



Proposal for Construction Materials Testing and Erosion
Prevention and Sediment Control Inspection Services

Marion Street Bioretention

OSE Project No. D30-N034-MJ /

SCOR Project No. AP-22-4003-02

Columbia, South Carolina

S&ME Proposal No. 24610453R1

PREPARED FOR:

South Carolina Office of Resilience
632 Rosewood Drive
Columbia, South Carolina 29201

PREPARED BY:

S&ME, Inc.
134 Suber Road
Columbia, South Carolina 29201

September 24, 2024



September 24, 2024

South Carolina Office of Resilience
632 Rosewood Drive
Columbia, SC 29201

Attention: Ms. Shauna Webb

Reference: **Proposal for Construction Material Testing Services
Marion Street Bioretention**
Columbia, South Carolina
S&ME Proposal No. 24610453R1

Dear Ms. Webb:

S&ME, Inc. (S&ME) is pleased to provide this proposal for Construction Materials Testing services at the above referenced project. This proposal describes our understanding of the project, the intended scope of work, and presents the compensation for our services. The terms and conditions will be according to the Statewide Term Contract Number 4400022270, between the State of South Carolina and S&ME, dated December 16, 2019.

◆ Project Information

Project information was originally obtained from an email sent to Mr. Tom Behnke, with S&ME, on September 6, 2024, from Ms. Shauna Webb, with the South Carolina Office of Resilience. The following documents are referenced in preparation of this proposal:

- Construction Drawings, prepared by Goodwyn, Mills, and Cawood, Inc., dated March 29, 2024.
- Project Manual, prepared by Goodwyn, Mills, and Cawood, Inc., dated July 15, 2024.

The project site is identified as Marion Street, located between Laurel Street and Elmwood Street, in Columbia, South Carolina. The project involves the installation of five bioretention cells and replacement of stormwater infrastructure.

From our review of the above-referenced documents, it is understood that S&ME will be requested to observe subgrades of pavement areas, as well as perform field density testing of soil subgrades and utility backfill, graded aggregate base course and paving consisting of hot-mix asphalt and concrete.

◆ Scope of Services

Based on the project information provided to us and our experience with similar projects, we propose the following scope of services. The Client is responsible for directing the actual scope of work from the task items presented herein and determining the adequacy of the proposed scope to achieve Client's objectives. Testing will be performed in general accordance with applicable ASTM, AASHTO, SCDOT and/or other industry standards, unless noted otherwise.



Earthwork Testing

- **Subgrade Evaluations:** Evaluate the soils after asphalt demolition and again prior to site grading activities in the proposed pavement areas. The purpose of these evaluations is to determine if unsuitable materials (such as debris, frozen soils, saturated soils, or otherwise unstable or unsuitable materials) have been removed and to determine if the site has been prepared in accordance with the project specifications. The evaluations may consist of proofrolling observations to help identify areas which pump, rut, or deflect under passage of construction equipment, test pit observations, probing, and/or hand auger borings with Dynamic Cone Penetrometer testing.
- **Undercutting Observations:** When necessary, observe undercutting operations, determine when suitable soil conditions are reached, and measure the approximate length, width, and depth of undercut areas using a tape measure. If more accurate measurements are required, we recommend that a surveyor be contracted directly by the contractor or owner.
- **Compaction Testing:** Observe placement of fill soils, and randomly perform in-place tests to measure the compaction of the fill placed. Testing will be performed by nuclear gauge methods (ASTM D6938), unless otherwise outlined in project specifications.
- **Laboratory Testing:** Perform laboratory testing to include classification/index testing (ASTM D2216, D1140 and D4318) and standard Proctor (ASTM D698) on representative samples of the fill materials, as needed, to determine general conformance with specifications.

Aggregate Base Course (ABC) Stone Evaluations and Testing

- **In-Place Compaction Testing:** Perform nuclear density tests (ASTM D-6938) to measure the compaction of the material for general conformance with the project specifications.
- **Stone Thickness Measurements:** Measure and document stone thickness by manually advancing a hand auger through the stone or using other hand tools to penetrate the stone at random locations and measuring the material depth with a tape measure.
- **Laboratory Testing:** Perform laboratory testing on a representative stone sample to include modified Proctor (ASTM D-1557) testing.

Concrete Sampling, Testing, and Observations

- **Sampling and Testing of Concrete:** Sample fresh concrete, perform slump (ASTM C-143), air content (ASTM C-173 or C-231), unit weight (ASTM C-138), and temperature (ASTM C-1064) tests, and prepare concrete specimens for concrete placed in concrete members and pavements as outlined below:
 - Sets of five 4"x8" cylinders for every 50 cubic yards, or portions thereof, for normal weight concrete.



After the initial curing on site, return the specimens to the laboratory for additional curing and compressive strength testing. For each set, unless otherwise directed, one specimen will be tested at an age of 7 days and three specimens at 28 days, with one additional specimen held in reserve.

- **Concrete Placement Observations:** Observe concrete conveyance and consolidation techniques. Evaluate batch-to-placement time for general conformance with specifications. Document any segregation or contamination observed during placement.

Asphalt Pavement Testing

- **Asphalt Placement Observations:** Observe placement and rolling operations, and measure temperature of asphalt at time of placement.
- **In-Place Compaction Testing:** Perform in-place tests (ASTM D2950) to estimate the compaction of the asphalt in the field at the time of placement. Please note that this testing provides an estimation of the density of the material only. To properly determine in-place compaction, additional laboratory testing such as bulk specific gravity and maximum specific gravity should be performed.

Project Management and Administration

- **Progress Reports:** We will summarize our activities, observations and test results for each site visit on a Progress Report. In order to expedite and provide timely, efficient, and accurate quality assurance report preparation, review, and distribution during construction, Metafield will be used for this project. This software has been specifically tailored for S&ME to facilitate report preparation, online review, and Internet-based reporting for inspection observations and tests performed at the site and in the laboratory, all within one system. Once reviewed by an S&ME professional, the reports will be transmitted to the design and construction team members (typically via email). We will identify discrepancies in the report and bring them to the attention of the contractor, owner, and design team.

This scope of services should be reviewed by the Design Professional in Charge to confirm that it meets their requirements. If additional services beyond those described in this proposal are required, we can prepare an addendum to this proposal describing those services.

◆ Excluded Services

Without attempting to be a complete list of all services or potential services which will be excluded from this proposal and not performed by S&ME, the following services are specifically excluded from this proposal:

1. Aspects of site safety other than safety of S&ME employees.
2. Construction layout or vertical or horizontal control of any items
3. Acceptance or rejection of work.
4. Pre- and post-construction building condition assessments.
5. Vibration monitoring.
6. Asphalt or concrete batch plant inspection or observation.



7. Non-destructive testing of concrete.
8. Asphalt coring or laboratory testing.
9. Dewatering evaluations.
10. Temporary or permanent bracing/shoring design or evaluations, including evaluating bearing materials beneath shoring.
11. Reviewing or approving any submittals to determine compliance with project requirements.
12. Inspections and sampling/testing of materials or construction not presented within the Scope of Services.

If you need S&ME to provide or subcontract additional services, please contact us to discuss them. We can modify this proposal, or provide a proposal for additional services, as needed.

◆ Client Responsibilities and Proposal Use

In order for S&ME to properly provide our services, we request that our Client or their designated representative be responsible for the following items:

- **Plans and Specifications:** Please provide S&ME with a complete set of current project plans and specifications prior to the performance of our services for this project. We also request to be copied on distribution of revised plan sheets/specifications, Requests for Information (RFIs), Bulletin Drawings, or other items relevant to our scope of work throughout the duration of this project, from the design team, contractor, or other party responsible for distribution of these items.
- **Verification of Proposed S&ME Testing Methods:** Confirm that the proposed testing methods and frequencies meet the requirements of the project specifications and/or any other requirements (County, City, OSE, etc.) associated with this project. S&ME assumes that the proposed equipment, installation methods, data recording, and/or other services described in this proposal are appropriate to satisfy the purpose of the Client's proposal request.
- **Initial Curing for Concrete Specimens:** ASTM C-31 requires initial curing for concrete specimens to be between 60° and 80° Fahrenheit and in a location out of direct sunlight and away from radiant heat sources. Please provide the initial curing environment, as necessary.
- **Parking:** Please provide parking for our employees' vehicles while performing on-site services. If paid parking is required this expense will be billed to the project.
- **Report Distribution:** Please provide S&ME with the names and contact information of individuals to include for report distribution.
- **Scheduling:** Please provide the general contractor with a copy of our scope of services and scheduling requirements so that our services can be properly coordinated. It is the responsibility of our Client or his/her representative to schedule S&ME when our services are required. The performance of the above-outlined services is dependent upon proper scheduling by our Client or his/her representative.



This proposal is solely intended for the basic services as described in the Scope of Services. The Scope of Services may not be modified or amended, unless the changes are first agreed to in writing by the Client and S&ME. Use of this proposal and resulting documents is limited to the above-referenced project and Client. No other use is authorized by S&ME.

◆ Project Scheduling

The following sections present a discussion to help you better understand the scope of services proposed by S&ME to try to meet the intent of the tasks proposed by S&ME. The client is responsible for directing the scope of work performed from the task items included below. S&ME proposes to provide services on an **on-call** basis.

On-call dispatching means that the S&ME representative will not report to the site unless called by the client or a site representative appointed by the client. He or she will then remain on the site until a particular test or observation is completed, after which time he or she does not report back to the site until again summoned. To allow for scheduling the appropriate personnel, 24 hours of advance notice is requested for on-call services.

We anticipate our services will be required on a periodic basis for the services outlined above. Scheduling should be made through the S&ME office (803-561-9024) or project manager assigned to the project between the office business hours of 8 am and 5 pm, Monday through Friday. We will then assign the appropriate, qualified personnel to perform the requested work at the date and time requested by your representative.

We request the following notification be provided for our services:

- A minimum 24 hours prior to our services being needed.
- For work during off-hours (between 5 pm and 8 am), Weekends, and/or on holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving, Christmas Eve, and Christmas Day) – minimum 72 hours prior to our services being needed.
- We will attempt to accommodate late scheduling (including day of services being needed); however, we cannot guarantee we will have a technician available.

S&ME cannot accept responsibility for any damages caused by construction delays that are related to inadequate notice, improper scheduling, or for work performed by the Contractor without our presence. Third party testing in no way relieves any participant from the proper performance of work according to the contracts, plans, specification and applicable building and safety codes. Therefore, adequate scheduling by the contractor(s) will be required to satisfy the specification requirements prior to continuation or concealment of the work product.

◆ Compensation

Billing for this project will be on a unit rate basis in accordance with the rates established in our State of South Carolina Contract Number 4400022270 dated December 16, 2019. For budgetary purposes and based on the project information provided to us and our experience with similar projects, **we recommend a budget allowance**



of **\$21,404.40** for the services outlined in this proposal. A breakdown of this cost is included in the attached Opinion of Probable Cost.

Our fee estimate is approximate and may vary depending on final construction schedules, which may be affected by weather, the contractor's means and methods, and/or scheduling of our services by the contractor. Our fees for this project will be affected by any re-testing required as a result of non-compliance items, inadequate scheduling, testing not outlined in this proposal (including those from design changes), or if we are requested/required to be on site more hours than assumed in this proposal. Depending on sequencing and scheduling of work, some of the services may be able to be performed during the same site visit, thus reducing the overall number of hours required.

◆ **Authorization**

It is our understanding that the South Carolina Office of Resilience will issue a purchase order as authorization to proceed with the performance of our services. The terms and conditions will be according to the State of South Carolina Contract Number 4400022270 dated December 16, 2019. Please reference this proposal number and date on the purchase order.

◆ **Closure**

S&ME appreciates the opportunity to propose our services to you. If you have any questions after reviewing this proposal, please do not hesitate to contact us at (803) 561-9024 or via email.

Sincerely,
S&ME, Inc.

A handwritten signature in black ink, appearing to read 'R. C. Bruorton'.

Robert C. Bruorton P.E.
Senior Engineer/Vice President

A handwritten signature in black ink, appearing to read 'W. Turner Allman'.

W. Turner Allman, P.E.
Operations Manager

Attachments: SE-955
SE-955A
Opinion of Probable Cost

SE-955

INSPECTION/MATERIAL TESTING ORDERAGENCY: South Carolina Office of ResiliencyPROJECT NAME: Marion Street BioretentionPROJECT NUMBER: D30-N034-MJMASTER AGREEMENT CONTRACT NUMBER: 4400022270

AGENCY INSPECTION ORDER NUMBER: _____

INSPECTION FIRM: S&MEADDRESS: 134 Suber Road, Columbia, SC 29210**FEE INFORMATION**

Inspection Firm's services and associated fees are set forth in the attached SE-955A, Inspection/Material Testing Order Negotiation Worksheet, dated 9/24/2024, and the attachments to the Worksheet, all of which are incorporated herein by reference.

INSPECTION/TESTING FEE TOTAL: \$ 20,855.00REIMBURSABLES: \$ 549.40CONTRACT TOTAL: \$ 21,404.40**SCHEDULE**START DATE: 12/01/2024SCHEDULED COMPLETION DATE: 06/01/2025

In response to the Request for Inspection Services from the Agency, dated the 6th day of September, 2024, the Agency and Inspection Firm agree, as indicated by the signatures below, to the scope of services as described in this Inspection/Material Testing Order and the attached SE-955A shall be assigned to the Master Agreement for Inspection Services identified above.

AGENCY:

BY: *(Signature of Representative)*PRINT NAME: Eric G. FosumireChief of Staff &
General Counsel

PRINT TITLE: _____

DATE: 10 October 2024

INSPECTION FIRM:

BY: *(Signature of Representative)*PRINT NAME: W. Turner Allman, P.E.PRINT TITLE: Operations ManagerDATE: 10/10/2024

INSPECTION ORDER CONSISTS OF:

1. This Order, SE-955
2. SE-955A, Inspection/Material Testing Order Negotiation Worksheet
3. SE-962, Statement of Special Inspections Responsibilities (for Chapter 17 inspections only).

**SE-955A
INSPECTION/MATERIAL TESTING ORDER NEGOTIATION WORKSHEET**

AGENCY:	South Carolina Office of Resiliency
PROJECT NAME:	Marion Street Bioretention
PROJECT NUMBER:	D30-N034-MJ
INSPECTION FIRM:	S&ME, Inc.

Project Manager for Inspection Firm:	W. Turner Allman, P.E.
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ICC CHAPTER 1 INSPECTORS	NAME	CREDENTIALS (Insert or Attach)
Building		
Electrical		
Mechanical		
Plumbing		

ICC CHAPTER 17 INSPECTORS	NAME	CREDENTIALS (Insert or Attach)
Prestressed Concrete		
Reinforced Concrete		
Structural Masonry		
Spray-applied Fireproofing		
Structural Steel & Bolting		
Structural Steel Welding		
Soils		
Smoke Control		
Cold Formed Steel Framing		
Wood Construction		
Architectural Components		
Fire Protection Systems		
Mechanical & Electrical Components		

FIELD TESTING TECHNICIANS	NAME	CREDENTIALS (Insert or Attach)
Soil		
Masonry Grout		
Concrete		
Asphalt		
CEPSCI		
Deep Foundations		

SE-955A

INSPECTION/MATERIAL TESTING ORDER NEGOTIATION WORKSHEET

IBC CHAPTER 1	INSPECTION TYPE	NUMBER OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
110.2	Site				\$ -
110.3.1	Footing and Foundation				\$ -
110.3.2	Concrete Slab and Under-Floor				\$ -
110.3.3	Lowest Floor Elevation				\$ -
110.3.4	Frame				\$ -
110.3.5	Lath and Gypsum Board				\$ -
110.3.6	Fire- and Smoke-Resistant Penetrations				\$ -
110.3.7	Energy Efficiency				\$ -
110.3.8	Other (ANSI 117.1)				\$ -
					\$ -
					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

IEC CHAPTER 1	INSPECTION TYPE	NUMBER OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
107.2(1)	Underground				\$ -
107.2(2)	Rough-In				\$ -
107.2(3)	Final				\$ -
107.2.1	Other				\$ -
					\$ -
					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

IFGC CHAPTER 1	INSPECTION TYPE	NUMBER OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
107.2(1)	Underground				\$ -
107.2(2)	Rough-In				\$ -
107.2(3)	Final				\$ -
107.2.1	Other				\$ -
					\$ -
					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

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INSPECTION/MATERIAL TESTING ORDER NEGOTIATION WORKSHEET

IMC CHAPTER 1	INSPECTION TYPE	NUMBER OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
107.2(1)	Underground				\$ -
107.2(2)	Rough-In				\$ -
107.2(3)	Final				\$ -
107.3	Observation of Tests				\$ -
107.2.1	Other				\$ -
					\$ -
					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

IPC CHAPTER 1	INSPECTION TYPE	NO. OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
107.2(1)	Underground				\$ -
107.2(2)	Rough-In				\$ -
107.2(3)	Final				\$ -
107.3	Observation of Tests				\$ -
107.2.1	Other				\$ -
					\$ -
					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

IBC CHAPTER 17	INSPECTION TYPE	NO. OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
1704.2.5	Fabricators				\$ -
1705.2	Steel Construction				\$ -
1705.3	Concrete Construction				\$ -
1705.4	Masonry Construction				\$ -
1705.5	Wood Construction				\$ -
1705.6	Soils/asphalt				\$ -
1705.7	Driven Deep Foundations				\$ -
1705.8	Cast-in-place Deep Foundations				\$ -
1705.9	Helical Pile Foundations				\$ -
1705.10	Wind Resistance				\$ -
1705.11	Seismic Resistance				\$ -
1705.13	Spray Fire-resistant Materials				\$ -
1705.15	Exterior Insulation and Finish Systems (EIFS)				\$ -
1705.17	Special Inspection for Smoke Control				\$ -
Other					\$ -
Other					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

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INSPECTION/MATERIAL TESTING ORDER NEGOTIATION WORKSHEET

MISC.	INSPECTION TYPE	NO. OF INSPECTIONS	HOURS	HOURLY RATE	SUBTOTAL
CWA § 402	NPDES Erosion Control				\$ -
Other					\$ -
					\$ -
	Plan Review & Major Task Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL					\$ -

LAB TESTS	NUMBER OF TESTS	PRICE PER TEST	SUBTOTAL
Standard Proctor - ASTM D698	1	\$ 150.00	\$ 150.00
Modified Proctor - ASTM D1557	1	\$ 160.00	\$ 160.00
Stone-Aggregate Gradation			\$ -
California Bearing Ratio - ASTM D1883			\$ -
Soil Moisture Content - ASTM D2216	1	\$ 25.00	\$ 25.00
Atterberg Limits - ASTM D4318	1	\$ 90.00	\$ 90.00
Wash 200 Fines - ASTM D1140/C117	1	\$ 85.00	\$ 85.00
Grain Sieve Analysis w/o hydro. - ASTM C136			\$ -
Grain Sieve Analysis w/hydro. - ASTM D422			\$ -
Soil Specific Gravity - ASTM D854/D550			\$ -
Concrete Beam Strength - ASTM C78			\$ -
Concrete Cores Strength - ASTM C42			\$ -
Concrete Cylinders, Cure & Test - ASTM C31/39	45	\$ 24.00	\$ 1,080.00
Grout Prism Strength - ASTM C 1019			\$ -
Mortar Cub Strength - ASTM C 109			\$ -
CMU Compressive Strength - ASTM C140			\$ -
Masonry Compressive Strength - ASTM C1314			\$ -
Soil Cement Mix Design			\$ -
			\$ -
			\$ -
SECTION SUBTOTAL			\$ 1,590.00

SE-955A

INSPECTION/MATERIAL TESTING ORDER NEGOTIATION WORKSHEET

TESTING TECHNICIAN FIELD TESTS	NUMBER OF TESTS	NUMBER OF HOURS /TESTS	TECH. HOURLY RATE	SUBTOTAL
Soil		98	\$ 75.00	\$ 7,350.00
GABC		18	\$ 75.00	\$ 1,350.00
Concrete		54	\$ 75.00	\$ 4,050.00
Footings				\$ -
Pile				\$ -
Asphalt		30	\$ 75.00	\$ 2,250.00
SWPPP				
Pre-Planning Mtgs.				\$ -
SECTION SUBTOTAL				\$ 15,000.00

INSPECTION AND TESTING EQUIPMENT	UNIT OF MEASURE	NUMBER OF UNITS	PRICE PER UNIT	SUBTOTAL
Concrete Coreing Equip.	Days			\$ -
PDA Pile Test Equipment	Days			\$ -
Bolt Torque Wrench	Hours			\$ -
Ultrasonic Testing Equip.	Hours			\$ -
Nuclear Density Test Equipment (Soil)	Days	21	\$ 50.00	\$ 1,050.00
				\$ -
				\$ -
				\$ -
SECTION SUBTOTAL				\$ 1,050.00

PROJECT SUPPORT				
SUPPORT TYPE	TASKS	HOURS	HOURLY RATE	SUBTOTAL
Project Manager	Plan Review			\$ -
	Pre-Con. Meeting			\$ -
	Milestone Meetings			\$ -
	Inspector Management	25	\$ 100.00	\$ 2,500.00
Clerical	Reports	13	\$ 55.00	\$ 715.00
	General			\$ -
SECTION SUBTOTAL				\$ 3,215.00

SE-955A

INSPECTION/MATERIAL TESTING ORDER NEGOTIATION WORKSHEET

REIMBURSABLES	TOTAL UNITS	UNIT RATE	SUBTOTAL
Mileage	820	\$ 0.670	\$ 549.40
Lodging Fees			\$ -
Per Diem Fees			\$ -
			\$ -
			\$ -
SECTION SUBTOTAL			\$ 549.40
GRAND TOTAL		\$	21,404.40

The Forgoing is Based on the Following Assumptions & Attachments

NOTE: Required tests and frequency shall be determined by the Design Professional.

APPROVAL

Agency Representative: Eric A. Foglia Date: 10/10/2024

Inspection Agency: W. [Signature] Date: 10/10/2024



Opinion of Probable Cost
Construction Materials Testing and
Erosion Prevention and Sediment Control Inspections
Marion Street Bioretention
Columbia, South Carolina
S&ME Proposal No. 24610453

General Information and Assumptions

- Based on general review of provided project drawings and project manual

1 Earthwork Testing	Qty	UOM	Rate	Cost
- Assume 12 site visits at 8 hours for utility backfill density testing				
- Assume 1 site visit at 2 hours for soil sample pick-up				
A Technician	98	hours	\$75.00	\$7,350.00
B Soil - Natural Moisture Content	1	each	\$25.00	\$25.00
C Soil - Percent Finer 200 Sieve	1	each	\$85.00	\$85.00
D Soil - Atterberg Limits	1	each	\$90.00	\$90.00
E Soil - Laboratory Compaction Characteristics (Proctor) - Standard Effort	1	each	\$150.00	\$150.00
F Nuclear gauge (per day)	12	each	\$50.00	\$600.00
G Trip Charge (mileage only)	260	each	\$0.670	\$174.20
Subtotal:				\$8,474.20

2 Graded Aggregate Base Course	Qty	UOM	Rate	Cost
- Assume 4 site visits at 4 hours for density testing of stone base course beneath concrete pavements				
- Assume 1 site visit at 2 hours for GABC sample pick-up				
A Technician	18	hours	\$75.00	\$1,350.00
B Aggregate - Laboratory Compaction Characteristics (Proctor) - Modified Effort	1	each	\$160.00	\$160.00
C Nuclear gauge (per day)	4	each	\$50.00	\$200.00
D Trip Charge (mileage only)	100	each	\$0.670	\$67.00
Subtotal:				\$1,777.00

3 Concrete Sampling and Testing	Qty	UOM	Rate	Cost
- Assume 5 days at 4 hours each for concrete flume placement				
- Assume 4 days at 4 hours each for concrete pavement placement				
- Assume 9 days at 2 hours each for cylinder pick-up				
- Assume 1 set of 5 cylinders cast per trip				
A Technician	54	hours	\$75.00	\$4,050.00
B Concrete - Compressive Strength Testing	45	each	\$24.00	\$1,080.00
C Trip Charge (mileage only)	360	each	\$0.670	\$241.20
Subtotal:				\$5,371.20

4 Asphalt Pavement Testing	Qty	UOM	Rate	Cost
- Assume 5 days at 6 hours each for asphalt testing				
A Technician	30	hours	\$75.00	\$2,250.00
B Nuclear gauge (per day)	5	each	\$50.00	\$250.00
C Trip Charge (mileage only)	100	each	\$0.670	\$67.00
Subtotal:				\$2,567.00

5 Project Management and Administration	Qty	UOM	Rate	Cost
A Project Manager	25	hours	\$100.00	\$2,500.00
B Administrative Support	13	hours	\$55.00	\$715.00
Subtotal:				\$3,215.00

Total Opinion of Probable Cost: \$21,404.40

