#### CONTRACT

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### **CHARTER COUNTY OF WAYNE BUILDING AUTHORITY**

And

SOILS AND MATERIALS ENGINEERS, INC.

THIS CONTRACT ("Contract") is entered this \_\_\_\_\_ day of August, 2011, by between the Charter County of Wayne Building Authority (the "County") and <u>Soils and Materials Engineers, Inc.</u> a Michigan corporation (the "Contractor") for certain services herein designated in connection with a project known as the Wayne County Consolidated Jail Facility in Detroit, Michigan ("Project").

The County and Contractor agree as follows:

#### 1. PURPOSE

1.01 The County is currently developing the Project, projected to be approximately 700,000 Building Gross Square Feet and consisting of a partial basement level with a tunnel connection to the Frank Murphy Justice Center, main support level, and three levels of housing. Approximate total capacity is 2,192 beds, and generally includes twelve 64 single cell units, eighteen 64 bed dormitory units consisting principally of eight 8-person mini-dorms, and other special housing. The facility is located on a 7.175 acre site directly east of the Frank Murphy Justice Center bordered by St. Antoine Street on the west, Gratiot St. on the north, the Chrysler Freeway on the east, and Macomb St. on the south.

1.02 In furtherance of the County's development of the Project, the County is in need of certain technical and professional geotechnical consulting and geotechnical related field services and related services ("Services"). The Contractor represents it is experienced and qualified to perform the Services required by the County. Accordingly, the Contractor desires to provide the Services for the County's Project.

#### 2. <u>ENGAGEMENT OF CONTRACTOR</u>

2.01 The County engages the Contractor and the Contractor agrees to faithfully and diligently perform the Services according to the terms and conditions contained in this Contract and consistent with the standards of practice in the community. The Contractor agrees to perform the Services in accordance with the highest standard of conduct applicable to members of the local community performing similar services on similar type projects.

#### 3. SCOPE OF SERVICE

3.01 To complete the Services, to the satisfaction of the County, the Contractor agrees to complete the following tasks: See Exhibit A, Contractor's June 29, 2011 Proposal. To the extent of any conflict between Exhibit A and the Contract, the Contract shall control in all respects as determined by the County.

- 3.02 The Contractor must perform the Services in a satisfactory manner, as determined within the sole and absolute discretion of the County. The Contractor warrants that the Contractor is authorized to do business under the laws of the State of Michigan, qualified in all respects to perform the Services required by this Contract and possesses all required licenses (Federal, State and Local) necessary to complete the Services.
- 3.03 If there are any disputes between the parties regarding the extent and character of the Services to be performed, the Contractor agrees the County is vested with the sole and absolute authority to determine the extent of the Services required by the Contractor, and the Contractor agrees it shall provide the Services consistent with the direction of the County.
  - 3.04 The Services include any and all conferences and consultations deemed necessary by the County to properly and fully perform the Services, as well as any and all Materials required to properly document the Services. As used herein, the term "Materials" means all any kind of written, printed, recorded or graphic matter, however produced or reproduced and related to or arising from the Services, including but not limited to: records, manuals, statements, minutes, letters, warranties, correspondence, memoranda, reports, lists, studies, surveys, directives, agreements, contracts, print-outs, telegrams, teletype, telexes, telefax, pamphlets, notes, messages, bulletins, diary and calendar entries, maps, charts, brochures, graphics, tabulations, invoices, bills, work sheets, trip reports, receipts returns, schedules, transcripts, statistics, test reports, records of meetings, conference records, telephone records, records of conversation or any other form of communication, sound or voice recordings and reproductions in any form, film impressions, photographs, negatives, slides, microfilms, microfiches, punch cards, tapes, discs, data, summaries, opinions, evaluations, journals, data processing input and output, all others records kept by electronic, photographic, mechanical, manual or other means, and things similar to any of the foregoing, however, denominated.
- 3.05 All Services are subject to review and approval of the County for completeness and fulfillment of the requirements of the Contract. Neither the County's review, approval, or payment for any of the Services shall be construed to operate as a waiver of any of the County's rights under the Contract and/or applicable

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#### 4. <u>TERM OF CONTRACT</u>

4.01 The Parties agree time is of the essence, and the Contractor shall begin the Services immediately and complete the Services immediately, to the satisfaction of the County.

#### 5. MATERIALS TO BE FURNISHED CONTRACTOR

5.01 Upon request of the County, the Contractor shall furnish, as part of the Services and without any additional compensation, the Materials the County deems necessary to properly document the Services.

#### 6. PERSONNEL

- 6.01 To induce the County to enter into the Contract, the Contractor represents and warrants the Contractor is authorized to do business under the laws of the State of Michigan and is duly qualified to perform the Services required by the Contract.
- <u>6.02</u> The Contractor warrants that all employees of the Contractor assigned to the performance of the services are qualified and authorized to perform the Services under the state and local laws and governing professional association rules where the employee is employed.
- 6.03 The Contractor warrants that each of its employees shall devote the time and professional ability necessary to most effectively and efficiently perform the Services according to professional standards.
- 6.04 Whenever an employee assigned to this Contract must be replaced for any reason, the Contractor must supply a replacement acceptable to the County and as soon as possible. The Contractor's replacement of any employee shall not delay the Services, and the Contractor agrees to work such overtime and/or additional time, at the Contractor's sole cost and expense, to recover any time lost due to the replacement of an employee of the Contractor. When replacing any employee with a new employee, the Contractor agrees not to substitute a lower classified employee to perform the Services.

#### 7. <u>ADMINISTRATION</u>

- 7.01 The Contractor shall inform the County immediately upon the Contractor encounter any of the following types of conditions:
  - A. Probable delays or adverse conditions which do or may materially prevent the meeting of the objectives of the Contract. The Contractor must accompany this

- disclosure with a statement of any remedial action taken or contemplated by it; and
- B. Favorable developments or events which enable meeting time schedules or goals sooner than anticipated.
- 7.02 The Contractor must regularly inform the County of its activities in connection with its duties and must keep the County informed of the status of any program.
- 7.03 The Contractor shall have no authority in the name of the County to borrow money or enter into any contracts related to the Project except as otherwise provided in this Contract.

#### 8. <u>COMPENSATION</u>

- 8.01 In exchange for Contractor's full and complete performance of the Services, the County agrees to pay the Contractor <u>UNIT PRICES</u> as set forth in <u>EXHIBIT A ("Compensation"</u>). The Compensation includes all remuneration to which the Contractor may be entitled. The County will not pay the Contractor for overtime, holiday or other premium charges or other benefits. The maximum Compensation the Contractor is entitled to receive for the Contractor's performance of the Service shall not exceed \$90,000.00. Charges for the late payment of invoices are prohibited. Notwithstanding anything to the contrary herein, the Contractor waives any and all claims for additional compensation for which it did not receive the prior written approval of the County, it being expressly agreed the Contractor shall not exceed the Compensation amount set forth above without the prior written approval of the County.
- **8.02** The Contractor must, upon reasonable notice, be available to participate in any proceeding, whether legal, administrative or otherwise, or in any internal County preparatory meetings for the proceeding, in order to assist the County in any matter relating to the purpose or outcome of this Contract.
- 8.03 The Contractor shall not be entitled to any reimbursable expenses of any type, unless the Contractor receives the prior written approval of the County before incurring any costs related to the reimbursable expense. Any and all expenses incurred without the prior written approval of the County shall be borne solely by the Contractor.

#### 9. METHOD OF PAYMENT

9.01 The County will pay for the proper performance of the Services, commensurate with the progress evidenced by the timely performance of the Services, and after the County receives an invoice for

payment. Invoices for payment are due by the first day of each month. Each invoice must certify the total cost of the Services rendered to the Project to date and the cost of all Services for that billing period; and each shall describe in the detail the Services rendered during the prior month. If the invoice also requests reimbursement or payment for reimbursable expenses, the appropriate receipts must be attached. The Contractor must sign the invoice and send it to the County for each calendar month. This section is limited by the provisions of Article 8 with regard to the amounts payable for performance.

- 9.02 The Contractor must direct invoices to the attention of the individual specified in the Notice provisions, Article 19.
- 9.03 The Contractor must submit as part of the invoices, monthly progress reports indicating the Contractor's activities during the month and be signed by an authorized officer of the Contractor.

#### 10. RECORDS - ACCESS

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- 10.01 The Contractor must maintain complete books, ledgers, journals, accounts, or records in which it keeps all entries reflecting its operation pursuant to this Contract. The Contractor must keep the records according to generally accepted accounting practices and for a minimum of 6 years after the Contract's termination and/or completion.
- 10.02 The County and the Legislator Auditor General have the right to examine and audit all books, records, documents and other supporting data as they deem necessary of the Contractor, or any subcontractors, or agents rendering services under this Contract, whether direct or indirect, which will permit adequate evaluation of the services or the cost or pricing data submitted by the Contractor. The Contractor shall include a similar covenant allowing for audit by the County and the Legislative Auditor General in any contract it has with a consultant or agent whose services will be charged directly or indirectly to the County. The County may delay payment to the Contractor pending the results of any such audit without penalty or interest.
- 10.03 The Contractor agrees that representatives of the County are entitled to make periodic inspections to ascertain that the Contractor is properly performing the Services. The Contractor agrees to promptly remedy and correct any reported deficiencies within 10 days of notification by the County.
  - 10.04 If, as a result of any audit conducted by or for a County, State of Michigan or Federal, agency

relating to the Contractor's performance under this Contract, a discrepancy should arise as to the amount of Compensation due the Contractor, the County may retain the amount of Compensation in question from any funds allocated to the Contractor but not yet disbursed under the Contract. Should a deficiency still exist, the County may offset such a deficiency against the compensation to be paid the Contractor in any successive or future Contracts between the parties, and/or the Contractor shall pay the County any compensation due within 7 days of the County's written demand.

#### 11. RELATIONSHIP OF PARTIES

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11.01 The relationship of the Contractor to the County is and will continue to be that of an independent contractor. No liability or benefits, such as workers' compensation, pension rights, or insurance rights, arising out of, or related to a contract for hire or employer/employee relationship, accrues to either party or either party's agent, subcontractor or employee as a result of this Contract. No relationship, other than that of independent contractor will be implied between the parties, or either party's agent, employee, or subcontractor.

11.02 For all purposes, County employees will remain employees of the County and the Contractor's employees will remain employees of the Contractor. The Contractor is being retained by the County as an independent contractor to provide Services to the County, and is not being retained in any capacity as a joint enterprise or venturer with the County. The Contractor also covenants that none of its employees are or will be, during the period of this Contract, employees of the County.

#### 12. <u>INSURANCE</u>

12.01 The Contractor, at its expense, must maintain during the term of this Contract the following insurance:

- A. Professional liability insurance with minimum limits of \$1 Million Dollars per occurrence and \$1 Million Dollars aggregate with a three (3) year tail.
- B. Workers' Compensation Insurance which meets Michigan statutory requirements.
- C. Comprehensive General Liability Insurance with minimum limits of bodily injury of \$500,000 per occurrence and \$1 Million Dollars aggregate with a three (3) year tail, and with minimum limits for property damage of \$500,000 each occurrence and \$1

- Million Dollars aggregate.
- D. Comprehensive Automobile Liability (including hired and non owned vehicles) with minimum limits for bodily injury of \$1 Million Dollars per occurrence and with minimum limits for property damage of \$500,000 per occurrence.
- 12.02 If, during the term of this Contract, changed conditions or other pertinent factors, should in the reasonable judgment of the county, render inadequate the insurance limits, the Contractor will furnish on demand such additional coverage as may reasonably be required and available under the circumstances. The insurance must be effected under valid and enforceable policies, issued by recognized, responsible Michigan insurers which are well-rated by national rating organizations.
- 12.03 The Comprehensive General Liability and Comprehensive Automobile Liability Insurance policies must name the County, the Charter County of Wayne, Parlovecchio Building Co., Inc., Gahfari Associates and AECOM as additional insureds and loss payees, and shall not be canceled or materially changed without at least 30 days prior notice from the Contractor to the County. The Contractor must submit certificates evidencing the insurance to the Risk Management Division at the time the Contractor executes the Contract, and at least 15 days prior to the expiration dates of expiring policies.

#### 13. <u>INDEMNIFICATION</u>

- 13.01 The Contractor agrees to save harmless the County against, and from any and all liabilities, obligations, damages, penalties, claims, costs, charges and expenses (including, without limitation, fees and expenses of attorneys, expert witnesses and other consultants) which may be imposed upon, incurred by or asserted against the County because of any of the following occurring during the term of this Contract:
  - A. Any negligent or tortious act, error, or omission held in a court of competent jurisdiction to be attributable, in whole or in part to the Contractor, or any of its personnel, employees, consultants, agents, or any entities associated, affiliated, (directly or indirectly) or subsidiary to the Contractor now existing, or to be created, their agents and employees for whose acts any of them might be liable.
  - B. Any failure by the Contractor, or any of its employees to perform its obligations either implied or expressed under this Contract.

- 13.02 The Contractor agrees that it is its responsibility and not the responsibility of the County to safeguard the property and materials that the employees of the Contractor use in performing this Contract. The Contractor must hold the County harmless for costs and expenses resulting from any loss of the property and materials used by its employees pursuant to the performance of the Contractor under this Contract.
- 13.03 The Contractor cannot hold the County liable for any personal injury incurred by the employee(s), agents or consultants of the Contractor while working on this Contract which is not held in a court of competent jurisdiction to be directly attributable to the gross negligence of the County or any employee of the County acting within the scope of their employment. The Contractor agrees to hold the County harmless from any such claim by the Contractor's employees.
- 13.04 For purposes of these provisions, the term "County" includes the County, the Charter County of Wayne, Parlovecchio Building Co., Inc., Gahfari Associates and AECOM and all other associated, affiliated, or subsidiary departments, divisions or agencies now existing or to be created their agents and employees.
- 13.05 This indemnity applies without regards to whether the claim, damage, liability or expense is based on breach of contract, breach of warranty, negligence, strict liability, or other tort. This indemnity survives delivery and acceptance of services.
- 13.06 This indemnity must not be construed as a waiver of any governmental immunity the County, its agencies, or employees, has as provided by statute or modified by court decisions.

#### 14. BANKRUPTCY OR INSOLVENCY

- 14.01 If the Contractor is adjudicated bankrupt or insolvent, or if a trustee is appointed over the Contractor or any of its property, whether it is a third party or Contractor as debtor-in-possession (referred to as "Contractor" in this Article unless the context clearly requires otherwise) the following rights, obligations and limitations control:
  - A. Contractor or any trustee must not assign any or all of its rights, title or interest, in or to this Contract, as this Contract is for the delivery of professional services and related services, as to which the County is entitled to insist upon performance solely by the Contractor.
  - B. Contractor or any trustee may only assume this Contract if it provides adequate

- assurance of future performance. Adequate assurance of future performance means proof reasonably satisfactory to the County of:
- (i) adequate financial capacity to employ or contract with sufficient personnel to perform the services assigned to the Contractor as provided in this Contract, and to pay for all services contracted for by the Contractor;
- (ii) adequate financial capacity to own, operate, lease or obtain sufficient facilities and supplies to perform the services assigned to the Contractor as provided for in this Contract; and
- (iii) adequate financial and professional capacity to maintain the professional standard provided in this Contract. The reasonable determination of the County as to the adequate professional capacity of the Contractor is determinative.
- C. Because of the unique nature of the services this Contract requires the Contractor to provide, the Contractor agrees that any requests by the County that the trustee or it as debtor-in-possession assume or reject this Contract in a shorter time than provided for in 11 U.S.C. §365 is reasonable so long as the trustee or Contractor receives no less than 5 business days' notice.
- D. If this Contract is terminated during bankruptcy proceedings or if the trustee or debtor-in-possession successfully and properly obtains a court order rejecting this Contract, the Contractor as debtor-in-possession or its trustee must cooperate with the County in arranging for the orderly transfer of responsibilities to persons or entities as the County may designate. The rejection is not effective until the orderly transfer of responsibilities, consistent with sound professional practice, has been completed.
- 14.02 Although neither party has the right to terminate the Contract merely because the other is adjudicated bankrupt or insolvent or a trustee or a debtor-in-possession is appointed over any parties' property, each party retains all of the other termination rights set forth elsewhere in this Contract during the

period of any proceedings under the Bankruptcy Code.

#### 15. NOTICE OF MATERIAL CHANGES

15.01 The Contractor must immediately inform the County of material changes in its operation, ownership or financial condition. Material changes include, but are not limited to:

- A. Reduction or change in staffing assigned to the Contract;
- B. Decrease in, or cancellation of, insurance coverage;
- C. Delinquent payment, or nonpayment, of tax obligations;
- D. Delinquent payment, or nonpayment, of payroll obligations;
- E. Delinquent funding, or nonfunding, of pension or profit sharing plans;
- F. Delinquent payment, or nonpayment, of subcontractors;
- G. Termination of, or changes in, subcontracts; and/or
- H. Transfer, sale, assignment or delegation to an entity other than the Contractor, of ownership or administrative services.

#### 16. <u>TERMINATION</u>

16.01 When the Contractor has not performed or has unsatisfactorily performed the Contract, Compensation shall be withheld at the discretion of the County. Failure on the part of the Contractor to fulfill contractual obligations shall be considered just cause for termination of the Contractor and the Contractor is not entitled to recover any and all costs incurred by the Contractor following termination, and Contractor waives any and all claims for costs (including but not limited to lost profits and consequential damages).

16.02 The County may terminate this Contract, in whole or in part, without showing cause upon written notice to the Contractor specifying the extent and the effective date of the termination. In connection with such termination, the County shall pay Contractor as Contractor's sole and exclusive remedy a termination payment comprised of any amounts due for Services the County accepted prior to the termination date and Contractor's reasonable and necessary direct costs resulting from the termination which are substantiated by evidence satisfactory to the County. In no event shall the Contractor be entitled to any payment or profit for any Services not accepted by the County (including but not limited to any consequential damages).

16.03 After receipt of a Notice of Termination and except as otherwise directed by the County, the Contractor must:

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- A. Stop work under the Contract on the date and to the extent specified in the Notice of Termination.
- B. Obligate no additional contract funds for payroll costs and other costs beyond the date as the County specifies.
- C. As of the date the termination is effective, present all Contract records and submit to the County the records, data, notes, reports, discs, and documents ("Records") as the County specifies, all pertinent keys to files, and carry out such directives as the County may issue concerning the safeguarding or disposition of files and property.
- Submit within 30 days a final report of receipts and expenditures of funds relating to this Contract.
- E. Place no further orders on subcontracts for materials, services, or facilities, except as may be necessary for completion of such portion of the work under this Contract as is not terminated;
- F. Terminate all orders and subcontracts to the extent that they relate to the portion of work so terminated;
- G. Submit within 30 days a listing of all creditors, subcontractors, lessors, and other parties with which the Contractor has incurred financial obligations pursuant to the Contract.
- 16.04 Upon termination of this Contract, all Materials prepared by the Contractor under this Contract or in anticipation of this Contract must, at the option of the County, become its exclusive property, whether or not in the possession of the Contractor. The Contractor warrants the Materials are free from any claim or retention of rights on the part of the Contractor.
- 16.05 Any intentional failure or delay by the Contractor to deliver the Materials to the County will cause irreparable injury to the County not adequately compensable in damages and for which the County has no adequate remedy at law. The Contractor shall pay the County \$500.00 per day as damages, and not as a

penalty, until it delivers the Materials to the County. The County may seek and obtain injunctive relief in a court of competent jurisdiction and compel delivery of the Materials which the Contractor consents to as well as all applicable damages and costs. The County has unrestricted use of the Materials for the purpose of completing the services.

16.06 Access to the Materials prior to delivery must be restricted to authorized representatives of the County and the Contractor. The Contractor has no right to disclose or use any information gathered in the course of its work without obtaining the written approval of the County. All the information must be confidential and handled in such a manner at all times as to preserve confidentiality.

#### 17. ETHICS IN CONTRACTING

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- <u>17.01</u> The Contractor must comply with Article 12 of Chapter 120 of the Wayne County code governing "Ethics in Public Contracting."
- 17.02 Contractor's material misrepresentation or delinquency in the disclosures required by section 120-225 of the Wayne County Code constitutes a material breach of this Contract, sufficient to warrant immediate termination and the imposition of liquidated damages (not a penalty) of fifteen percent (15%) of the consideration made or due under the Contract as of the date of termination.
- <u>17.03</u> If the County determines that the Contractor has made a material misrepresentation or is willfully delinquent or knowingly evasive in the disclosures required by section 120-225, the Contractor and any other business which has substantially the same principal beneficiaries (as defined in section 120-238 of the Wayne County Code), may be debarred by the Purchasing Director, pursuant to Article 6 of Chapter 120 of the Wayne County Code, from competing for any further County contracts for up to three (3) years.
- 17.04 If the Compensation is in excess of \$20,000, or the terms thereof require the approval of the Wayne County Commission, and the Contractor knowingly collaborate in or induces a violation of any of the ethical standards that are set forth in sections 120-223, 120-224, 120-225, 120-228, 120-229, 120-231 or 120-233 of the Wayne County Code, the County has the right to impose any one or more of the following sanctions:
  - A. Immediately terminate the Contract and require the Contractor to pay the County liquidated damages, and not a penalty, of 15% of the total Contract compensation:

- B. Debar or suspend the Contractor from consideration form competing for further
   County contracts; or
- Recover the value transferred or received in breach of the ethical standards by a
   County employee or other person.

#### 18. NON-DISCRIMINATION PRACTICES

#### **18.01** The Contractor must comply with:

- A. Titles VI and VII of the Civil Rights Act (42 U.S.C. §2000d et. seq.) and the United States Department of Justice Regulations (28 C.F.R. Part 42) issued pursuant to those Titles.
- B. The Age Discrimination Act of 1985 (42 U.S.C. §6101-07).
- C. Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. §794).
- D. The Americans with Disabilities Act of 1990 (42 U.S.C. §12101 et. seq.) and its associated regulations.
- E. The Michigan Civil Rights Act (P.A. 1976 No. 453) and the Persons With DisabilitiesCivil Rights Act (P.A. 1976 No. 220).
- F. Article XI of Chapter 120 of the Wayne County Code governing Equal Contracting Opportunity.
- G. Any other appropriate affirmative action provisions as may be required from time to time by the Director of Human Relations of the County. Contractor shall promptly give notice of any such provisions to County during the term of the Contract.

#### **18.02** The Contractor must not:

- A. Refuse to recruit, hire, employ, promote or to bar or discharge from employment an individual, or discriminate against an individual in compensation, terms, conditions or privileges of employment because of race, color, creed, national origin, age, marital status, handicap, sex or sexual orientation, religion, familial status, height or weight.
- B. Limit, segregate, or classify an employee or applicant for employment in a way which deprives or tends to deprive any individual of employment opportunities or otherwise

- adversely affects the employment status of an employee because of race, color, creed, national origin, age, marital status, handicap, sex or sexual orientation, religion, familial status, height or weight.
- C. Print or publish or cause to be printed or published a notice, application, or advertisement relating to employment by the Contractor indicating a preference, limitation, specification, or discrimination based upon race, color, creed, national origin, age, marital status, handicap, sex or sexual orientation, religion, familial status, height or weight.
- D. Except as permitted by rules and regulations promulgated pursuant to section 120-191 of the Wayne County Code, or applicable state or federal law, make or use a written or oral inquiry or form of application that elicits or attempts to solicit information concerning the race, color, creed, national origin, age, marital status, handicap, sex or sexual orientation, religion, familial status, height or weight, of prospective employees. Contractor also shall not make or keep a record of that information or disclose such information.
- E. Make or use a written or oral inquiry or form of application that expresses a preference, limitation or specification based on religion, race, color, creed, national origin, age, height, weight, marital status, handicap, sex, or sexual orientation.
- 18.03 The Contractor must notify any subcontractor of the obligations relative to non-discrimination under this Contract when soliciting the subcontractor. The Contractor will include the provisions of this Article in any subcontract, as well as provide the County with a copy of any subcontract agreement.
- 18.04 The Contractor and its subcontractors must not discriminate against any employee or applicant for employment, training, education, or apprenticeship connected directly or indirectly with the performance of this Contract, with respect to hire, promotion, job assignment, tenure, terms, conditions or privileges of employment because of race, color, creed, national origin, age, marital status, handicap, sex or sexual orientation, religion, familial status, height or weight. This Section does not apply if it is determined by the Division of Human Relations that the requirements are bona fide occupational qualifications reasonably

necessary to perform the duties required for employment. The burden of proof that the occupational qualifications are bona fide is upon the Contractor.

- <u>18.05</u> Breach of any of the covenants in this Article may be regarded as a material breach of this Contract.
- 18.06 Contractor acknowledges the right of the Director of Human Relations to sue to enforce the provisions in this Article of the Contract.
- 18.07 If the Contractor does not comply with the non-discrimination and affirmative action provisions of this Contract, the County may impose sanctions, as it determines to be appropriate, including but not limited to:
  - A. the withholding of payments to the Contractor under this Contract until the Contractor attains compliance;
  - B. cancellation, termination or rescission of this Contract, in whole or in part;
  - disqualification from bidding on future contracts for a period of no more than 3 years;
     and/or
  - referral to Corporation Counsel for consideration of injunction, liquidated damages or other remedies.
  - **18.08** If the Contract is funded, in whole or in part, by federal funds:
    - A. Contractor's breach of the affirmative action commitments set forth in this Article constitutes a material breach of the Contract sufficient to warrant termination and the imposition of liquidated damages as set forth above, based upon the decision of the Director of Human Relations;
    - B. Contractor must provide immediate notice to the County's Chief Executive Officer, the Director of Human Relations, and the Wayne County Commission when a subcontractor who was part of the Contractor's affirmative action commitment is terminated or substantially displaced by a subcontractor who does not qualify as a disadvantaged business enterprise, as that term is defined in section 120-251(21) of the Wayne County Code; and

C. Contractor must establish and implement a good faith plan and goal to eliminate the continuing effects of past discrimination, which is determined by the Division of Human Relations to be appropriate for that purpose, provided the County has been authorized by the funding source to require such an affirmative action commitment from the Contractor.

18.09 In the event that this Contract is or becomes subject to federal or state law which conflicts with the requirements of section Article XI of the Wayne County Code, the provisions of the federal or state law shall apply and the Contract shall be interpreted and enforced accordingly.

#### 19. NOTICES

19.01 All notices, consents, approvals, requests and other communications ("Notices") required or permitted under this Contract must be given in writing and mailed via certified mail/return receipt requested and addressed as follows:

For the County

WAYNE COUNTY BUILDING AUTHORITY

Attention: Owner's Representative: Anthony P. Parlovecchio 500 Griswold, 21<sup>st</sup> Floor Detroit, Michigan 48226

With a Copy to:

Jeffrey M. Sangster **KOTZ, SANGSTER, WYSOCKI AND BERG, P.C.** 400 Renaissance Center, Suite 3400 Detroit, Michigan 48243

For the Contractor:

SOILS AND MATERIALS ENGINEERS, INC.

Attention: Gerald M. Belian 43980 Plymouth Oaks Blvd. Plymouth, Michigan 48170

19.02 All notices are deemed given on the day received. Either party to this Contract may change its address for the receipt of notices at any time by giving notice to the other as provided. Any notice given by

a party must be signed by an authorized representative of such party.

#### 20. **DISPUTE RESOLUTION**

20.01 This Contract, and all actions arising from it, shall be governed by, subject to, and construed according to the law of the State of Michigan. All disputes arising out of or related to this Contract shall be resolved solely in Wayne County Circuit Court, except as provided herein, it being agreed Contractor does business in Wayne County Circuit Court and is subject to jurisdiction of the Wayne County Circuit Court. Notwithstanding the foregoing, at County's sole and exclusive option, any disputes between the parties shall be resolved by arbitration before the American Arbitration Association in accordance with the then current Construction Rules or Commercial Rules, as the case may be of the American Arbitration Association, and any judgment or award issued by the arbitrators shall be final and may be entered in any court having jurisdiction thereof.

#### 21. CONFIDENTIAL INFORMATION

21.01 If the County discloses confidential information to the Contractor's employees pertaining to the County's past, present and future activities, the Contractor must instruct its employees to regard all information gained by each person as a result of the services to be performed as information which is confidential and not to be disclosed to any organization or individual without the prior written consent of the County.

21.02 The Contractor agrees to take appropriate action with respect to its employees to insure that the obligations of nonuse and non-disclosure of confidential information concerning this Contract can be fully satisfied.

#### 22. <u>COMPLIANCE WITH LAWS</u>

- **22.01** The Contractor must comply with and must require its employees to comply with all applicable laws and regulations.
- <u>22.02</u> The Contractor must hold the County harmless with respect to any damages arising from any violations of this Article by it or its employees.

#### 23. CHANGES IN SCOPE/SERVICE

23.01 County may request changes to the scope of Services to be furnished or performed by the Contractor under the Contract, as well as changes in the time of performance of the Contract. All such

changes shall be authorized by either Change Order or Contract Modification.

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- 23.02 If any such change request increases or decreases the Contractor's cost of, or the time required for, performance of any part of the Services under this Contract, an adjustment may be made and the Contract modified in writing accordingly.
- 23.03 Contractor shall provide County with a written proposal to County's change request within five (5) business days of receipt of any such request. Contractor's proposal shall describe in reasonable detail the basis for any proposed price or time adjustment. All cost estimates shall include all completed Services, and cover all costs, expenses, overhead and profit of subcontractors, if any.
- 23.04 Contractor acknowledges that any change in the Compensation represents full compensation for all costs associated with the change request, including delay costs, impacts, acceleration, disruption, consequential damages and any other cost of any nature.
  - 23.05 If the County does not accept the Contractor's proposal, the County may:
    - A. withdraw its change request and hire another contractor;
    - B. modify its change request, in which case the procedures set forth above will apply to the modified change request; or
    - C. issue a Change Order.
- 23.06 Any adjustment in the Compensation shall be computed in the manner as the parties may agree. Failure of the parties to agree to an adjustment shall not excuse the Contractor from proceeding with the Contract as changed, provided the County promptly and duly makes provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the required Services under protest, the Contractor shall not be deemed to have prejudiced any claim for additional compensation, or an extension of the time for completion.
- 23.07 No action, conduct, omission, prior failure or course of dealing by the County shall act to waive, modify, change or alter the requirement that Contract Modifications must be in writing and signed by the County and the Contractor. Contractor further acknowledges that Change Orders and Contract Modifications are the exclusive method for effecting any change to the Contract.
  - 23.08 No change to this Contract is effective unless it is in writing and references this Contract. If

the change is a Contract Modification, it must be signed and acknowledged by duly authorized representatives of both parties. If the change is a Change Order, it must be signed by an authorized representative of the County.

#### 24. <u>DEBARMENT AND SUSPENSION</u>

24.01 The Contractor certifies to the best of its knowledge and belief, that:

- A. The Contractor and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal agency;
- B. The Contractor and its principals have not, within a three-year period preceding this contract, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connections with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under public transaction; violation of Federal or State antitrust statutes, or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- C. The Contractor and its principals are not presently indicted or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in 24.01 b above; and;
- D. The Contractor and its principals have not, within a three-year period preceding this contract, had one or more public transactions (Federal, State or local) terminated for cause or default.
- <u>24.02</u> The certification in this clause is a material representation of fact upon which reliance was placed. When the County determines that the Contractor knowingly rendered an erroneous certification, in addition to other remedies available to the County, the County may terminate this Contract for cause or default.
- 24.03 The Contractor shall provide immediate written notice to the County if, at any time, Contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed

circumstances.

- 24.04 The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "Grantee", "person", "primary covered transaction", "principal", "proposal", and "voluntarily excluded", as used in this clause, have the meaning set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549: 45 CFR Part 76.
- **24.05** The Contractor agrees that it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the County.
- 24.06 The Contractor further agrees that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction", provided by the County, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 24.07 A Contractor may rely upon a certification of a participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A Contractor may decide the method and frequency by which it determines the eligibility of its principals. Each Contractor may, but is not required to, check the Non-procurement List (of excluded parties).
- 24.08 Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- **24.09** If a Contractor is in a covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the County, the County may terminate this transaction for cause or default.

#### 25. PAYMENT OF LIVING WAGE

25.01 The Contractor must pay its work force a living Wage, as defined Section 120-65 of the Procurement Ordinance for the term of the Contract. The Contractor must post a notice of this requirement in

its work place; which notice must state that if the Contractor has failed to comply with the requirements of this Article, an employee may file a notice of noncompliance upon the Compliance Manager. If an employee of the Contractor files a complaint with the Compliance Manager, the Compliance manager shall notify the Contractor to submit proof of compliance within 30 days. Failure of the Contractor to do so shall be grounds for termination of this Contract.

- 25.02 If the Contractor does not comply with the Living Wage provisions of this Contract, the County may impose sanctions, as it determines to be appropriate, including but not limited to:
  - A. Because of the impracticable ability and extreme difficulty of fixing and ascertaining the actual damages which the County would sustain, the imposition of liquidated damages (not a penalty) in the amount of \$50.00 per day, for each day that the Contractor shall fail to comply with said requirements;
  - B. Termination of the Contract, if the Contractor failure to rectify the non-compliance within thirty (30) days from the date of notice of the determination of noncompliance;
  - C. Requiring the Contractor to pay to the employee affected the amount of the deficiency, for each day the violation continues;
  - Withholding of payments to the Contractor under this Contract in amounts necessary to effectuate the payments;
  - E. Refusal to accept any bids or grant applications or requests for a period of five (5) years if the Contractor has failed on two (2) separate occasions to comply with this Article during the previous five (5) year period.
- 25.03 If the auditor determines that the Contractor has violated the Living Wage Ordinance, the County may immediately terminate the Contract and debar the Contractor from bidding on or entering into any contract with the County or from receiving any financial assistance from the County for a period of five years.
- 25.04 Upon execution of this Contract, the Contractor shall file with the County a signed affidavit stating that all employees working under the Contract meet the requirements of the ordinance and shall continue to meet the requirements of this ordinance for the life of the Contract. The affidavit must be signed by the business owner or another designated representative of the Contractor. The Contractor shall maintain

payroll records for all employees and shall preserve them for a period of at least four (4) years. The Contractor shall permit access to job sites and relevant payroll records for authorized County representatives for the purpose of monitoring compliance, investigating employee complaints of non-compliance, and evaluating the operation and effects of the ordinance. In addition to any other sanctions set forth herein, a Contractor who fails to submit documents, declarations or information required to demonstrate compliance shall be deemed by the auditor to be noncompliant or non responsive and shall have Contract payments denied or suspended until compliance is demonstrated.

#### 26. PROMPT PAYMENT

26.01 If the Contractor should subcontract a part of the obligations under this Contract to a business which has been certified by the County's Division of Human Relations as a small or disadvantaged business enterprise, the Contractor shall make prompt payments to each such subcontractor as the subcontract is performed which are at least equal to the prompt payments which are due to the Contractor under the provisions of this Contract. Unless alternate terms which have a similar purpose and effect are otherwise agreed upon in writing, the Contractor shall make payment within 45 days after delivery or satisfaction of the subcontract, or receipt of a complete invoice therefore, whichever is later. If an invoice is filled out incorrectly or contains a defect or impropriety, the Contractor shall notify the subcontractor of that fact within 10 days after receipt of the invoice. The 45 day period shall be extended by each day over 5 days which the subcontractor takes to make a correction. If a payment is past due, the Contractor shall pay to the subcontractor an additional amount to be calculated on a daily basis which is equal to an annual rate of interest of 9% (amount overdue X number of days overdue X .000246575). Interest shall not be due if payment is delayed because of a good faith disagreement between the Contractor and the subcontractor regarding contract performance and the dispute is resolved in favor of the Contractor. This provision is expressly intended to create a third-party right which is legally enforceable by a subcontractor. This provision does not, however, create a duty on the part of the County to seek enforcement of a default of this provision or to make payment to the subcontractor on behalf of the Contractor.

#### 27. <u>SEVERABILITY OF PROVISIONS</u>

27.01 If any provision of this Contract or the application to any person or circumstance is, to any

extent, judicially determined to be invalid or unenforceable, the remainder of the Contract, or the application of the provision to persons or circumstances other than those as to which it is invalid or unenforceable, is not affected and is enforceable.

#### 28. MERGER CLAUSE

**28.01** This document, including the Appendices, contains the entire agreement between the parties and all prior negotiations and agreements are merged in this document. Neither party has made any representations except those expressly set forth. No rights or remedies are, or will be acquired by either party by implication or otherwise unless set forth.

#### 29. ASSIGNMENT

**29.01** The Contractor shall assign this Contract, nor any part, or subcontract any of the work or services to be performed without the County's prior written approval.

#### 30. NONEXCLUSIVE CONTRACT

30.01 At any time and at the County's sole and exclusive option, the County may contract with other firms providing the same or similar services as the Contractor.

#### 31. MISCELLANEOUS

- 31.01 The Contractor covenants that it is not, and will not become, in arrears to the County upon any contract, debt, or any other obligation to the County, including real property and personal property taxes.
  - 31.02 Articles 12, 13, 19, and 21 survive termination of the Contract.
- 31.03 All the provisions of this Contract are "covenants" and "conditions" as though the words specifically expressing or imparting covenants and conditions are used in each provision.
- 31.04 If any Affiliate of the Contractor takes any action which, if done by the Contractor, would constitute a breach of this Contract, the action is deemed a breach by the Contractor. "Affiliate" is a "parent", subsidiary or other company controlling, controlled by or in common control with the Contractor.
- 31.05 Neither party is responsible for force majeure events. If there is a dispute between the parties with regard to what constitutes a force majeure event, the County's reasonable determination is controlling.
- 31.06 Unless the context otherwise requires, the words, "herein", "hereof" and "hereunder", and other words of similar import, refer to this Contract as a whole and not to any particular article, section, or

other subdivision.

- 31.07 The headings of the articles in this Contract are for convenience only and must not be used to construe or interpret the scope or intent of this Contract or in any way affect the Contract.
- 31.08 As used, the singular includes the plural, the plural includes the singular, and the use of any gender is applicable to all genders.
- 31.09 The Contractor warrants that any products sold or processes used in the performance of this Contract do not infringe upon or violate any patent, copyright, trademark, trade secret or any other proprietary rights of any third party. If a third party makes a claim against the County, the County must promptly notify the Contractor. The Contractor must defend the claim in the name of the County, at the Contractor's expense. The Contractor must indemnify the County against any loss, cost, expense or liability arising out of the claim, whether or not the claim is successful.
- 31.10 No failure by a party to insist upon the strict performance of any term of this Contract or to exercise any term after a breach, constitutes a waiver of any breach of term. No waiver of any breach affects or alters this Contract, but every term of this Contract remains effective with respect to any other then existing or subsequent breach.

#### 32. <u>AUTHORIZATION AND CAPABILITY</u>

- 32.01 The Contractor warrants to the County that it has taken all corporate actions necessary for the authorization, execution, delivery and performance of this Contract. It is ready to perform its obligations. The Contractor further warrants that the person signing this Contract is authorized to do so on behalf of the Contractor and is empowered to bind the Contractor to this Contract.
- 32.02 This Contract is effective only upon review and approval by the Charter County of Wayne Building Authority.

#### 33. <u>SIGNATURE</u>

33.01 The County and the Contractor, by their authorized officers and representatives have executed this Contract.

By: W. A/12/2011

CHARTER COUNTY OF WAYNE BUILDING AUTHORITY

Its: Chairman

APPROVED AS TO FORM

By:\_\_\_\_\_\_DEPT OF CORPORATION COUNSEL

# EXHIBIT A



Soil and Materials Engineers, inc. The Kramer Building 43980 Plymouth Oaks Bivd. Plymouth, MI 48170-2584

> tel (734) 454-9900 fax (734) 454-0629 www.sme-usa.com

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James M. Harless, PhD, CHMM
Larry P. Jedele, PE
Cheryl A. Kehres-Dietrich, CGWP
Edward S. Lindow, PE
Gerard P. Madej, PE
Timothy J. Mitchell, PE
Robert C. Rabeter, PE
Daniel O. Roeser, PG

Daniel R. Cassidy, CPG Andrew J. Emmert, CPA Sheryl K. Fountain, SPHR Michael E. Gase, CWI, ASNT III Davie J. Hurtburt, PE Laurel M. Johnson, PE Jeffery M. Krusinga, PE, GE Michael S. Meddock, PE Mark L. Michener, LEED GA, CDT Louis J. Northouse, PE Joel W. Rinkel, PE Jason A. Schwartzenberger, PE Larry W. Shook, P.E. Thomas H. Skotzke Michael J. Thelen, PE John C. Zarzecki, CET, CDT, NDE

June 29, 2011

Mr. Ron Moran AECOM/Ghafari 17101 Michigan Avenue Dearborn, Michigan 48226

Via email: rmoran@ghafari.com

RE: Confirmation for Supplemental Geotechnical Services - Earthwork Wayne County Justice Center Consolidated Central Detention Center Project Detroit, Michigan SME Project No. PG63295

REF: SME Proposal No. P11-0309, dated April 1, 2011
Geotechnical Evaluation Report by SME, dated May 12, 2011

Dear Mr. Moran:

This confirmation letter for supplemental geotechnical services is based on our design team meeting on June 15, 2011, our conversations with Ghafari and Blaze personnel, and services provided to date.

Additional consulting and geotechnical-related field services will be provided by SME. The additional consulting and field testing services are based on the conditions encountered at the site and the engineering recommendations provided by SME regarding:

- 1. Construction over undocumented fill, which carries with it an elevated risk of settlement.
- 2. The accelerated "subsurface package" schedule that will include earthwork operations to be substantially completed prior to the County's engaging of a construction manager/general contractor.

#### Task 1: Supplemental Engineering and Consulting Services

The SME Project Engineer and Project Manager will provide additional consultation as needed related to preparation of bid documents, specifications, and additional details related to earthwork operations to be provided by Blaze Contracting, Inc.

OFFICES Indiana Michigan Ohlo Our fee estimate assumes additional consulting and engineering over the 45 days of the projects' schedule. Our fees will be assessed on a time and materials basis in accordance with the attached fee schedules. For budgeting purposes, we recommend a fee estimate of \$12,000 for supplemental engineering and consulting.

#### Task 2: Earthwork Operations

SME will provide subgrade review (verification of suitable subgrade and observation of prooficels) during mass undercutting excavations. We will also provide services related to density testing of engineered fill, and laboratory services (modified Proctor tests and organic content testing) related to subgrade preparation and fill placement. Where feasible, we will provide one SME staff engineer to provide services during the earthwork removal phase of construction and an engineering technician during replacement phase. The two phases are to be concurrent. However, depending upon the number of earthwork crews on site and/or the pace at which work proceeds, we anticipate it could be necessary to provide a third person [staff engineer]. Daily rate (based on 10-hours on site) is provided below:

One SME Field Engineer and one SME Engineering Technician:

\$1,750

Our fees assume up to 8 modified Proctor tests, daily use of nuclear density gauge, travel time and mileage, and a limited amount of project management. Attendance at meetings is not included in the daily rates provided above. If a third team member [staff engineer] is required, our fees will be as assessed at a rate of \$1000 per day.

Based on an anticipated minimum earthwork schedule of 45 days, our fee estimate for the earthwork operations is \$78,000. Daily rates for less than 10 hours on site will be pro-rated based on the rates provided, which is consistent with invoicing for the geotechnical test pits performed during the evaluation phase of the project. Conversely, if longer days or weekend work is required, the appropriate overtime rates would apply. Additionally, if more or fewer than 8 Modified Proctors are performed during the earthwork phase of the project, a debit or credit of \$150 per Proctor will be provided.

Our services will be provided in accordance with our current contract. For our records, please sign and date this confirmation where indicated below and return one copy proposal to SME. If you have questions concerning this confirmation, please contact us.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Laurel M. Johnson, PE Senior Project Engineer

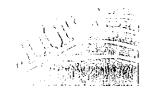
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Gerald M. Belian, PE Vice President/Principal

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Wayne County Justice Center Detroit, Michigan	s - Earthwork	SME Project No. PG6329 June 29, 2011 – Page
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Signature:		
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> loi (734) 454-9900 fax (734) 454-0629 www.sme-usa.com

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June 29, 2011

Mr. Ron Moran AECOM/Ghafari 17101 Michigan Avenuc Dearborn, Michigan 48226

Via email: rmoran@ghafari.com

RE: Confirmation for Supplemental Geotechnical Services – Drilled Piers Wayne County Justice Center

Consolidated Central Detention Center Project

Detroit, Michigan

SME Project No. PG63295

REF: SME Proposal No. P11-0309, dated April 1, 2011

Geotechnical Evaluation Report by SME, dated May 12, 2011

Dear Mr. Moran:

This confirmation letter for supplemental geotechnical services is based on our design team meeting on June 15, 2011, our conversations with Ghafari personnel, and services provided to date.

Because a higher than typical end-bearing pressure for the drilled piers were provided by SME based on previous experience and specialized insitu testing provided on nearby sites and because a drilled pier contractor may be contracted and work may begin prior to the County's engaging a project manager, supplemental geotechnical services related to construction will be provided by SME.

#### Task 1: Supplemental Engineering and Consulting Services

The SME Project Engineer and Project manager will provide additional consultation as needed related to the preparation of bid documents, specifications and additional details related to foundation operations to be provided by a drilled pier contractor [yet to be selected]. Our fee estimate also assumes additional consulting and engineering over the 50 plus days of project work. Our fees will be assessed on a time and materials basis in accordance with attached fee schedules. For budgeting purposes, we recommend a fee estimate of \$13,000 for supplemental engineering and consulting.

OFFICES Indiana Michigan Ohio

#### **Task 2: Drilled Pier Foundation Operations**

SME will observe the installation of drilled piers, including reviewing casing, near-surface "obstructions" or other delays in drilling, slurry, and reinforcing steel installation, verifying suitable bearing soils are reached, recording time related to removal of boulders and other obstructions, recording shaft diameter, plumbness, and alignment, monitoring of concrete placement to verify proper placement methods, and field and laboratory testing of the concrete.

Where possible, we will utilize two field/staff engineers for the project; however, depending upon the number of foundation crews on site, their relative locations (for example 1 crew north of Mullet and 1 crew south of Mullet) an additional SME team member, and engineering technician, could be required to adequately observe and monitor foundation construction.

Daily rate (based on 10-hours on site) are provided below:

Two SME Field Engineers:

\$2,450

Our fees assume 6 sets of four (4) concrete test cylinders daily, daily use of a camera, travel time and mileage, and a limited amount of project management. Attendance at meetings is not included in the daily rate provided above. .

Based upon an anticipated minimum drilled pier schedule of 52 days, our fee schedule for the drilled pier operations is \$127,000. Daily rates for less than 10 hours on site will be pro-rated based on the rates provided, which is consistent with invoicing for the geotechnical test work performed during the evaluation phase of the project. Conversely, if longer days or weekend work is required, the appropriate over time rates would apply.

#### AUTHORIZATION

Our services will be provided in accordance with our current contract. For our records, please sign and date this confirmation where indicated below and return one copy proposal to SME. If you have questions concerning this confirmation, please contact us.

Very truly yours,

SOIL AND MATERIALS ENGINEERS, INC.

Laurel M. Johnson, PE

Senior Project Engineer

Kin L. Wil 1808

Gerald M. Belian, PE Vice President/Principal

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Wayne County Justice Center Detroit, Michigan		June 29, 2011 Page 3
Name: (Please Print)	Date:	
Signature:		
Firm:		
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#### FEE SCHEDULE PERSONNEL AND EXPENSES

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LEGOTTED	
Technician I	Per Hour 40.00
Technician II	Per Hour 48.00
Technician III	Per Hour 55.00
Technician IV	Per Hour 65.00
NDT Technician	Per Hour 75.00
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Minimum 4 Hours Per Day for Teclinicians	
Field Engineer/Geologist	Per Hour 70.00
Staff Engineer/Geologist, Materials Specialist, Environmental Specialist	Per Hour 80.00
Senior Engineer/Geologist, Senior Materials Specialist, Senior Environmental Special	ist Per Hour 95.00
Project Engineer/Consultant, Materials Consultant	Per Hour 110.00
Senior Project Engineer/Consultant, Project Manager	Per Hour 135.00
Senior Consultant, Senior Project Manager, Certified Industrial Hygienist	Per Hour 155.00
Principal Consultant	Per Hour 185.00
Laboratory Technician	Per Hour 65.00
CAD	Per Hour 75.00
Drafter	Per Hour 60.00
Log Processor	Per Hour 55.00
Word Processing, Administrative Assistant	Per Hour 48.00
Communication Fee (Postage, Shipping, Faxes, Cell Phones, etc)	
Expert Testimony and Depositions (including preparation time)Premi	um of 50% added to hourly rate
Overtime rate (Applies to all work in excess of 8 hours per day,	
hefore 8:00 am or after 5:00 nm Monday through Friday or	
anytime Saturday, Sunday, or Holiday)	Standard Rate x 1.5
TRANSPORTATION AND EXPENSES	
Transportation Charge, SME or Private Vehicle	Per Mile 0.65
Lodging, Subsistence, Out-of-town Travel	At Cost + 20%
Subcontract Expenses, Equipment Rental	At Cost + 20%
Direct Expenses (Pilm, Photos, Prints, Permits, Maps, etc).	At Cost + 20%
Extra Copies of Report (normal distribution is 3 copies)	Per Copy 50.00
Blueprints	
Blueprint Sepia	
Other Services including Drilling, Special Equipment use, and	
Special Laboratory Testing	See Appropriate Fee Schedule
Ahrens ware and a sound amount	• •

Other services not listed will be provided upon request

#### **GENERAL NOTES**

- 1. Hourly rates will be charged for time spent in the interest of the project, in preparation of reports, as well as travel time to and from the job site. Fees for laboratory tests include reporting of routine results without comments, recommendations or conclusions. Discussion, interpretation, and consultation are charged at appropriate hourly rates.
- 2. SME representatives may provide observation and field-testing. The scope of services does not include job or site safety, supervision, or direction of the actual work of the contractor. The presence of SME on the job site should not be construed to relieve the contractor in any way of his obligations and responsibilities under the construction contract.
- 3. SME General Conditions govern all the work performed.



FS:0 (01/10) Page 1 of 1 Effective Date January 1, 2010 through December 31, 2010

consultants in the geosciences, materials, and the environment

# FEE SCHEDULE GEOTECHNICAL ENGINEERING SERVICES SEBESO FOR STAFF RATES

DRILLING		
Mobilization of drill rig and two-man crew on and off site	Per Mile-Each Way	3,75
	Minimum Charge	475.00
Mobilization of all-terrain drill rig and two-man crew on and off	sitePer Mile-Each Way	3.7:
	Minimum Charge	475.00
Charge for all-terrain drill rig	Per Day	400.00
Out of town living expenses for drill crew	***************************************	At Cost + 20%
Equipment required to complete investigation, i.e. bulldozer, back	dioe,	
subcontract drill rigs, water permits and charges, access fees,	tools.	At Cost + 20%
Drilling with split-barrel soil sampling (ASTM D-1586). Semi-c	continuous to 10'. & 5' intervals ther	eafter.
0' to 20'	Per Foot	12.00
20' to 40'	Per Foot	13.00
40' to 60'	Per Foot	15.00
60' to 80'	Per Foot	17 00
80' to 120'	Per Foot	21.00
Special situations, or drilling below 120'	Rate Avails	able on Reques
Hard soil drilling (blows per foot greater than 60)	Standard B	late Times 1 2
2" split-barrel sampling in addition to normal 5' intervals below 1	0'	tato i into 1,2,
10' to 50'		40.00
50' to 100'	Fach	50.0
Additional charge for Shelby tube samples (0 - 50')		
2 inch	Fach	35 W
3 inch	Fach	
Auger sampling without split-spoon or Shelby tube (0' - 20')	Per Foot	M.O
Auger drilling thru concrete	Standard Hourly Rate it ner fi	
Rock coring (0' – 20') – \$150 set-up plus	Per Foot	ooi (auuii) ioo A S N
Pavement Coring	Fork	10.CF
Grout boreholes – bentonite pellets	Per Foot	
- bentonite/cement slurry (\$50 Set-up plus)	Par Root	
2" diameter PVC pipe	Per Root	7.V.
2" diameter PVC well screen – 5' length	Fach	
Traffic Control Signage: non-freeway (8 signs maximum)	Der Day	226 A
Lighted Arrow Board	Per Dou	
Other materials	C. Day	142.U
	. 44 1 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Al Cost + 207
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Hourly charge for drill rig and crew, for location of borings, in specialized in-situ testing, phone calls, standby time, clearing acceptanting water, drilling through obstructions, etc	ess, utility clearance, sito clean-up, Per Hour Rate Availabl Rate Availabl Per Day Per Day Bach Bach	hourly drilling
Hourly charge for drill rig and crew, for location of borings, in specialized in-situ testing, phone calls, standby time, clearing acceptanting water, drilling through obstructions, etc	ess, utility clearance, site clean-up, Per Hour Rate Availabl Rate Availabl Per Day Per Day Bach Bach Per Sample	hourly drilling
Hourly charge for drill rig and crew, for location of borings, in specialized in-situ testing, phone calls, standby time, clearing acceptanting water, drilling through obstructions, etc	ess, utility clearance, sito clean-up, Per Hour Rate Availabl Rate Availabl Per Day Per Day Bach Bach Per Sample	hourly drilling
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Hourly charge for drill rig and crew, for location of borings, in specialized in-situ testing, phone calls, standby time, clearing acceptanting water, drilling through obstructions, etc.  Pressuremeter	ess, utility clearance, site clean-up, Per Hour Rate Availabl Rate Availabl Per Day Per Day  Bach Bach Per Sample Per Sample Bach Bach Bach Bach Bach Bach Bach Bach	hourly drilling
Hourly charge for drill rig and crew, for location of borings, in specialized in-situ testing, phone calls, standby time, clearing acceptabilities and the content of the c	ess, utility clearance, site clean-up, Per Hour Rate Availabl Rate Availabl Per Day Per Day  Each Each Per Sample Per Sample Each Each Each Each Each Each Each Each	hourly drilling



#### LABORATORY (continued)

Loss by Wash	Each	60.00
Organics Content (Loss on Ignition)		
Permeability Test of Liner Sample	Lach	275.00
Permeability Test of Compacted Sample	Each	
Consolidation Test on 2 1/2" Dia. Specimen w/pressure-strain curve	Each	450.00
Modified Proctor (ASTM D-1557) 4-inch mold	Each	140.00
California Bearing Ratio (CBR)	Each	250.00
Double-Ring Infiltrometer Test	Each	50.00
Direct Shear Test (Sands - one density at three confining pressures)		
Direct Shear Test (Other Soils)	** * * * * * * * * * * * * * * * * * * *	Rate Available on Request
Triaxial Strength Testing		

#### **GENERAL NOTES**

- Preliminary engineering reconnaissance, location of borings, utility clearance by contacting MISS DIG and/or
  meeting with utility staff at the site, clevations at borings, engineering analysis, recommendations, consultation,
  meetings, or project management are charged at the appropriate hourly rate.
- 2. The Owner will provide for right of entry of SME and all necessary equipment, in order to complete the work. While SME will take reasonable precautions to reduce the likelihood of damage to the property, it is understood by Client and Owner that some damage may occur in the normal course of our work. The fee for correction of this damage is not part of this agreement unless specifically noted.
- 3. While working SME will take reasonable precautions to avoid damage or injury to subterranean structures or utilities. The Client and Owner agree to hold SME harmless for any damages to subterranean structures, which are not called to SME's attention and/or not correctly shown on the plans furnished.
- 4. The accuracy and proximity of provided survey control will affect the accuracy of in-situ test location and elevation determinations. Unless otherwise noted, the accuracy of test locations and elevations will be commensurate only with pacing and approximate measurements or estimates. The client will furnish SMB with a diagram indicating the location of the site. Boring and test locations may also be indicated on the diagram. SME reserves the right to deviate a reasonable distance from the boring and test locations unless this right is specifically revoked by the client in writing at the time the diagram is supplied. SMB reserves the right to modify this contract if conditions preventing drilling at the specified locations are encountered which were not made known to SME prior to the date of this contract.
- 5. Client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by SME and that the data, interpretations and recommendations of SME are based solely on the information available to SME. SME will not be responsible for the data, interpretation and recommendations by others of the information developed.
- 6. Certain types of hazardous materials including subsurface contaminants and biological pollutants (molds, spores, bacteria, fungi and other byproducts of biological organisms) may exist at a site where there is no reason to believe they could or should be present. SME and Client agree that the discovery of unanticipated hazardous materials constitutes a changed condition mandating renegotiation of the scope of work and fees. SME and Client also agree that the discovery of unanticipated hazardous materials may make it necessary for SME to take immediate measures to protect human health and safety, and/or the environment. SME agrees to notify Client as soon as practically possible should unanticipated hazardous materials or suspected hazardous materials be encountered. Client encourages SME to take any and all measures that in SME's professional opinion are justified to preserve and protect the health and safety of SME's personnel and the public, and/or environment, and Client agrees to compensate SME for the additional cost of such work. In addition, Client and Owner waive any claim against SME and agree to indemnify, defend and hold SME harmless from any claim or liability for injury or loss arising from or caused by the presence of, or exposure of SME, Client, or any third party to unanticipated hazardous materials or suspected hazardous materials, except to the extent caused by SME's sole negligence. Client agrees to compensate SME for time spent and expenses incurred by SME in defense of any such claim. Compensation to be based upon SME's prevailing fee schedule and expense reimbursement policy.
- SME will retain all soil and rock samples for 30 days. Further storage or transfer of samples can be made at Owner's expense upon written request.



## FEE SCHEDULE ENGINEERED MATERIALS SERVICES SEEFS: 0 FOR STAFF RATES

Use of Coring Machine and Generator.	EQUIPMENT		
Use of Coring Machine and Generator		Per Day	160.00
Mobilization of drill rig and two man crew on and off site  Per Mile-Each Way  3.75  Mobilization of all-terrain drill rig and two man crew on and off site  Per Mile Each Way  3.75  Charge for all terrain drill rig  Per Day  A00.00  Use of Drill Rig and two-man crew  Per Hour  185.00  Centrifuge Extractor for Asphalt Batch Plant  Per Day  8.00  Per Day  8.00  Per Day  100.00  Cops of Engineers DCP  Per Day  100.00  Resistivity Moisture Meter  Per Day  30.00  Resistivity Moisture Meter  Per Day  30.00  Resistivity Moisture Meter  Per Day  30.00  Field Maximum Density Equipment  Per Week  200.00  Field Maximum Density Equipment  Per Day  35.00  Field Maximum Density Equipment  Per Week  150.00  Field Maximum Density Equipment  Per Week  150.00  Field Maximum Density Equipment  Per Week  150.00  Field Maximum Density Equipment  Per Wooth  Field Maximum Density Equipment  Per Day  100.00  Field Maximum Density Equipment  Per Week  150.00  Field Maximum Density Equipment  Per Day  100.00  Field Maximum Density Equipment  Per Week  150.00  Field Maximum Density Equipment  Per Wooth  Field Per Day  100.00  Field Maximum Density Equipment  Per Day  100.00  Field Maximum Density Equipment  Per Wooth  Per Day  100.00  Field Maximum Density Equipment  Per Wooth  Per Day  100.00  Field Maximum Density Equipment  Per Wooth  Per Day  100.00  Per Day  100.00  Field Maximum Density Equipment  Per Day  100.00  Field Maximum Density Equipme			
Minimum Charge.   475.00	Plus bit wear for concrete (0 - 12" thick)		25.00
Minimum Charge.   475.00	Mobilization of drill rig and two man crew on and off site	Per Mile-Each Way	3.75
Mobilization of all-terrain drill rig and two man crew on and off site   Per Mile Each Way   3.75			
Charge for all terrain drill rig	Mobilization of all-terrain drill rig and two man crew on and off site		
Charge for all terrain drill rig	•		
Use of Drill Rig and two—man crew	Charge for all terrain drill rig		
Centrifuge Extractor for Asphalt Batch Plant.   Per Day   30.00			
Per Day   30.00			
Corps of Engineers DCP			
Muck Probe   Per Day   \$0.00			
Resistivity Moisture Meter			
Nuclear Density - Moisture Meter   Per Day   50,00			
Per Week			
Per Month	,		
Field Maximum Density Equipment			
Field Maximum Density Equipment	•		
Field Maximum Density Equipment			
Windsor Probe         Per Day         105.00           Windsor Probe Shot Costs         Each         12.00           Profilometer for Floor Flatness (manual)         Per Day         150.00           Profilometer for Floor Flatness (computerized)         Per Day         200.00           FWD (Falling Weight Deflectometer)         Per Day         1,500.00           FWD (Falling Weight Deflectometer)         Per Hour (Min. 2 Hours)         300.00           Mobilization of FWD         Per Mile Each Way         3.00           Molimum Mobilization Charge         300.00           Profilometer         Per Day         600.00           Power Hand Auger         Per Day         110.00           Survey Equipment (total station)         Per Day         160.00           (rod & level)         Per Day         110.00           Benkleman Beam         Per Day         110.00           GPS RTK Unit         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         600.00           R-Meter         Per Day         100.00           Infrared Thermography         Per Day         75.00           Magnetic Particle – Yoke Method <t< td=""><td></td><td></td><td></td></t<>			
Windsor Probe Shot Costs         Each         12.00           Profilometer for Floor Flatness (manual)         Per Day         150.00           FrOfilometer for Floor Flatness (computerized)         Per Day         200.00           FWD (Falling Weight Deflectometer)         Per Day         1,500.00           FWD (Falling Weight Deflectometer)         Per Hour (Min. 2 Hours)         300.00           Mobilization of FWD         Per Mile Each Way         3.00           Minimum Mobilization Charge         Per Day         600.00           Power Hand Auger         Per Day         110.00           Survey Equipment (total station)         Per Day         160.00           (rod & level)         Per Day         110.00           GPS RTK Unit         Per Day         100.00           GPS RTK Unit         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         200.00           GPS Unit (with sub-meter assembly)         Per Week         800.00           GPS Unit (with sub-meter assembly)         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         100.00           Infrared Thermography         Per Day         500.00           Infrared Thermography         Per Day         45.00 <td></td> <td></td> <td></td>			
Profilemeter for Floor Flatness (manual)			
Profilemeter for Floor Flatness (computerized)			
FWD (Falling Weight Deflectometer)         Per Day         1,500.00           FWD (Falling Weight Deflectometer)         Per Hour (Min. 2 Hours)         300.00           Mobilization of FWD         Per Mile Each Way         3.00           Minimum Mobilization Charge         300.00           Profilometer         Per Day         600.00           Power Hand Auger         Per Day         110.00           Survey Equipment (total station)         Per Day         160.00           (rod & level)         Per Day         30.00           Benkleman Beam         Por Day         110.00           GPS RTK Unit         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         200.00           GPS Unit (with sub-meter assembly)         Per Day         100.00           GPS Unit (with sub-meter assembly)         Per Month         2,500.00           R-Motor         Per Day         100.00           Infrared Thermography         Per Day         600.00           Torque Wrench         Per Day         45.00           Magnetic Particle – Yoke Method         Per Day         45.00           Ultrasonic Testing Flaw Detector         Per Day         600.00           Phased Array UT         Per Day			
FWD (Falling Weight Deflectometer)			
Mobilization of FWD         Per Mile Each Way         3.00           Minimum Mobilization Charge         300.00           Profilometer         Per Day         600.00           Power Hand Auger         Per Day         110.00           Survey Equipment (total station)         Per Day         30.00           (rod & level)         Per Day         30.00           Benkleman Beam         Per Day         110.00           GPS RTK Unit         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         200.00           GPS Unit (with sub-meter assembly)         Per Week         800.00           GPS Unit (with sub-meter assembly)         Per Month         2,500.00           GPS Unit (with sub-meter assembly)         Per Day         100.00           R-Meter         Per Day         600.00           R-Meter         Per Day         600.00           Infrared Thermography         Per Day         600.00           Torque Wrench         Per Day         45.00           Ultrasonic Testing Flaw Detector         Per Day         200.00           Hydraulic Load Test Equipment         Per Day         600.00           Pulse Radar         Per Day         600.00           UPV			
Minimum Mobilization Charge         300.00           Profilometer         Per Day         600.00           Power Hand Auger         Per Day         110.00           Survey Equipment (total station)         Per Day         160.00           (rod & level)         Per Day         30.00           Benkleman Beam         Per Day         110.00           GPS RTK Unit         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         200.00           GPS Unit (with sub-meter assembly)         Per Week         800.00           GPS Unit (with sub-meter assembly)         Per Month         2,500.00           R-Meter         Per Day         100.00           Infrared Thermography         Per Day         600.00           Torque Wrench         Per Day         75.00           Magnetic Particle – Yoke Method         Per Day         45.00           Ultrasonic Testing Flaw Detector         Per Day         200.00           Hydraulic Load Test Equipment         Per Day         600.00           Pulse Radar         Per Day         600.00           Plased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00 </td <td></td> <td></td> <td></td>			
Profilometer			
Power Hand Augor			
Survey Equipment (total station)   Per Day   160.00			
(rod & level)         Per Day         30.00           Benkleman Bearn         Por Day         110.00           GPS RTK Unit         Per Day         500.00           GPS Unit (with sub-meter assembly)         Per Day         200.00           GPS Unit (with sub-meter assembly)         Per Week         800.00           GPS Unit (with sub-meter assembly)         Per Month         2,500.00           R-Meter         Per Day         100.00           Infrared Thermography         Per Day         600.00           Torque Wrench         Per Day         75.00           Magnetic Particle - Yoke Method         Per Day         45.00           Ultrasonic Testing         Flaw Detector         Per Day         100.00           Hydraulic Load Test Equipment         Per Day         200.00           Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Pulse Velocity (UPV)         Per Day         250.00           Uitrasonic Impact Echo         Per Day         250.00			
Benkleman Beam       Por Day       110.00         GPS RTK Unit       Per Day       500.00         GPS Unit (with sub-meter assembly)       Per Day       200.00         GPS Unit (with sub-meter assembly)       Per Month       2,500.00         GPS Unit (with sub-meter assembly)       Per Day       100.00         R-Meter       Per Day       600.00         Infrared Thermography       Per Day       75.00         Magnetic Particle − Yoke Method       Per Day       45.00         Ultrasonic Testing       Flaw Detector       Per Day       100.00         Hydraulic Load Test Equipment       Per Day       200.00         Pulse Radar       Per Day       600.00         Phased Array UT       Per Day       600.00         UPV with Spectral Analysis of Surface Waver (SASW)       Per Day       600.00         Ultrasonic Puise Velocity (UPV)       Per Day       400.00         Uitrasonic Impact Echo       Per Day       250.00			
GPS RTK Unit       Per Day       500.00         GPS Unit (with sub-meter assembly)       Per Day       200.00         GPS Unit (with sub-meter assembly)       Per Week       800.00         GPS Unit (with sub-meter assembly)       Per Month       2,500.00         R-Meter       Per Day       100.00         Infrared Thermography       Per Day       600.00         Torque Wrench       Per Day       75.00         Magnetic Particle − Yoke Method       Per Day       45.00         Ultrasonic Testing       Flaw Detector       Per Day       100.00         Hydraulic Load Test Equipment       Per Day       200.00         Pulse Radar       Per Day       600.00         Phased Array UT       Per Day       600.00         UPV with Spectral Analysis of Surface Waver (SASW)       Per Day       600.00         Ultrasonic Puise Velocity (UPV)       Per Day       400.00         Uitrasonic Impact Echo       Per Day       250.00			
GPS Unit (with sub-meter assembly)       Per Day       200.00         GPS Unit (with sub-meter assembly)       Per Week       800.00         GPS Unit (with sub-meter assembly)       Per Month       2,500.00         R-Meter       Per Day       100.00         Infrared Thermography       Per Day       600.00         Torque Wrench       Per Day       75.00         Magnetic Particle − Yoke Method       Per Day       45.00         Ultrasonic Testing       Flaw Detector       Per Day       100.00         Hydraulic Load Test Equipment       Per Day       200.00         Pulse Radar       Per Day       600.00         Phased Array UT       Per Day       600.00         UPV with Spectral Analysis of Surface Waver (SASW)       Per Day       600.00         Ultrasonic Puise Velocity (UPV)       Per Day       400.00         Uitrasonic Impact Echo       Per Day       250.00			
GPS Unit (with sub-meter assembly)       Per Week.       800.00         GPS Unit (with sub-meter assembly)       Per Month       2,500.00         R-Meter       Per Day       100.00         Infrared Thermography       Per Day       600.00         Torque Wrench       Per Day       75.00         Magnetic Particle − Yoke Method       Per Day       45.00         Ultrasonic Testing       Flaw Detector       Per Day       100.00         Hydraulic Load Test Equipment       Per Day       200.00         Pulse Radar       Per Day       600.00         Phased Array UT       Per Day       600.00         UPV with Spectral Analysis of Surface Waver (SASW)       Per Day       600.00         Ultrasonic Puise Velocity (UPV)       Per Day       400.00         Ultrasonic Impact Echo       Per Day       250.00			
GPS Unit (with sub-meter assembly)         Per Month         2,500.00           R-Motor         Per Day         100.00           Infrared Thermography         Per Day         600.00           Torque Wrench         Per Day         75.00           Magnetic Particle - Yoke Method         Per Day         45.00           Ultrasonic Testing         Flaw Detector         Per Day         100.00           Hydraulic Load Test Equipment         Per Day         200.00           Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Puise Velocity (UPV)         Per Day         400.00           Uitrasonic Impact Echo         Per Day         250.00			
R-Motor         Per Day         100.00           Infrared Thermography         Per Day         600.00           Torque Wrench         Per Day         75.00           Magnetic Particle - Yoke Method         Per Day         45.00           Ultrasonic Testing         Flaw Detector         Per Day         100.00           Hydraulic Load Test Equipment         Per Day         200.00           Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Puise Velocity (UPV)         Per Day         400.00           Uitrasonic Impact Echo         Per Day         250.00			
Infrared Thermography			
Torque Wrench         Per Day         75.00           Magnetic Particle - Yoke Method         Per Day         45.00           Ultrasonic Testing         Flaw Detector         Per Day         100.00           Hydraulic Load Test Equipment         Per Day         200.00           Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Pulse Velocity (UPV)         Per Day         400.00           Ultrasonic Impact Echo         Per Day         250.00			
Magnetic Particle - Yoke Method         Per Day         45.00           Ultrasonic Testing         Flaw Detector         Per Day         100.00           Hydraulic Load Test Equipment         Per Day         200.00           Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Pulse Velocity (UPV)         Per Day         400.00           Ultrasonic Impact Echo         Per Day         250.00			
Ultrasonic Testing         Flaw Detector         Per Day         100.00           Hydraulic Load Test Equipment         Per Day         200.00           Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Pulse Velocity (UPV)         Per Day         400.00           Ultrasonic Impact Echo         Per Day         250.00			
Hydraulic Load Test Equipment			
Pulse Radar         Per Day         600.00           Phased Array UT         Per Day         600.00           UPV with Spectral Analysis of Surface Waver (SASW)         Per Day         600.00           Ultrasonic Pulse Velocity (UPV)         Per Day         400.00           Ultrasonic Impact Echo         Per Day         250.00			
Phased Array UT			
UPV with Spectral Analysis of Surface Waver (SASW) Per Day 600.00 Ultrasonic Pulse Velocity (UPV) Per Day 400.00 Ultrasonic Impact Echo 250.00			
Ultrasonic Pulse Velocity (UPV)	IIPV with Spectral Analysis of Surface Waver (SASW)	Per Day	ሰብ በብእ
Ultrasonic Impact Echo			
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#### LABORATORY

Concrete		
Grout Cylinder Testing	Each	14.00
Compressive Strength of Concrete Cylinders - Made by SME	Each	14.00
- Made by Others	Each	20.00
Compressive Strength of Concrete Cores	Each	65.00
Flexural Strength of Concrete Beams.	Each	<b>75.0</b> 0
Concrete Mix Design (normal weight) and Trial Batch	Each	450.00
Concrete Floor Moisture Kit	Each	30.00
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Soil/Aggregates		
Lightweight Particles in Aggregate (ASTM C-33)	Each	90.00
Clay Lumps Friable Particles	Fach	50.00
Laboratory Proctor Test (ASTM 1557 or 698) – 4 inch mold	Fach	140.00
Laboratory Proctor Test (ASTM 1557 or 698) – 6 inch mold	Fach	160.00
Clay Proctor Sample Preparation	Fach	60.00
One-Point Proctor	Fach	70.00
Sieve Analysis	Fach	60.00
Loss by Wash	Each	60.00
Specific Gravity of Aggregates, with Absorption	Each	70.00
Specific Gravity of Aggregates, with Absorption	Ettiil	70.00
Organic Impurities.	Cacii	
Organic Content	CBCA	
Unit Weight of Fine or Coarse Aggregate	Each	775 00
Soundness of Aggregate (5 cycle)	Each	223.00
Crushed Content	Each	70.00
Deleterious Pick	Each	
Atterberg Limits (LL + PL)	Each	125.00
Hydrometer Analysis	Each	123.00
Permeability Test of Liner Sample	Each	275.00
Permeability Test of Compacted Sample	<u>E</u> ach	323.00
Coarse Aggregate Test (ASTM C-33)	<u> </u>	950.00
Fine Aggregate Test (ASTM C-33)	Each	650.00
Swell Test	Each	300.00
Unconsolidated Undrained Triaxial	Each	150.00
Consolidated Drained Triaxial	Each	300.00
Alkali Reactivity of Aggregates (ASTM C-1567)	Each	625.00
Bituminous		
Bituminous Mix Design - 4 Point Marshall Method	Each	900.00
Rituminous Mix Design-3 Point Marshall Method	Each	675.00
One-Point Mix Verification	, Each	350.00
Marshall Stability and Flow Test (molded samples)	Per Sample	90.00
MDOT Submittal for Marshall Design	Each	2,000.00
Density of Compacted Asphalt Sample	Per Sample	45.00
Theoretical Maximum Density (Rice Method)	Each	90.00
Extraction/Gradation of Bituminous Concrete	Each	175.00
Asphalt Cement Content Only	Each	90.00
Penetration of Bituminous Material	Each	85.00
Abson Recovered Penetration with extraction/gradation	Each	300.00
Abson Recovered Penetration without extraction/gradation	Each	225.00
Concrete Masonry Units		
Compressive Strength - Gross Area/Net	3 Block Set	300.00
Absorption	3 Block Set	200.00
Dimensional Review	3 Block Set	150.00
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Concrete Masonry Units (continued)		
Linear Shrinkage	3 Block Set	450.00
Compressive Strength of Prism - Hollow	Each prism	300,00
- Solid (Grouted)	Each prism	400.00
Freeze-Thaw Testing (100 cycles)	5 Block Set	850.00
Freeze-Thaw Testing (additional 50 cycles)	5 Block Set	550.00
Freeze-Thaw Testing (Canadian Method 50 cycles)	5 Block Set	500.00
110070-11104 1 could formation to the state of the state		•
<u>Brick</u>		
Compressive Strength	5 Brick Set	250.00
Modulus of Runture for Pavine Brick	., 5 Brick Set	250.00
Absorption Resigned Saturation Coefficient	5 Brick Set	300.00
- Initial Rate (Lab method)	5 Brick Set	150.00
Efflorescence	5 Brick Set	300.00
Dimensional Review	10 Brick Set	150.00
Freeze-Thaw Testing (50 cycles)	5 Brick Set	800.00
tions time reging for absent		
Retaining Wall Masonry Units		
Compressive Strength	3 Block Set	450.00
Absorption	3 Block Set	250.00
Freeze-Thaw Testing (100 cycles)	5 Block Set	750.00
Paver Brick		
Compressive Strength	Each	50.00
Absorption	Each	
Freeze-Thaw Testing (50 cycles)	5 Block Set	500.00
Grout/Mortar		25.00
Compressive Strength - 2" x 2" Cubes	Each	35.00
- 3" x 3" x 6" Specimen	Each	45.00
Splitting Tensile - 3" x 6" Cylinders	Each	
Mortar Aggregate Ratio	<u>E</u> ach	125.00
Quantitative Analysis of Hardened Mortar (Historical/Mix)	Each	1,700.00
Roofing		
	Ph1.	200 00
Built-up Roof Test Cut Analysis (ASTM D-2829) with aggregate	Each	226.00
Built-up Roof Test Cut Analysis (ASTM D-3617) without aggregate	L:ACN	100.00
Thermal Insulation Compressive Strength (ASTM D-1621)	Lach	
Thermal Insulation Density (ASTM D-1622)	i:ach	
Softening Point of Ritumen - Ring and Ball (ASTM D-36)	Each	
Measuring Voids in Roofing Membrane (ASTM D-5076)	Each	200.00
Fireproofing		
Adhesion/Cohesion Bond Equipment	Per Test	50.00
Density I shoretory Test	Lach	
Intumescent Dry Film Thickness Gauge	Per Day	75.00
INDINORASIII TATA T. IIII. I STANTIANA COMPONICATION		

#### GENERAL NOTES

- 1. Equipment charges do not include personnel time for performing test.
- Consultation, interpretation of data, and recommendation or conclusions based on tests results are not included in equipment fee.

