

**PROFESSIONAL SERVICES
AGREEMENT BETWEEN
MATERIAL TESTING CONSULTANTS INC
AND THE CITY OF ANN ARBOR FOR
GEOTECHNICAL AND ENVIRONMENTAL SERVICES**

This agreement ("Agreement") is between the CITY OF ANN ARBOR, a Michigan municipal corporation, 301 E. Huron St. Ann Arbor, Michigan 48104 ("City"), and MATERIAL TESTING CONSULTANTS INC, a Michigan corporation, 2105 Bishop Cir W, Dexter, Michigan 48130 ("Contractor"). City and Contractor agree as follows:

1. DEFINITIONS

Administering Service Area/Unit means **Public Services / Engineering**.

Contract Administrator means Nicholas Hutchinson, acting personally or through any assistants authorized by the Administrator/Manager of the Administering Service Area/Unit.

Deliverables means all documents, plans, specifications, reports, recommendations, and other materials developed for and delivered to City by Contractor under this Agreement.

Effective Date means the date this Agreement is signed by the last party to sign it.

Services means Geotechnical and Environmental Services as further described in Exhibit A.

2. DURATION

- A. The obligations of this Agreement shall apply beginning on the Effective Date and this Agreement shall remain in effect until satisfactory completion of the Services unless terminated as provided for in this Agreement.

3. SERVICES

- A. Contractor shall perform all Services in compliance with this Agreement. The City retains the right to make changes to the quantities of Services within the general scope of the Agreement at any time by a written order. If the changes add to or deduct from the extent of the Services, the compensation shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement.
- B. Quality of Services under this Agreement shall be of the level of quality performed by persons regularly rendering this type of service. Determination of acceptable quality shall be made solely by the Contract Administrator.
- C. Contractor shall perform Services in compliance with all applicable statutory, regulatory, and contractual requirements now or hereafter in effect. Contractor shall also comply with and be subject to City policies applicable to independent contractors.
- D. Contractor may rely upon the accuracy of reports and surveys provided by the City, except when a defect should have been apparent to a reasonably competent

professional or when Contractor has actual notice of a defect.

4. INDEPENDENT CONTRACTOR

- A. The parties agree that at all times and for all purposes under the terms of this Agreement each party's relationship to any other party shall be that of an independent contractor. Each party is solely responsible for the acts of its own employees, agents, and servants. No liability, right, or benefit arising out of any employer-employee relationship, either express or implied, shall arise or accrue to any party as a result of this Agreement.
- B. Contractor does not have any authority to execute any contract or agreement on behalf of the City, and is not granted any authority to assume or create any obligation or liability on the City's behalf, or to bind the City in any way.

5. COMPENSATION OF CONTRACTOR

- A. The total amount of compensation paid to Contractor under this Agreement shall not exceed \$275,000.00, which shall be paid upon invoice by Contractor to the City for services rendered according to the schedule in Exhibit B. Compensation of Contractor includes all reimbursable expenses unless a schedule of reimbursable expenses is included in an attached Exhibit B. Expenses outside those identified in the attached schedule must be approved in advance by the Contract Administrator.
- B. Payment shall be made monthly following receipt of invoices submitted by Contractor and approved by the Contract Administrator, unless a different payment schedule is specified in Exhibit B.
- C. Contractor shall be compensated for additional work or Services beyond those specified in this Agreement only when the scope of and compensation for the additional work or Services have received prior written approval of the Contract Administrator.
- D. Contractor shall keep complete records of work performed (e.g. tasks performed, hours allocated, etc.) so that the City may verify invoices submitted by Contractor. Such records shall be made available to the City upon request and submitted in summary form with each invoice.

6. INSURANCE/INDEMNIFICATION

- A. Contractor shall procure and maintain from the Effective Date or Commencement Date of this Agreement (whichever is earlier) through the conclusion of this Agreement, such insurance policies, including those required by this Agreement, as will protect itself and the City from all claims for bodily injury, death, or property damage that may arise under this Agreement; whether the act(s) or omission(s) giving rise to the claim were made by Contractor, Contractor's subcontractor, or anyone employed by Contractor or Contractor's subcontractor directly or indirectly. Prior to commencement of work under this Agreement, Contractor shall provide documentation to the City demonstrating Contractor has obtained the policies and endorsements required by this

Agreement. Contractor shall provide such documentation in a form and manner satisfactory to the City. Currently, the City requires insurance to be submitted through its contractor, myCOI. Contractor shall add registration@mycoitracking.com to its safe sender's list so that it will receive necessary communication from myCOI. When requested, Contractor shall provide the same documentation for its subcontractors.

- B. All insurance providers of Contractor shall be authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-authorized insurance companies are not acceptable unless approved in writing by the City.
- C. To the fullest extent permitted by law, Contractor shall indemnify, defend, and hold the City and its officers, employees, and agents harmless from all suits, claims, judgments, and expenses, including attorney's fees, resulting or alleged to result, from an act or omission by Contractor or Contractor's employees or agents occurring in the performance or breach of this Agreement, except to the extent that any suit, claim, judgment, or expense are finally judicially determined to have resulted from the City's negligence, willful misconduct, or failure to comply with a material obligation of this Agreement. The obligations of this paragraph shall survive the expiration or termination of this Agreement.
- D. Contractor is required to have the following minimum insurance coverage:
 - 1. Professional Liability Insurance or Errors and Omissions Insurance protecting Contractor and its employees - \$1,000,000.
 - 2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 04 13 or current equivalent. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy.

\$1,000,000	Each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined
\$2,000,000	Per project General Aggregate
\$1,000,000	Personal and Advertising Injury
 - 3. Worker's Compensation Insurance in accordance with all applicable state and federal statutes; also, Employers Liability Coverage for:

Bodily Injury by Accident - \$500,000	each accident
Bodily Injury by Disease - \$500,000	each employee
Bodily Injury by Disease - \$500,000	each policy limit
 - 4. Motor Vehicle Liability Insurance equivalent to, as a minimum, Insurance Services Office form CA 00 01 10 13 or current equivalent. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. The City of Ann Arbor shall be an additional insured. There shall be no added exclusions or limiting endorsements that diminish the City's protections as an additional insured under the policy. The limits of liability shall be \$1,000,000 for

each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

5. Umbrella/Excess Liability Insurance shall be provided to apply in excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- E. Commercial General Liability Insurance and Motor Vehicle Liability Insurance (if required by this Agreement) shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Contractor agrees to waive any right of recovery by its insurer against the City for any insurance listed herein.
- F. Insurance companies and policy forms are subject to approval of the City Attorney, which approval shall not be unreasonably withheld. Documentation must provide and demonstrate an unconditional and unqualified 30-day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number(s); name of insurance company; name(s), email address(es), and address(es) of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions, which may be approved by the City in its sole discretion; (c) that the policy conforms to the requirements specified. Contractor shall furnish the City with satisfactory certificates of insurance and endorsements prior to commencement of any work. If any of the above coverages expire by their terms during the term of this Agreement, Contractor shall deliver proof of renewal and/or new policies and endorsements to the Administering Service Area/Unit at least ten days prior to the expiration date.

7. WAGE AND NONDISCRIMINATION REQUIREMENTS

- A. Nondiscrimination. Contractor shall comply, and require its subcontractors to comply, with the nondiscrimination provisions of MCL 37.2209. Contractor shall comply with the provisions of Section 9:158 of Chapter 112 of Ann Arbor City Code and assure that Contractor's applicants for employment and employees are treated in a manner which provides equal employment opportunity.
- B. Living Wage. If Contractor is a "covered employer" as defined in Chapter 23 of Ann Arbor City Code, Contractor must comply with the living wage provisions of Chapter 23 of Ann Arbor City Code, which requires Contractor to pay those employees providing Services to the City under this Agreement a "living wage," as defined in Section 1:815 of the Ann Arbor City Code, as adjusted in accordance with Section 1:815(3); to post a notice approved by the City of the applicability of Chapter 23 in every location in which regular or contract employees providing services under this Agreement are working; to maintain records of compliance; if requested by the City, to provide documentation to verify compliance; to take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee or person contracted for employment in order to pay the living wage required by Section 1:815; and otherwise to comply with the requirements of Chapter 23.

8. REPRESENTATIONS AND WARRANTIES BY CONTRACTOR

- A. Contractor warrants that the quality of Services shall conform to the level of quality performed by persons regularly rendering this type of service.
- B. Contractor warrants that it has all the skills, experience, and professional and other licenses necessary to perform the Services.
- C. Contractor warrants that it has available, or will engage at its own expense, sufficient trained employees to provide the Services.
- D. Contractor warrants that it has no personal or financial interest in this Agreement other than the fee it is to receive under this Agreement. Contractor certifies that it will not acquire any such interest, direct or indirect, which would conflict in any manner with the performance of the Services. Contractor certifies that it does not and will not employ or engage any person with a personal or financial interest in this Agreement.
- E. Contractor warrants that it is not, and shall not become overdue or in default to the City for any contract, debt, or any other obligation to the City, including real and personal property taxes. Further Contractor agrees that the City shall have the right to set off any such debt against compensation awarded for Services under this Agreement.
- F. Contractor warrants that its bid or proposal for services under this Agreement was made in good faith, that it arrived at the costs of its proposal independently, without consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such costs with any competitor for these services; and no attempt has been made or will be made by Contractor to induce any other person or entity to submit or not to submit a bid or proposal for the purpose of restricting competition.
- G. The person signing this Agreement on behalf of Contractor represents and warrants that they have express authority to sign this Agreement for Contractor and agrees to hold the City harmless for any costs or consequences of the absence of actual authority to sign.
- H. The obligations, representations, and warranties of this section 8 shall survive the expiration or termination of this Agreement.

9. OBLIGATIONS OF THE CITY

- A. The City shall give Contractor access to City properties and project areas as required to perform the Services.
- B. The City shall notify Contractor of any defect in the Services of which the Contract Administrator has actual notice.

10. ASSIGNMENT

- A. Contractor shall not subcontract or assign any portion of any right or obligation under this Agreement without prior written consent from the City. Notwithstanding any consent by the City to any assignment, Contractor shall at all times remain bound to all warranties, certifications, indemnifications, promises, and performances required of Contractor under the Agreement unless specifically released from the requirement in writing by the City.
- B. Contractor shall retain the right to pledge payments due and payable under this Agreement to third parties.

11. TERMINATION OF AGREEMENT

- A. If either party is in breach of this Agreement for a period of 15 days following receipt of notice from the non-breaching party with respect to the breach, the non-breaching party may pursue any remedies available against the breaching party under applicable law, including the right to terminate this Agreement without further notice. The waiver of any breach by any party to this Agreement shall not waive any subsequent breach by any party.
- B. The City may terminate this Agreement, on at least 30 days' advance notice, for any reason, including convenience, without incurring any penalty, expense, or liability to Contractor, except the obligation to pay for Services actually performed under the Agreement before the termination date.
- C. Contractor acknowledges that if this Agreement extends for several fiscal years, continuation of this Agreement is subject to appropriation of funds through the City budget process. If funds are not appropriated or otherwise made available, the City shall have the right to terminate this Agreement without penalty at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of termination to Contractor. The Contract Administrator shall give Contractor written notice of such non-appropriation within 30 days after the Contract Administrator has received notice of such non-appropriation.
- D. The expiration or termination of this Agreement shall not release either party from any obligation or liability to the other party that has accrued at the time of expiration or termination, including a payment obligation that has already accrued and Contractor's obligation to deliver all Deliverables due as of the date of termination of the Agreement.

12. REMEDIES

- A. This Agreement does not, and is not intended to, impair, divest, delegate, or contravene any constitutional, statutory, or other legal right, privilege, power, obligation, duty, or immunity of the parties.
- B. All rights and remedies provided in this Agreement are cumulative and not exclusive, and the exercise by either party of any right or remedy does not preclude the exercise of any other rights or remedies that may now or subsequently be available at law, in

equity, by statute, in any other agreement between the parties, or otherwise.

- C. Absent a written waiver, no act, failure, or delay by a party to pursue or enforce any right or remedy under this Agreement shall constitute a waiver of that right with regard to any existing or subsequent breach of this Agreement. No waiver of any term, condition, or provision of this Agreement, whether by conduct or otherwise, shall be deemed or construed as a continuing waiver of any term, condition, or provision of this Agreement. No waiver by either party shall subsequently affect the waiving party's right to require strict performance of this Agreement.

13. NOTICE

All notices and submissions required under this Agreement shall be delivered to the respective party in the manner described herein to the address stated below or such other address as either party may designate by prior written notice to the other. Notices given under this Agreement shall be in writing and shall be personally delivered, sent by next day express delivery service, certified mail, or first class U.S. mail postage prepaid, and addressed to the person listed below. Notice will be deemed given on the date when one of the following first occur: (1) the date of actual receipt; (2) the next business day when notice is sent next day express delivery service or personal delivery; or (3) three days after mailing first class or certified U.S. mail.

If notice is sent to Contractor:

MATERIAL TESTING CONSULTANTS INC
ATTN: Daniel Elliot
2105 Bishop Cir W
Dexter, Michigan 48130

If notice is sent to the City:

City of Ann Arbor
ATTN: Nicholas Hutchinson
301 E. Huron St.
Ann Arbor, Michigan 48104

With a copy to: The City of Ann Arbor
ATTN: Office of the City Attorney
301 East Huron Street, 3rd Floor
Ann Arbor, Michigan 48104

14. CHOICE OF LAW AND FORUM

This Agreement will be governed and controlled in all respects by the laws of the State of Michigan, including interpretation, enforceability, validity and construction, excepting the principles of conflicts of law. The parties submit to the jurisdiction and venue of the Circuit Court for Washtenaw County, State of Michigan, or, if original jurisdiction can be established, the United States District Court for the Eastern District of Michigan, Southern Division, with respect to any action arising, directly or indirectly, out of this Agreement or the performance or breach of this Agreement. The parties stipulate that the venues referenced in this Agreement are convenient and waive any claim of non-convenience.

15. OWNERSHIP OF DOCUMENTS

Upon completion or termination of this Agreement, all Deliverables prepared by or obtained by Contractor as provided under the terms of this Agreement shall be delivered to and become the property of the City. Original basic survey notes, sketches, charts, drawings, partially completed drawings, computations, quantities, and other data shall remain in the possession of Contractor as instruments of service unless specifically incorporated in a Deliverable, but shall be made available, upon request, to the City without restriction or limitation on their use. The City acknowledges that the documents are prepared only for the Services. Prior to completion of the Services the City shall have a recognized proprietary interest in the work product of Contractor.

16. CONFLICTS OF INTEREST OR REPRESENTATION

Contractor certifies it has no financial interest in the Services to be provided under this Agreement other than the compensation specified herein. Contractor further certifies that it presently has no personal or financial interest, and shall not acquire any such interest, direct or indirect, which would conflict in any manner with its performance of the Services under this Agreement.

Contractor agrees to advise the City if Contractor has been or is retained to handle any matter in which its representation is adverse to the City and to obtain the City's consent therefor. The City's prospective consent to Contractor's representation of a client in matters adverse to the City, as identified above, will not apply in any instance where, as the result of Contractor's representation, Contractor has obtained sensitive, proprietary, or otherwise confidential information of a non-public nature that, if known to another client of Contractor, could be used in any such other matter by the other client to the material disadvantage of the City. Each matter will be reviewed on a case by case basis.

17. SEVERABILITY OF PROVISIONS

Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this Agreement or the application of any provision to any party or circumstance is prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this Agreement or the application of the provision to other parties and circumstances.

18. EXTENT OF AGREEMENT

This Agreement, together with all Exhibits constitutes the entire understanding between the City and Contractor with respect to the subject matter of the Agreement and it supersedes, unless otherwise incorporated by reference herein, all prior representations, negotiations, agreements, or understandings, whether written or oral. Neither party has relied on any prior representations in entering into this Agreement. No terms or conditions of either party's invoice, purchase order, or other administrative document shall modify the terms and conditions of this Agreement, regardless of the other party's failure to object to such terms or conditions. This Agreement shall be binding on and shall inure to the benefit of the parties to this Agreement and their permitted successors and permitted assigns and nothing in this Agreement, express or implied, is intended

to or shall confer on any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Agreement. This Agreement may only be altered, amended, or modified by written amendment signed by Contractor and the City. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement.

19. ELECTRONIC TRANSACTION

The parties agree that signatures on this Agreement may be delivered electronically or by facsimile in lieu of a physical signature and agree to treat electronic or facsimile signatures as binding.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGES FOLLOW]

**MATERIAL TESTING CONSULTANTS
INC**

By: _____

Name: Daniel Elliot

Title: President

Date: _____

CITY OF ANN ARBOR

By: _____

Name: Milton Dohoney Jr.

Title: City Administrator

Date: _____

By: _____

Name: Jordan Roberts

Title: Public Services Area
Administrator

Date: _____

By: _____

Name: Atleen Kaur

Title: City Attorney

Date: _____

(Signatures continue on following page)

CITY OF ANN ARBOR

By: _____

Name: _____

Title: Mayor _____

Date: _____

By: _____

Name: _____

Title: City Clerk _____

Date: _____

EXHIBIT A SCOPE OF SERVICES

The contract includes performance of soil borings and pavement cores at various location and depths throughout the City. The work for this contract be on an “as-needed” basis.

Many of the borings requested through this contract will likely consist of 5-foot deep borings for road resurfacing/reconstruction projects. In addition, there will likely also be deeper borings for utility replacement and stormwater infiltration projects. Most of the borings will be located within, or adjacent to, public streets.

The City may also request that environmental drilling or direct push drilling be performed at sites of known or suspected contamination.

It is the City’s intent to bundle work together as much as possible to reduce mobilization and overhead costs, however some requests for work may still need to be performed separately as needed. For purposes of this contract, a “bundle” will be defined as each request for work from the City. The City may request a cost estimate on each bundle of work prior to beginning the work. Such estimates shall be performed at no cost to the City.

The work to be performed by Material Testing Consultants, Inc. shall include:

- Performing soil borings in locations as directed by the City. Each soil boring shall include pavement cores for the purpose of determining existing pavement thickness. This shall also include coring through any concrete pavement or base that may be encountered. Soil borings will extend to the depth indicated, as measured from the top of the existing pavement.
- Careful measurement and recording on the boring logs of all pavement and aggregate base thicknesses. The composition and description of the aggregate base shall also be reported on the boring logs (i.e. natural aggregate or crushed limestone). Sufficient samples of aggregate base and sand subbase materials shall be obtained to perform sieve analysis testing if requested by the City.
- Continuous sampling on all soil borings for the first 2½ feet below the existing pavement surface.
- Measuring and recording the distance of the actual boring location from the nearest curb line and from another permanent feature (such as a drainage structure, driveway opening, etc.). Sampling locations will be marked in the field by a representative of the firm as directed by the City. Any boring locations needing to be offset due to conflicts with existing utilities, parked cars, trees, or other unmovable obstacles shall be coordinated with the City.
- Preparing boring logs describing in detail the soil types encountered and results of laboratory analysis, as well as the locations of the soil borings and cores.
- Preparing a geotechnical report describing the results of the soils investigation and making recommendations as appropriate. The geotechnical report will also provide a summary table of the soil boring results, which shall include, at a minimum, the street name and limits, range of asphalt thicknesses encountered, thickness and description of base course encountered, a brief description of subgrade soils, estimated Resilient Modulus measured in psi, analysis of any laboratory results, and photographs of the labeled pavement cores with a reference scale such

as a ruler, tape measure, etc. One report shall be prepared per “bundle” of projects, as requested by the City.

- Any laboratory testing required to provide comprehensive soil boring logs and/or geotechnical reports. This shall include, at a minimum, visual engineering classification of all samples (in accordance with the USCS) as well as moisture content and soil strength tests on cohesive samples. All core thicknesses shall be measured in the laboratory to verify measurements obtained in the field. Laboratory testing shall be included in the cost of the soil borings.
- Additional laboratory testing as requested by the City, such as gradation analysis or permeability.
- Obtaining the proper permits from the City of Ann Arbor and supplying the necessary traffic control during drilling operations. The selected firm will need to obtain Right Of Way Permits and Lane Closure Permits (when necessary) from the City of Ann Arbor. The fees for these permits shall be waived. Or if borings are located in MDOT jurisdiction, obtaining MDOT permit. If necessary, the Consultant shall rent parking meter bags (at the Consultant’s cost) to assure access to soil borings in areas where parking meters are present.
- Performing environmental soil borings or direct push drilling at sites of known or suspected contamination. Environmental drilling, which requires the drill rig, augers and other equipment to be decontaminated prior to drilling operations, shall be done in accordance with EPA standards.
- Performing environmental direct push drilling (i.e. Geoprobe), which uses a percussion hammer to push and vibrate into the ground, instead of rotating. The soil samples shall be collected in 5' plastic liners, so that volatile organics are not exposed to the atmosphere, resulting in better analysis.
- Preparing a site specific environmental work plan and Health and Safety plan for the City’s review and approval prior to performing environmental soil borings or direct push drilling at sites of known or suspected contamination.
- Collecting of soil and groundwater samples suitable for submittal for analytical evaluation for PNAs, VOCs, metals or other analysis requested by the City. These samples, including trip blanks, shall be collected and delivered to City staff or a suitable laboratory using the standard chain of custody protocols.
- Implementation of traffic control for all major streets in conformance with the most current edition of the Michigan Manual of Uniform Traffic Control Devices (MMUTCD).
- All services shall be performed in compliance with all applicable EPA, ASTM, MDOT, and City Standards and Specifications, and shall be performed under the direction of a Michigan licensed professional engineer, employed by the selected firm.

EXHIBIT B COMPENSATION

General

Contractor shall be paid for those Services performed pursuant to this Agreement inclusive of all reimbursable expenses (if applicable), in accordance with the terms and conditions herein. The Compensation Schedule below/attached states nature and amount of compensation the Contractor may charge the City:

All project management, engineering time, secretarial time, MISSDIG coordination, obtaining permits, and other miscellaneous staff time shall be included in the appropriate items of work on the table below, and shall not be paid for separately.

No charges for items not listed below shall be made without prior authorization by the City.

Service Description	Units	Unit Price
Mobilization	Each	\$1,400
Traffic Control	Day	\$475
Two-Person Flagging Crew	Hour	\$375
Soil Borings (including pavement core)	L.F.	\$46
Pavement core (including the aggregate base)	Each	\$235
Geotechnical Report	Each	\$2,500
Lab Testing	Each	\$28
Sieve Analysis	Each	\$175
Permeability Test	Each	\$400
Loss-on-Ignition Test	Each	\$175
Infiltration Testing (in accordance with the WCWRC rules)	Each	\$525
Environmental Work Plan & Health and Safety Plan	Each	\$700
Environmental Soil Borings	L.F.	\$63
Environmental Direct Push Bore	L.F.	\$46
Environmental Soil Sample	Each	\$110
Environmental Groundwater Sample	Each	\$220

Mobilization: This item includes all mobilization costs for each bundle of projects on which work is requested.

Traffic Control: This item includes all temporary signs, cones, barrels, arrow boards, and/or other traffic control devices necessary to conform to the MMUTCD and to safely complete the work.

Two-Person Flagging Crew: This hourly rate includes all costs associated with providing flag persons as necessary for traffic control on major streets.

Soil Borings: Includes all staff time and equipment costs involved with performing soil borings, including all coordination with MISS DIG. Also includes backfilling and cold-patching the borehole.

Conventional Laboratory Testing: This item consists of all laboratory testing necessary to prepare the soil boring logs, including visual engineering classification (VEC) on all samples; and moisture content and strength testing (Qp) on all native cohesive samples. Charges shall be on a per sample basis.

Geotechnical Report: As described in Exhibit A, for each bundle of projects submitted.

Sieve, Permeability, & Loss-on-Ignition Tests: Additional laboratory testing to be performed in accordance with applicable ASTM standards, as requested by the City. The appropriate type of laboratory permeability test will be project dependent and will be determined by the City of Ann Arbor and the Consultant based on soil type encountered during drilling operations.

Environmental Work plan and Health & Safety Plan: The includes the preparation of a site specific environmental work plan and Health & Safety Plan, which shall be submitted to the City for review and approval prior to commencing drilling operations. A photoionization detector(s) with 10.6 eV and/or 11.7 eV lamps, depending on the nature of contaminants, may be required during drilling operations.

Environmental Soil Borings: Includes all staff time and equipment costs involved with performing environmental soil borings, including all coordination with MISS DIG. Also includes proper disposal of soil cuttings, grouting the borehole and/or cold-patching the borehole.

Environmental Direct Push Bore: Includes all staff time and equipment costs involved with performing environmental direct push borings, including all coordination with MISS DIG. Also includes proper disposal of soil cuttings, grouting the borehole and/or cold-patching the borehole.

Environmental Soil and Groundwater Samples: These items include the collection of soil and groundwater samples suitable for submittal for analytical evaluation per the approved work plan. The samples shall be labeled and stored under chilled condition in suitable containers. Delivery to the City or an approved laboratory shall be arranged as soon as practical and before the sample holding time limit expires.