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April 14, 2023

Mr. John Gross
Township Business Administrator/CFO
Township of West Orange
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Ms. Zayibeth Carballo
Assistant Municipal Engineer
Township of West Orange
Department of Public Works, Engineering Division
25 Lakeside Avenue, West Orange, NJ 07052
zcarballo@westorange.org

**Re: Proposal for Professional Services – Remedial Investigation
Department of Public Works at 25 Lakeside Avenue
Township of West Orange, Essex County, New Jersey
NJDEP CASE # 22-07-27-1645-19 & 22-11-14-1414-25
NJDEP SRP PI# 014423**

Dear Mr. Gross:

CME Associates (CME) is pleased to submit this proposal to the Township of West Orange (Client) to continue Professional Environmental and Licensed Site Remediation Professional (LSRP) Services at the Department of Public Works facility located at 25 Lakeside Avenue in West Orange.

This proposal is in response to the Township's request for a Scope of Services to perform remedial investigation to advance investigation and delineation of impacted soil and groundwater at the Site. The additional environmental services are described below.

CME is currently contracted with the Township for Professional Environmental and Licensed Site Remediation Services consulting work at the West Orange DPW located at 25 Lakeside Avenue (Site) to complete the remedial action of impacts resulting from an on-Site 4,000-gallon gasoline underground storage tank (UST) discharge. Additionally, CME conducted a Site



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Investigation of the identified areas of concern (AOCs) in the Preliminary Assessment conducted by Matrix.

Matrix conducted a Preliminary Assessment (PA) at the Site and complete it in August 2022. Based on a review of the PA, several AOCs are identified, inside and around the DPW garage, that could be the source of the discharge at MW-9 and other potential discharges. Additional Site and Remedial investigation activities should be completed to investigate these new AOCs and the extent of impacted soil and groundwater related to any potential discharges.

CME conducted a Site Investigation (SI) in accordance with NJDEP requirements and guidance documents. As part of the investigation, soil samples were collected at the identified AOCs and groundwater samples were obtained from temporary well points installed at locations proximate to the AOCs. Based on the findings of the investigation, it appears that few discharges occurred at the Site which has impacted soil and groundwater at the Site. CME recommended further investigation be conducted in accordance with the Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E) and NJDEP guidance documents to evaluate the extent of soil and groundwater impacts and determine the flow of groundwater beneath the Site.

Based on the results of the Site Investigation sampling, a Remedial Investigation of the impacted AOCs and delineation of impacted soil and groundwater at the Site is required.

This proposal was requested to conduct the required Remedial Investigation of the AOCs and complete the delineation of impacted soil and groundwater at the Site. The following scope of work is required to comply with the NJDEP Technical Requirements for Site Remediation at the Site and necessary to continue to advance the project towards a closure with Site-wide RAO.

The scope of work included in this proposal is based on the recommendations for investigation at AOCs identified in the PA and Site Investigation Report. The proposed scope of work is prepared to establish a Remedial Investigation of impacted AOCs to satisfy the New Jersey Department of Environmental Protection (NJDEP) requirements.

Note that based on the findings of the Remedial Investigation included in this proposal, further investigation and/or remediation may be warranted. This proposal does not include costs associated with additional investigation and remediation services beyond the scope of services presented herein.



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SCOPE OF SERVICES

The following proposed Scope of Services is based on the findings of the investigations (SI sampling results and additional soil and groundwater investigation), as well as the NJDEP requirements set forth in the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS) (N.J.A.C. 7:26C), Underground Storage Tanks (UST Rules) (N.J.A.C. 7:14B), the Technical Requirements for Site Remediation (TRSR) (N.J.A.C. 7:26E) and applicable NJDEP guidance documents.

TASK 1: SOIL DELINEATION - SOIL BORINGS AND SAMPLING

CME will retain the services of a qualified drilling contractor (Geoprobe operator) to perform direct-push soil borings and advance borings in all the impacted AOCs at the Site where additional investigation for soil and groundwater as recommended in the SI. The additional sampling is required to complete the horizontal and vertical delineation of soils impacts at the Site and collect additional information to support development of a remedial action design.

Encountered soils will be screened for the presence of volatile organic compounds (VOCs) using a calibrated photoionization detector (PID), assessed for visual and olfactory indications of contamination, and logged by CME personnel. In order to complete the delineation of the horizontal and vertical extents of soil contamination identified at the Site, soil samples will be collected at appropriate locations and intervals proximate to previous samples and will be submitted for appropriate analytical parameters based on the contaminants previously identified at each location/AOC. Final boring/sample locations will be determined in the field and will be surveyed using handheld GPS equipment.

The additional sampling will be conducted at the following Impacted AOCs:

- AOC-1F Edison - Two (2) former oil tank ASTs at East Storage Area
- AOC-5G Former Edison Coal Pile at Exterior East Storage Yard
- AOC-10A Oil/Water Separator at Exterior West Side of Repair Garage
- AOC-11A Historic Fill Area depicted at Location of Former Rail Line and AOC-11B - Historic Fill - Miscellaneous Subsurface Fill and Building Debris throughout Site
- AOC-15B - Staining at Exterior Truck Park, South of Storage Garage
- AOC-18B - Former Edison: Concrete Coal Trestle (Rail Siding)



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- AOC-19 - Groundwater Contamination from Unknown/Off-Site Chlorinated Solvent Sources

Up to fifty (50) soil borings will be advanced to depths that range between approximately five (5) to twenty (20) feet below ground surface (ft bgs).

CME personnel will log all borings and will utilize a photoionization detector (PID) to screen for the presence of volatile organic compounds (VOCs). All boring locations will be surveyed using GPS equipment.

The soil samples at each AOC location will be analyzed for different parameters, including EPA Target Compound List volatile organic compounds (TCL VO+TICs), semi volatile organic compounds (TCL SVO+TICs) with a library search of the fifteen (15) highest Tentatively Identified Compounds (TICs) or PAHs, PCBs and TAL Metals. All soil samples will be submitted to a NJDEP-certified analytical laboratory for analysis.

One (1) field blank sample will also be collected each day of field activities. The field blank(s) will be handled and transported in the same manner and analyzed for the same parameters as the samples collected that day.

The samples will be collected and equipment will be decontaminated in accordance with the NJDEP Field Sampling Procedures Manual (August 2005 edition, revised April 2011). All samples will be submitted to a NELAP-accredited and NJDEP-certified laboratory for analysis on a standard turnaround time.

Upon receipt of laboratory test results, CME will compare all groundwater sample results against the current NJDEP Groundwater Quality Standards (GWQS) for Class II-A Aquifers (N.J.A.C. 7:9C) and the NJDEP Vapor Intrusion Screening Levels (VISL).

All the field work implemented at the Site during the site investigation will be supervised; field screening techniques will be performed in accordance with the NJDEP Technical Requirements for Site Remediation (N.J.A.C. 7:26E) to determine the potential presence of impacted materials.

TASK 2: GROUNDWATER INVESTIGATION – MONITORING WELLS INSTALLATION

Four (4) monitoring wells (MW-12 through MW-15) will be installed to assist in the proposed remedial action monitoring at the site. CME will retain a licensed driller to install the monitoring wells with 2-inch diameter PVC; three wells will be constructed to a depth of approximately (20)



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feet and one well will be constructed as a double-cased deep well and will be installed to a depth of 40-45 feet below ground surface (bgs).

Based on the regional geology at the site vicinity, it is expected that the subsurface materials encountered will consist primarily of shale bedrock.

The depths and locations of the monitoring wells will be determined based on the findings of the investigations conducted to date to delineate the extent of contaminants identified during the initial sampling event.

The wells will be completed with a flush-mount cover. Drill cuttings will be placed in drums and properly disposed off-site at a licensed facility, and development water will be drummed for off-site disposal or properly treated prior to on-site discharge. A professional licensed surveyor will survey the monitoring wells. Well logs and Form A and Form B will be prepared to properly document the well construction.

TASK 3: GROUNDWATER SAMPLING

Two (2) rounds of groundwater samples will be collected from all monitoring wells to delineate the impacted groundwater and evaluate trends and seasonal fluctuations in contaminant concentrations and provide a baseline dataset for further remedial investigation, if needed.

- Two rounds of groundwater samples will be collected using existing wells and proposed monitoring wells MW-4 through MW-9. Sampling will be performed in accordance with USEPA Low Flow Sampling Procedures (March 1998).
- Water levels will be measured in all monitoring wells to confirm the groundwater flow direction. Water quality parameters will be directly measured in the field including conductivity, pH, temperature, redox potential, salinity, and dissolved oxygen (DO).
- All groundwater samples will be submitted for laboratory analysis for Target Compound List (TCL) VOCs and TCL semi volatile organic compounds (SVOCs) and TAL Metals in accordance with the TRSR and NJDEP guidance documents. Trip blank samples will accompany the groundwater sample(s) and will be analyzed for TCL VOCs and TBA. One (1) field blank sample will also be collected each day of field activities. The blanks will be handled and transported in the same manner and analyzed for the same parameters as the samples collected that day.

If groundwater contamination is delineated, additional groundwater sampling may be performed to evaluate compliance with remediation standards and determine if natural attenuation and CEA can be used as the groundwater remedial action at the Site; costs of the additional sampling are not included in this proposal.

If groundwater contamination is not delineated, additional monitoring wells and sampling will be required; costs is not included in this proposal.



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TASK 4: LSRP PROJECT MANAGEMENT, REPORTING - DATA EVALUATION AND REMEDIAL INVESTIGATION REPORT

LSRP Project Management: Licensed Site Remediation Professional (LSRP) services are required to be completed to comply with NJDEP regulatory requirements.

CME will provide effective project management services to complete the work proposed herein and will coordinate with the Borough and their subcontractor(s), CME's subcontractor(s), and the NJDEP, as necessary. CME's assigned LSRP will oversee remedial activities at the Site, prepare/certify related reports, and submit the required Site Remediation Reform Act (SRRA) forms to the NJDEP.

Task 4.1: Health and Safety Plan

A site-specific Health and Safety Plan (HASP) will be prepared in accordance with applicable Occupational Safety and Health Administration (OSHA) regulations and industry health and safety standards. The HASP will specify the health and safety procedures to be followed during implementation of the field activities at the Site in order to protect on site personnel and the general public, respond to emergencies, comply with environmental regulations, and prevent pollution as a result of work operations.

Task 4.2: Quality Assurance Project Plan

A site-specific Quality Assurance Project Plan (QAPP) for the proposed investigation activities will be prepared in accordance with the requirements at N.J.A.C. 7:26E-2.2 and NJDEP guidance documents. The QAPP will specify the quality assurance (QA) and quality control (QC) procedures to be implemented during the field activities at the Site.

Task 4.3: Update Receptor Evaluation

Pursuant to N.J.A.C. 7:26E-1.12 et seq., the receptor evaluation must be updated and submitted to the NJDEP along with any key document submittal (e.g., RIR). Accordingly, CME will conduct a receptor evaluation update based on the findings of the investigations proposed herein. CME will also complete and submit the required Receptor Evaluation Form to applicable government agencies (e.g., NJDEP, health department, municipal clerk).

PROPOSED BUDGET

The budget for completion of the proposed scope of work is **\$198,940** as indicated in the following table:

Task	Description	Cost
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1	Soil Delineation - Soil Borings and Sampling	\$ 69,070
2	Groundwater Investigation – Monitoring Wells Installation	\$ 68,290
3	Groundwater Sampling	\$ 30,700
4	LSRP Project Management, Reporting - Data Evaluation and Remedial Investigation Report	\$ 30,880
Total		\$198,940

The proposed budget includes approximately **\$130,000** for subcontractor's fee, including laboratory analysis, equipment cost, etc., and NJDEP fees. The budget contained in this proposal is the firm's best estimate of the effort required to carry out the project as outlined in the scope of work. However, the client will be billed for the actual effort expended to implement the Scope of Services in accordance with the attached billing rates for Environmental Engineering and LSRP services. In no event will the client be billed or work performed in excess of the proposal amount without client's prior approval.

ASSUMPTIONS AND LIMITATIONS

The scope of work is limited to the tasks outlined above. Based on the investigation findings, additional remediation activities may be required to comply with N.J.A.C. 7:26E and close the case. A separate cost proposal will be provided for any additional work.

SPECIAL CONDITIONS FOR LSRP SERVICES

- The enactment of the Site Remediation Reform Act (SRRA; N.J.S.A. 58:10C-1 et seq) on May 7, 2009, and the adoption of the Administrative Requirements for the Remediation of Contaminated Sites (ARRCS; N.J.A.C. 7:26C) on November 4, 2009 require that all new remediation cases follow the provisions of SRRA. A key requirement of these rules is that a Licensed Site Remediation Professional (LSRP) must oversee all new remediation cases.
- The ARRCS requires the person responsible for conducting a remediation to notify the NJDEP of any confirmed discharges of contaminants or condition of Immediate Environmental Concern ("IEC"). Please note that being an LSRP, as a State licensed professional, I will thus have the obligation to report any such conditions to the NJDEP without obtaining any prior approval from the client.
- LSRP will provide the required services in accordance with SRRA and has the obligation to submit, maintain and preserve the relevant documents.



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- LSRP is not responsible for client's failure to disclose relevant information, perform SRRA obligations, fund remediation, and follow LSRP's recommended actions. Client's failure to perform these obligations may result in fines/penalties by the NJDEP.
- The issuance of RAO by LSRP is not a guarantee or warranty that the site is free of contamination, or that it will be accepted by the NJDEP.
- NJDEP may audit the RAO within three (3) years after the date the LSRP filed the RAO with the NJDEP. LSRP is not responsible for additional requirements imposed by NJDEP after review/audit, except to the extent they arise out of LSRP's negligence.

We appreciate the opportunity to submit this proposal and assist the Township on this project. Should you have any questions, please do not hesitate to call me at 732-951-2101, extension 103.

Respectfully submitted,

CME Associates

Behram Turan, P.E., LSRP- Principal
Director of Environmental Services

Enclosure

cc: Michael McClelland, P.E., P.P. - Partner / CME Associates



MUNICIPAL ENGINEERING SERVICES
GENERAL CONDITIONS AND HOURLY RATE SCHEDULE TO JANUARY 1, 2024

Senior Project Manager	\$187.00 Per Hour
Project Manager	\$186.00 Per Hour
Project Leader	\$185.00 Per Hour
Professional Engineer	\$184.00 Per Hour
Senior Project Engineer.....	\$179.00 Per Hour
Project Engineer	\$158.00 Per Hour
Senior Design Engineer.....	\$144.00 Per Hour
Design Engineer	\$137.00 Per Hour
Drone Pilot.....	\$143.00 Per Hour
Senior Engineering Technician.....	\$129.00 Per Hour
Engineering Technician/Management Information Systems Technician.....	\$122.00 Per Hour
Drone Technician	\$ 80.00 Per Hour
Professional Land Surveyor	\$181.00 Per Hour
Land Surveyor	\$161.00 Per Hour
Robotic Total Station	\$ 79.00 Per Hour
Party Chief.....	\$137.00 Per Hour
Survey Technician.....	\$106.00 Per Hour
Resident Engineer.....	\$164.00 Per Hour
Chief Construction Engineer.....	\$154.00 Per Hour
Senior Construction Engineer.....	\$129.00 Per Hour
Construction Engineer	\$123.00 Per Hour
Chief Construction Technician.....	\$106.00 Per Hour
Senior Construction Technician.....	\$ 94.00 Per Hour
Construction Technician	\$ 88.00 Per Hour
Technical Assistant.....	\$101.00 Per Hour
Senior CAD Technician	\$135.00 Per Hour
Licensed Landscape Architect.....	\$183.00 Per Hour
Senior Landscape Designer	\$164.00 Per Hour
Certified Tree Expert	\$146.00 Per Hour
Landscape Designer.....	\$130.00 Per Hour
Director of Planning	\$188.00 Per Hour
Professional Planner	\$187.00 Per Hour
Project Planner	\$155.00 Per Hour
Planning Technician	\$133.00 Per Hour
Partner.....	\$191.00 Per Hour
Principal.....	\$190.00 Per Hour
Managing Partner/Administrative Partner.....	\$201.00 Per Hour

Environmental services will be billed in accordance with CME's Environmental Rate Schedule

Invoices - CME Associates (CME) will submit invoices to Client monthly and a final invoice upon completion of services. Payment is due upon presentation of invoice and is past due thirty days from invoice date. Client agrees to pay a finance charge of one and one-half percent per month, or the maximum rate allowed by law, on past due accounts. In the event that the invoice is not paid voluntarily and promptly, and must therefore be referred to an attorney or agency for collection, the Client agrees to pay a collection fee equal to the actual attorney or agency collection fee incurred by CME. Overtime rates are applicable after eight hours Monday through Friday, and all day Saturday and Sunday, and charged at one and one-half times the quoted rate. Holidays are charged at two times the quoted rate. Expenses incurred for reproduction, postage handling, photographs and for services including subconsultants equipment and facilities not furnished by CME are charged to the Client at cost plus fifteen percent. Automobile travel may be charged at the current rate per mile allowed by the Internal Revenue Service..

Standard of Care - Services performed by CME under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. NO OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE.

Contaminated Material - It is understood that CME is not, and has no responsibility as a handler, generator, operator, treater or storer, transporter or disposer of hazardous or toxic substances found or identified at any site. Client shall undertake or arrange for, either directly or indirectly through other contractors, the handling, removal, treatment, storage, transportation and disposal of hazardous substances or constituents found or identified at any site.

Utilities - In the execution of the work, CME will take all reasonable precautions to avoid damage or injury to subterranean structures or utilities. The Client agrees to hold CME harmless for any damages to subterranean structures which are not called to CME's attention and/or not correctly shown on the plans furnished.





Right of Entry/Worksite - Client will provide for right of entry for CME personnel and equipment necessary to complete the work. While CME will take all reasonable precautions to minimize any damage to the property it is understood by Client that in the normal course of some damage may occur, the correction of which is not part of this agreement.

Client shall furnish or cause to be furnished to CME all documents and information known to Client that relate to the identity, location, quantity, nature or characteristics of any hazardous or toxic substances at, on or under the site. In addition, Client will furnish or cause to be furnished such other information on surface and subsurface site conditions required by CME for proper performance of its services. CME shall be entitled to rely on Client provided documents and information in performing the services required under this Agreement; however, CME assumes no responsibility or liability for their accuracy or completeness.

CME will not direct, supervise or control the work of contractors or their subcontractors. CME services will not include a review or evaluation of the contractor's (or subcontractor's) safety measures.

CME shall be responsible only for its activities and that of its employees on any site. Neither the professional activities nor the presence of CME or its employees or subcontractors on a site shall imply that CME controls the operations of others, nor shall this be construed to be an acceptance by CME of any responsibility for jobsite safety.

Indemnification - To the full extent permitted by law, Client shall indemnify, defend and hold harmless CME and its subcontractors, consultants, agents, officers, directors and employees (herein collectively referred to as Engineer) from and against all claims, damages, losses and expenses, whether direct, indirect or consequential, including but not limited to fees and charges of attorneys and court and arbitration costs, arising out of or resulting from the services of work of Engineer or any claims against Engineer arising from the acts, omissions of work of others, unless it is proven in a court of competent jurisdiction that the Engineer is guilty of negligence or willful misconduct in connection with the services and such negligence or willful misconduct was the sole cause of the damages, claims and liabilities.

Client agrees to indemnify and hold harmless Engineer from and against all claims, damages, losses and expenses, direct or indirect, and consequential damages, including but not limited to fees and charges of attorneys and court and arbitration costs, brought by any person or entity, or claims against Engineer which arise out of, are related to, or are based upon, the actual or threatened dispersal, discharge, escape, release or saturation or smoke, vapors, soot, fumes, acids, alkalis, toxic chemical, radioactive materials, liquids, gases or any other material, upon, in or into the surface or subsurface soil; water or watercourse; objects; or any tangible or intangible matter.

To the fullest extent permitted by law, such indemnification shall apply regardless of the fault, negligence, breach of warranty or contract or strict liability of Engineer. This indemnification shall not apply to claims, damages, losses or expenses which are determined by a court of competent jurisdiction to be the sole result of negligence or willful misconduct by the Engineer of obligations under this Agreement.

Limitations of Liability - CME's total liability to Client for any and all injuries, claims, losses, expenses or damages whatsoever arising out of, or in any way related to, this Agreement from any cause or causes, including but not limited to CME's negligence, errors, omissions, strict liability, breach of contract or breach of warranty, shall not exceed the total contract amount for the services provided by CME or \$50,000, whichever is less.

In no event shall CME be liable for consequential damages, including, without limitation, loss of use or loss of profits, incurred by Client or their subsidiaries or successors, regardless of whether such claim is based upon alleged breach of contract, willful misconduct, or negligent act or omission.

Professional services rendered for a Client shall be provided for that Client. The Client is responsible for the proper operation and use of the subject facilities and/or report and nothing herein shall provide any rights to any third party. The Client, in authorizing CME to proceed, acknowledges that the professional responsibility is limited.

Termination - This Agreement may be terminated by either party upon fourteen (14) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, CME shall be paid for services performed to the termination notice date plus reasonable termination expenses.

In the event of termination, or suspension for more than three (3) months, prior to completion of all work contemplated by this Agreement, CME may complete such analyses and records as are necessary to complete its files and may also complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension shall include all direct costs of CME in completing such analyses, records and reports.

Assigns - The Client may not delegate, assign, sublet or transfer his duties or interests in this Agreement without the written consent of CME.

This agreement shall not create any rights or benefits to parties other than the Client and CME, except such other rights as may be specifically called for herein.

