

**AMENDMENT NUMBER ONE TO
PROFESSIONAL SERVICES AGREEMENT BETWEEN
TETRA TECH OF MICHIGAN, PC
AND THE CITY OF ANN ARBOR
FOR SOIL BORINGS, TESTING AND REMEDIATION AT LSNC**

The City of Ann Arbor, a Michigan municipal corporation, having its offices at 301 E. Huron St. Ann Arbor, Michigan 48104 ("City"), and Tetra Tech of Michigan, PC a Michigan Professional Corporation with its address at 710 Avis Drive, Ann Arbor, MI 48108, agree to amend the professional services agreement for Soil Borings and Testing at LSNC executed by the parties on about August 14, 2018 ("Agreement") as follows: agree as follows:

- 1) The Agreement's title is amended to read as follows: "Professional Services Agreement between Tetra Tech of Michigan, PC and the City of Ann Arbor for Soil Borings, Testing, and Remediation at LSNC".
- 2) Article I, Project definition is amended to read as follows: "Project means Leslie Science and Nature Center ("LSNC") soil borings, testing, and remediation".
- 3) Article III, Section 3 is amended to read as follows: "A. The Contractor agrees to provide soil borings, soil testing, and site remediation at Leslie Science and Nature Center ("Services") in connection with the Project as described in Exhibit A. The City retains the right to make changes to the quantities of service 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 contract sum shall be adjusted accordingly. All such changes shall be executed under the conditions of the original Agreement."
- 4) Exhibit A Scope of Services, is amended to add the following Services:

"VII. Meetings and Brownfield Plan Development – \$14,530

- Attendance at WCBA meeting and follow-up meetings with City and stakeholders (County Health, Leslie Science and Nature Center personnel; EGLE; attorneys)
- Completion of Phase II ESA Report, Brownfield Plan and application information

VIII. Third Field Investigation (Sept) – \$26,506

- Drilling investigation – vertical delineation of chlorinated volatile organic compounds (VOCs); groundwater characterization
 - Up to seven borings (up to 50 feet deep) – 4 to 5 soil samples from each boring
 - VOC analyses at all sample locations (up to 28 samples)
 - If groundwater is encountered, collect 1 sample from each boring (up to 7 samples)
 - Analysis - MI 10 metals and VOCs at all sample locations
 - Up to 12 shallow borings (0.5 feet deep) – 1 sample from each boring (up to 12 samples) if soil samples at the lab are not available for relative arsenic bioavailability (RAB) testing.
 - Arsenic analyses at each location

- QAQC samples – 1 trip blank, 1 duplicate (VOCs, MI 10 metals) for soil and groundwater
- Assumes 4 field days (vapor pins and borings) for 2 field personnel, vehicle and PID; assumes 4 field days for drilling subcontractor for drilling; well installation, vapor pin installation, GPR
- Assumes two PID units will be used with different lamps to detect the varying ionization potentials of the four chlorinated compounds.
- Assumes time for field preparation and coordination with stakeholders and subcontractor
- GPS coordinates will be collected from each boring location
 - Assumes 1 day for personnel onsite and office time to download GPS data; 1 day for GPS unit

IX. Vapor Intrusion System Installation – DTE Energy Nature House – \$33,331

- Vapor pin installation (soil gas) – completed during drilling investigation
 - 2 vapor pin installations in DTE Energy Nature House for monitoring post system installation
- Sealing of all conduits to basement of DTE Energy Nature House by subcontractor (cracks, drains, etc)
- Sealing of basement north wall due to past flooding issues
- Installation of vents for negative pressure issues
- Installation of vapor mitigation system by subcontractors
- Collection of sub-slab vapor gas – 4 samples for VOCs from each vapor pin over two weeks
 - 8 samples
 - 48-hr rush turnaround time
- Data evaluation and communication with stakeholders
- Assumes 3 field days for 1 field personnel (sealing, vent installation, VI mitigation system installation)
- Assumes time for field preparation and coordination with stakeholders and subcontractor
- Four additional site visits for sampling vapor pins

X. Excavation of Depression and Pit – \$76,937

- Vegetation clearing and excavation of the upper 3 feet of soil in the depression completed by subcontractor
- Removal of concrete cap and limited excavation of source material
- Estimated excavation volume is approximately 465 cubic yards
- Waste profile and soils transported to non-hazardous landfill
- Excavations backfilled with sand and imported topsoil
- Up to 4 metals samples and 8 VOC samples will be collected at the bottom of the excavation
- Geofabric or snow fencing will be used to demarcate the clean topsoil and site soils.
- Survey will be completed of the excavation outline, sample locations and demarcation line
- Five days are estimated to complete the site work.

XI. Relative Arsenic Bioavailability Study – \$26,709

- Plan creation and meetings with EGLE
- Laboratory analysis of the relative arsenic bioavailability for up to 18 surficial soil samples
- Assumes up to 12 samples will be collected during the third drilling investigation
- Eurofins Test America in Seattle, WA can complete the analyses using EPA Method 1340
- Statistical analyses of laboratory analytical results will be completed by Industrial Hygienist to determine site specific arsenic values.
- Report for state approval and negotiation

XII. Excavation of Proposed Playscape / Programming Areas – \$244,914

- Vegetation clearing and excavation of the upper 2 feet of soil within the proposed boundaries of the playscape completed by subcontractor (~3,500 cubic yards)
- Excavation of the upper 10 feet of soil in the willow tunnel/slide feature (~475 cubic yards)
- Waste profile and soils transported to non-hazardous landfill
- Excavation backfilled with sand and imported topsoil
- Up to 15 samples will be submitted for arsenic will be collected at the bottom of the excavation
- Geofabric or snow fencing will be used to demarcate the clean topsoil and site soils.
- Survey will be completed of the excavation outline, sample locations and demarcation line
- Five days are estimated to complete the site work.

XIII. Data Evaluation and Letter Report – \$8,044

- Creation of report for third investigation and excavation detail (update data tables, figures, and digital soil boring logs)
- Two meetings with the City and stakeholders

XIV. General Assumptions for Services VII - XIII

- No permanent wells will be installed
- Excavated soils accepted by non-hazardous landfill”

5) Exhibit B Compensation first paragraph is deleted and replaced with the following:

“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 Project Cost Summary below and the prices listed in Exhibit A states nature and amount of compensation the Contractor may charge the City. The total compensation that the City may pay the Contractor under this Agreement shall not exceed \$519,000.00.”

All terms, conditions, and provisions of the Agreement, unless specifically amended above, shall apply to this Amendment and are made a part of this Amendment as though expressly rewritten, incorporated, and included herein.

This Amendment to the Agreement shall be binding on the Parties’ heirs, successors, and assigns.

For Contractor

By _____

Its:

Date: _____

For City of Ann Arbor

By _____
Christopher Taylor, Mayor

By _____
Jacqueline Beaudry, City Clerk

Approved as to substance

Howard S. Lazarus, City Administrator

Derek Delacourt, Service Area Administrator

Approved as to form and content

Stephen K. Postema, City Attorney