	hours	@	\$ 45.00	hour	90.00
				Sub-Total		\$ 2,194.56

Summary Time and Materials Estimate
Columbia Airport - Reconstruction of Taxiway A
Columbia, Missouri

1/25/2022
page 2

P-206

Assumptions:

1. Three (3) trips at ten (10) hours per trip to test compaction of aggregate subgrade.

Technician	24.00	hours	@	\$ 48.00	hour	\$ 1,152.00
Technician, OT	6.00	hours	@	\$ 72.00	hour	432.00
Mileage	730.00	miles	@	\$ 0.58	mile	423.40
Nuclear density gauge	3.00	days	@	\$ 25.00	day	75.00
Project Manager	6.00	hours	@	\$ 110.00	hour	660.00
Project Assistant	2.00	hours	@	\$ 45.00	hour	90.00
					Sub-Total	\$ 2,832.40

P-307

Assumptions: Permeable base will be placed over 5 non-consecutive days.

1. Four (4) days onsite at ten (10) hours per day.
2. Two (2) 6x12 cylinders cast per 1000 square yards of base.
3. Technician to stay in area and return the next day with samples.

Technician	32.00	hours	@	\$ 48.00	hour	\$ 1,536.00
Technician, OT	8.00	hours	@	\$ 72.00	hour	576.00
Mileage	1,088.00	miles	@	\$ 0.58	mile	631.04
Test Cylinders, ASTM C 39	16.00	test	@	\$ 16.00	test	256.00
Cylinder Molds	16.00	molds	@	\$ 1.60	mold	25.60
Per Diem	4.00	days	@	\$ 120.00	day	480.00
Project Manager	8.00	hours	@	\$ 110.00	hour	880.00
Project Assistant	4.00	hours	@	\$ 45.00	hour	180.00
					Sub-Total	\$ 4,564.64

**Summary Time and Materials Estimate
Columbia Airport - Reconstruction of Taxiway A
Columbia, Missouri**

1/25/2022
page 3

P-501

Assumptions: Pavement will be placed over 5 non-consecutive days.

1. Five (5) days onsite at ten (10) hours per day.
2. Technician to travel to area day before pour and stay in area after pour and return the next day with cylinders.
3. One set of (2) beams cast per subplot, 4 sublots per Lot, 1 Lot poured per days placement.
4. One (1) trip to site twelve (12) hours to observe and obtain cores cut by contractor to verify thickness.

Technician	63.00	hours	@	\$	48.00	hour	\$ 3,024.00
Technician, OT	24.00	hours	@	\$	72.00	hour	1,728.00
Mileage	1,005.00	miles	@	\$	0.58	mile	582.90
Flexural Strength of Beams	40.00	test	@	\$	40.00	test	1,600.00
Unit Weights	40.00	tests	@	\$	25.00	test	1,000.00
Concrete Equipment	5.00	days	@	\$	25.00	day	125.00
Core Thickness Checks	20.00	test	@	\$	10.00	Test	200.00
Per Diem	10.00	days	@	\$	125.00	day	1,250.00
Project Manager	10.00	hours	@	\$	110.00	hour	1,100.00
Project Assistant	8.00	hours	@	\$	45.00	hour	360.00
						Sub-Total	\$ 10,609.90

Project Close out Letter

1. At conclusion of the project a closeout letter will be prepared including summary of all testing performed on the project.

Project Manager	4.00	hours	@	\$	110.00	hour	440.00
Project Assistant	2.00	hours	@	\$	45.00	hour	90.00
						Sub-Total	\$ 530.00
						Total	\$ 22,860.50



DESIGN GROUP, LLC

A D/WBE, SBA 8(A), WOSB Certified
Civil Engineering Firm

January 28, 2022

Burns & McDonnell
Aviation and Federal
9400 Ward Parkway
Kansas City, MO 64114

ATTN: Ryan B. Lorton, PE

RE: Columbia Regional Airport

Thank you for the opportunity to estimate this observation work for you. Below please find my scope and fee for the services to be provided by TREKK.

I. The general scope of this work includes on-call construction observation of the Columbia Regional Airport Taxiway improvements. TREKK will be working for Burns and McDonnell on this project and will perform the stated construction observation at our hourly rate. The proposed project entails:

TASK 1 – PROJECT ADMINISTRATION:

1. TREKK will attend a project kickoff meeting with staff and Client.
2. TREKK's in-house project management, administration, budget tracking, and monthly billing (based on 2 months)
 $6 \times 150/\text{hr} = \900

TASK 2 – CONSTRUCTION OBSERVATION:

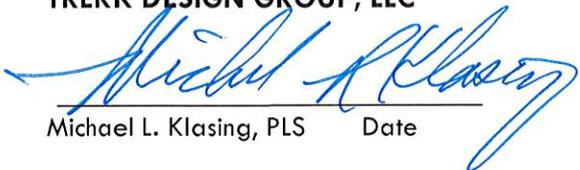
1. TREKK will perform on call construction observation as requested by client.
2. TREKK will be on site Approximately 5 paving days as requested by Burns and McDonnell.
Field - $5 \times 12\text{hrs} = 60 \text{ hrs} \times 141/\text{hr} = \8460
Office $5 \times 3\text{hrs} = 15 \text{ hrs} \times 141/\text{hr} = \2115
Mileage of $6 \times 30 = 180 @ 58 = \104

TOTAL PROJECT FEE ESTIMATE: \$900 + \$8460 + 2115 + \$104 = \$11,579

Based on the attached rate schedule.

Thanks again and we look forward to working on this project.

TREKK DESIGN GROUP, LLC


Michael L. Klasing, PLS Date

1/28/22



A D/WBE, SBA 8(A), WOSB Certified
Civil Engineering Firm

2021 Compensation for Professional Engineering Services¹
TREKK Design Group, LLC (TREKK)

The OWNERS's payment to the ENGINEER shall be due and payable as follows:

- I. For Professional Engineering Services, when authorized and agreed upon in writing, an amount based upon hourly billing rates plus expenses, in accordance with Section III below allowable salary range for each position classification and expenses, or a negotiated amount as agreed upon.
- II. For Other Services, when authorized and agreed upon in writing, an amount based upon hourly rates plus expenses or unit rates, in accordance with Section III below, or a negotiated amount as agreed upon.

III. Hourly Billing Rates and Expenses:

Project Principal	\$ 198.90	-	\$ 286.11	Senior Professional Land Surveyor	\$ 131.58	-	\$ 188.50
Project Manager	\$ 119.34	-	\$ 276.01	Professional Land Surveyor I	\$ 113.22	-	\$ 164.93
Senior Professional Engineer	\$ 168.30	-	\$ 276.01	Professional Land Surveyor II	\$ 97.92	-	\$ 141.37
Professional Engineer I	\$ 146.88	-	\$ 242.35	Professional Land Surveyor III	\$ 85.68	-	\$ 124.54
Professional Engineer II	\$ 119.34	-	\$ 195.23	Survey Technician I	\$ 85.68	-	\$ 141.37
Professional Engineer III	\$ 104.04	-	\$ 151.47	Survey Technician II	\$ 61.20	-	\$ 100.98
Senior Project Engineer	\$ 131.58	-	\$ 198.59	Survey Technician III	\$ 52.02	-	\$ 77.42
Project Engineer I	\$ 110.16	-	\$ 171.67	Survey Crew (2-3 man crew)	\$ 162.18	-	\$ 229.50
Project Engineer II	\$ 94.86	-	\$ 141.37	LiDAR Crew	\$ 214.20	-	\$ 290.00
Project Engineer III	\$ 79.56	-	\$ 121.18	Slam Crew	\$ 107.10	-	\$ 173.00
Senior Industry Specialist	\$ 162.18	-	\$ 259.18	Survey Crew Chief I	\$ 70.38	-	\$ 117.81
Industry Specialist I	\$ 134.64	-	\$ 208.69	Survey Crew Chief II	\$ 55.08	-	\$ 90.88
Industry Specialist II	\$ 113.22	-	\$ 175.03	Survey Rodman	\$ 48.96	-	\$ 70.69
Industry Specialist III	\$ 94.86	-	\$ 148.10	Senior Utility Coordinator	\$ 100.98	-	\$ 168.30
Office Technician I	\$ 70.38	-	\$ 111.08	Utility Coordinator I	\$ 79.56	-	\$ 131.27
Office Technician II	\$ 58.14	-	\$ 90.88	Utility Coordinator II	\$ 64.26	-	\$ 100.98
Office Technician III	\$ 48.96	-	\$ 77.42	Utility Coordinator III	\$ 55.08	-	\$ 80.78
GIS Analyst I	\$ 97.92	-	\$ 161.57	Senior Construction Inspector	\$ 85.68	-	\$ 141.37
GIS Analyst II	\$ 82.62	-	\$ 124.54	Construction Inspector I	\$ 70.38	-	\$ 111.08
GIS Analyst III	\$ 70.38	-	\$ 107.71	Construction Inspector II	\$ 58.14	-	\$ 90.88
GIS Technician I	\$ 67.32	-	\$ 104.35	Construction Inspector III	\$ 48.96	-	\$ 74.05
GIS Technician II	\$ 55.08	-	\$ 87.52	Asset Management Specialist	\$ 137.70	-	\$ 212.06
GIS Technician III	\$ 48.96	-	\$ 70.69	Innovation Specialist	\$ 122.40	-	\$ 175.03
Field Crew	\$ 131.58	-	\$ 185.13	Controller	\$ 116.28	-	\$ 175.03
Senior Field Technician	\$ 82.62	-	\$ 138.01	Accounting Specialist I	\$ 88.74	-	\$ 134.64
Field Technician I	\$ 64.26	-	\$ 107.71	Accounting Specialist II	\$ 64.26	-	\$ 97.61
Field Technician II	\$ 55.08	-	\$ 80.78	Accounting Specialist III	\$ 48.96	-	\$ 74.05
Field Technician III	\$ 48.96	-	\$ 70.69	Admin	\$ 48.96	-	\$ 74.05
Project Designer I	\$ 104.04	-	\$ 151.47	Administrative Specialist	\$ 67.32	-	\$ 100.98
Project Designer II	\$ 91.80	-	\$ 131.27	Survey Equipment	\$ 7.50	hr	
Project Designer III	\$ 79.56	-	\$ 114.44	LiDAR Equipment	\$ 1,000.00	hr	
CADD Technician I	\$ 73.44	-	\$ 114.44	GeoSLAM Equipment Charge	\$ 30.00	hr	
CADD Technician II	\$ 61.20	-	\$ 94.25	Survey Drone Equipment	\$ 110.00	hr	
CADD Technician III	\$ 52.02	-	\$ 77.42	Mileage	\$ 0.56	mi	
				Other Expenses	Cost		

Note 1: The above hourly rates and unit prices are good through December 31, 2021.

EXHIBIT V – SA1

ENGINEERING BASIC AND SPECIAL SERVICES-COST BREAKDOWN

EXHIBIT V SUMMARY

DERIVATION OF CONSULTANT PROJECT COSTS
 SUMMARY OF COSTS
 RECONSTRUCT TAXIWAY A SOUTH OF RUNWAY 13-31
 C-Services for Reconstruct Taxiway A South of Runway 13-31
 Columbia Regional Airport
 BASIC & SPECIAL SERVICES
 March 2, 2022

		Principal	Project Manager	Sr. Civil Engineer	Staff Civil Engineer	Sr. Electrical Engineer	Staff Electrical Engineer	Sr. Technician	Staff Technician	Resident Project Representative	Clerical	Other Costs	
Gross Hourly Rates		\$ 247.75	\$ 198.20	\$ 159.27	\$ 138.03	\$ 191.12	\$ 157.50	\$ 123.87	\$ 106.18	\$ 176.96	\$ 74.32		
BASIC SERVICES													
	1	Construction Administration (Office)	11.0	192.0	266.0	0.0	45.0	38.0	0.0	0.0	8.0	98.0	Sum: (1, 2, 3, 4, & 5)
Total =		\$ 109,400.64	\$ 2,725.22	\$ 38,054.02	\$ 42,364.82	\$ -	\$ 8,600.38	\$ 5,984.87	\$ -	\$ -	\$ 1,415.70	\$ 7,283.78	\$ 2,971.85
	2	Construction Phase Services (Field)	0.0	8.0	32.0	0.0	8.0	8.0	0.0	0.0	900.0	0.0	Sum: (1, 2, 3, 4, & 5)
Total =		\$ 191,162.54	\$ -	\$ 1,585.58	\$ 5,096.52	\$ -	\$ 1,528.96	\$ 1,259.97	\$ -	\$ -	\$ 159,266.25	\$ -	\$ 22,425.26
	3	Construction Closeout	0.0	12.0	14.0	28.0	13.0	16.0	12.0	28.0	4.0	4.0	Sum: (1, 2, 3, 4, & 5)
Total =		\$ 20,297.32	\$ -	\$ 2,378.38	\$ 2,229.73	\$ 3,864.86	\$ 2,484.55	\$ 2,519.95	\$ 1,486.49	\$ 2,972.97	\$ 707.85	\$ 297.30	\$ 1,355.25
PART A SUBTOTAL		\$ 320,860.50											
SPECIAL SERVICES													
	1	Material Testing: TSi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Sum: (1, 2, 3, 4, & 5)
Total =		\$ 22,860.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,860.50
	2	Construction Observation Services: TREKK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Sum: (1, 2, 3, 4, & 5)
Total =		\$ 11,579.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,579.00
PART B SUBTOTAL		\$ 34,439.50											
PART A & PART B TOTAL		\$ 355,300.00											

(1) Mileage, Motel & Meals (3) Computer Services (5) Miscellaneous Items
 (2) Equipment, Materials & Supplies (4) Vendor Services