CVE CHAGRIN VALLEY ENGINEERING, LTD
Creative Engineers Intelligent Solutions

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March 7, 2024

City of Parma
6611 Ridge Road
Parma, Ohio 44129
Attn: Mr. Hasmukh Patel

Re: North & West Linden Lane Septic Abatement Project Phase I

Dear Mr. Patel:

Chagrin Valley Engineering (CVE) has developed the following Scope of Services to provide design services and construction support for Phase I of the North and West Linden Lane Septic Abatement Project.

PROJECT LIMITS:

The complete project area will include approximately 158 homes on five streets (North, West & East Linden Lane, Martin Drive and W130th) within the southwest corner of the City.

As part of this Phase, CVE will design the first phase of the work to allow for the extension of the future phases and complete septic tank abatement of the above referenced area. Phase I will include the design of a sanitary sewer to service approximately 55 homes on the east and west side of the street starting at 7426 North Linden and extending south to/near 7674 North Linden and also including the homes on Martin Drive. The project will be designed to service the lowest level of the homes as determined by field and questionnaires for the entire service area for the future extensions as required.

SCOPE OF SERVICES:

Task 1 - Pre-Design
Task 2 – Design
Task 3 – Construction Administration
Task 4 - Allowances
- Specific Allowance 1 – Design Contingency
- Specific Allowance 2 – Environmental Permitting
- Specific Allowance 3 – Geotechnical Investigation
- Specific Allowance 4 – Easement Preparation

The Scope of Services for the Project shall consist of the tasks outlined above. For design projects, CVE shall provide services necessary to develop and produce a complete detailed design package culminating in a package suitable for Project advertising and bidding as per Ohio Revised Code (ORC) requirements. The proposed scope and fee are based on the City of Parma handling the public bidding process.

EXHIBIT
A
L-45-24

CVE shall communicate with City and County personnel to deliver the Scope of Services in compliance with the respective reviewing and approving agency. CVE shall carefully consider the input by City and County staff; however, based on CVE's own experience and ability, CVE shall be solely responsible for providing complete, quality deliverables in accordance with the requirements of the Scope of Services.

Deliverable and Data Standards

All deliverables shall be submitted in both PDF and native file format. Submitted PDFs shall be created from the native file using the appropriate software. Scanned copies to create PDFs are not acceptable. In general, each deliverable shall be provided as one optimized PDF document less than 100 MB. The PDF document shall be indexed and bookmarked to match the table of contents or main sections of the document and provided as an unprotected or unsecured document.

Project Schedule

CVE shall utilize the following schedule milestones in the preparation of the Project baseline schedule (assumptions are based on an April 1st Notice To Proceed), unless other dates are approved by the City:

Task 1 - Pre-Design – Completed by May 1st
Task 2 - Detailed Design – 7 months from NTP
Task 3 – Construction Administration – 02/2025 – 10/2025

Project Management

Project management is a critical activity to be integrated with the execution of all Tasks. CVE shall utilize procedures related to cost estimating, scheduling, project documentation, risk management, QA/QC, and others as necessary to enhance budget, scope, and time management for the Project.

In order to ensure that this Project is successfully completed in a timely manner and to the satisfaction of the City, project management items include but are not limited to the following:

- Project Progress Summary/Schedule Update: CVE shall deliver progress updates to the City at the 50%, 75%, 90% and 100% design and monthly prior to percent design submittals.
- Project Meetings: CVE's Project Manager and other team members shall meet via teams with City and County as needed to review each plan submittal.
- CVE shall prepare and deliver an agenda, updated schedule, and revised action items prior to the next meeting. All submittals for progress meetings shall be provided in advance in Word or Excel format.
- CVE shall make personnel available for meetings with other agencies, utilities, and stakeholders to answer questions pertaining to design elements of the Project.

- CVE will be responsible for taking the lead in organizing, planning, and conducting each meeting with other agencies, utilities, and stakeholders.

TASK 1: PRE-DESIGN

The Pre-Design Task shall be carried out to cost-effectively develop and evaluate the proposed sewer depth, alignment, and limits of Phase I. In general, this work includes the following steps:

- Baseline Facilities Planning Document
- Review and Evaluation of Existing Information
- Send out stakeholders questionnaires and field investigations
- Available record drawings and as-built drawings
- Permitting Evaluation and Environmental Assessment Coordination
- Alternatives Development and Evaluation and final sanitary sewer alignment and depth
- Final Facilities Plan Document
- Surveying (See Task 1A: Surveying)

All Task 1 deliverables shall be submitted as described in the Deliverable and Data Standards section. CVE shall provide exhibits and estimates for the City's required submittals to add into a Facilities Plan Document prepared by the City to satisfy the WPCLF project requirements.

Task 1A: Surveying

CVE shall gather data necessary to properly map the existing contours and existing conditions of the site. Baseline survey information shall be tied to the state plane coordinate system, North American Datum 83 (NAD83), and North American Vertical Datum 88 (NAVD 88) datum shall be used for vertical datum. Structures to be surveyed shall include those that may be impacted by construction or be required for the project design.

CVE shall survey to the extent described below:

- Locate critical elevations and establish a reference benchmark circuit for all construction.
- Baseline of Survey – Establish horizontal control points with permanent markers and including preparation of Baseline of Survey Control drawings.
- Bench Marks – Establish bench marks along the Baseline of Survey, including setting iron pin and caps along survey baseline at angle points. A minimum of Two (2) bench marks will be established.
- Street Alignments – Establish the centerline of street and right-of-way lines; street centerline monuments shall be located and referenced.
- Collect topographic information at enough density to generate 1-foot contours with traverses that close to within 1:5000p and measurements and computations that are verifiable.
- Topographic Surveying and Base Mapping – Perform detailed topographic surveys and base mapping.

- Manholes/Catch Basin – Collect rim elevations, grate elevations, pipe sizes, length, identify material, and invert elevations for all existing structures (storm and sanitary) within the survey area. Storm and sanitary sewer manholes shall be opened where possible to obtain pipe invert elevations, sizes, and flow directions. CVE shall perform confined space entry in structures to obtain pipe or structure information not obtainable from the surface.
- Parcel Information/Property Surveys – Perform all record research and procure all information necessary to establish existing right-of-way, property, and existing easement lines. Other parcels adjoining the project area shall be mapped from County records (tax maps, GIS mapping, etc.). Parcels shall be researched to provide owner, address, and parcel ID numbers.
- Detailed R/W plans will be developed and limited to frontage parcels and remaining properties will be depicted utilizing County GIS data.
- Fixed Improvements - Roadway surveys shall include the location and identification of: street names, rights-of-way, existing edge of pavement limits, utilities as described previously, gutters, curb inlets, sidewalks, medians, guardrail, road signs, curbs, road centerlines, walls, inlets, culvert materials, size, inverts, and driveway type (i.e., grass, paved, gravel etc.). Locate and identify fences including type and size adjacent to the streets and within the survey limits.
- Locate and identify trees 3 inches DBH and larger including species type within the survey area (excluding trees within wooded areas). Also locate and label any significant plants/shrubs as observed within the survey area (excluding plants/shrubs within wooded or brushy areas).
- Utilities – Identify and horizontally locate existing utilities within the survey area, including but not limited to gas, water, storm sewer, sanitary sewer, force main, cable, overhead power/telephone and poles, geotechnical investigation locations and all related utility appurtenances (including but not limited to: valve boxes, fire hydrants, sampling stations, splice boxes, conduit pull boxes, manholes, backflow prevention devices, meters, aerial pipeline crossings, etc.). CVE shall contact the Ohio Utilities Protection Service and other agencies for existing plans and field markings of subsurface utilities. CVE shall survey the location of visible utility facilities (manholes, valves, etc.) and field markings provided by OUPS and/or others. The locations shall be correlated with existing plans provided by OUPS, the County, and others. Known unresolved or missing utility information shall be summarized and provided on the survey or in a separate document. All utility contact information is to be maintained in a utility contact document that provides utility contact information, contact log, and status. Assumed depth information so obtained shall be provided and referenced as to the source of the information. Vertical elevations of utilities or other items that will be potentially in conflict with the PROJECT shall also be surveyed.
- The Survey will be mapped at a scale of 1" = 20' in an AutoCAD format. A legend of symbols and abbreviations will be provided.

TASK 2: DESIGN

CVE shall develop drawings and specifications and integrate the City's standard specifications (including Instructions to Bidders, General Terms and Conditions, Special Conditions, Agreement) and Bid Booklet for the PROJECT to produce construction bid documents suitable for competitive bidding purposes to produce a quality, cost-effective project. The drawings will indicate the layout, plans, sections, and details of the PROJECT.

The design scope of work may include, but not be limited to, sanitary sewer design, service laterals, risers, pavement replacement, maintenance of traffic, stream crossing, estimating probable construction cost and final acceptance documents as per the City of Parma standards and Cuyahoga County Sanitary Engineering Uniform Standards for Sewerage Improvements.

All plan development and layering will be done as per CVE standards and not prepared as a Cuyahoga County Engineering plan set or ODOT format. All quantities will be included in the contract documents and not included as a general summary on the improvement plans.

All Task 2 deliverables shall be submitted as described above in the Deliverable and Data Standards section.

Task 2A: 50% Design

The 60% design submittal, based on the final sanitary sewer alignment finalized as part of the Task 1. At the 50% design stage, the design will incorporate major design concepts, reflect decisions made to date, and facilitate advancement of the design through the remaining design stages. This work includes the following steps and document submittals:

- Geotechnical Investigation (See Specific Allowance 3)
- Title sheet, plan and profile
- Table of Contents for specifications and quantities
- Estimate of Probable Construction Cost (Based on 50% Submittal)

Task 2B: 75% Design Submittal

The 75% design submittal is a detailed presentation of the design configurations and parameters established in the Pre-Design and comments from the 50% submittal. The 75% submittal shall include, at a minimum, the following:

- Drawings
  - Title Sheet with Index of Sheets
  - Plan and profile
  - General and specific notes as appropriate
  - Details

- All existing utilities and preliminary concepts for any necessary utility support and/or relocation
- Draft Erosion and Sedimentation Control plans that coincide with the Storm Water Pollution Prevention Plan (SWPPP)

- Specifications
  - Table of Contents with technical specifications
  - Bid Items
- Utility Coordination, including the following:
  - Preliminary Plan submittal to utility companies
- Geotechnical Report Data
- Draft Permit Applications, including but not limited to:
  - Storm Water Pollution Prevention Plan (SWPPP) using the NEORSD standard template outline if more than one (1) acre is planned to be disturbed. CVE shall prepare the SWPPP and supporting documents as may be required to obtain a Notice of Intent permit from the Ohio EPA and comply with local stormwater permitting regulations.
  - Permit to Install (PTI) Application for the Ohio EPA.
- Probable Construction Cost (Based on 75% Submittal)
- Design Review Meeting/Workshop - CVE shall organize and lead a 75% Design Review Meeting/Workshop with the City and County, if requested, representatives to present the design and discuss comments regarding the design and final recommendations for phased construction. The presentation shall include an explanation of key decisions made during the pre-design and design task. CVE will prepare minutes of the Design Review Meeting/Workshop and address comments in the final design.

Task 2C: 90% Design

The 90% percent design submittal serves as the pre-final design submittal including all design disciplines and components and considering all comments and decisions made during the previous submittal reviews and meetings. The 90% submittal shall include, at a minimum, the following:

- Drawings
  - Title Sheet with Index of Sheets
  - Final Plan and Profile
  - General and specific notes as appropriate
  - Utility support and/or relocation
  - Erosion and Sedimentation Control plans that coincide with the Storm Water Pollution Prevention Plan (SWPPP)
- Specifications
  - Complete set of Specifications to City and County standards
- Utility Coordination, including the following:
  - Final utility conflict resolution/relocations
- Geotechnical Report Data
- Permit applications, including but not limited to:
  - Storm Water Pollution Prevention Plan (SWPPP) using the NEORSD standard template outline if more than one (1) acre is planned to be

disturbed. CVE shall prepare the SWPPP and supporting documents as may be required to obtain a Notice of Intent permit from the Ohio EPA and comply with local stormwater permitting regulations.
    - Permit to Install (PTI) Application for the Ohio EPA.
- Estimate of Probable Construction Cost (Based on 90% submittal)

Task 2D: 100% Final Design

The final design will be represented in the documents to be used for bidding purposes, including final drawings, specifications, cost estimates, and project schedules. The Final design submittal will incorporate all corrections resulting from the previous submittal reviews and meetings. A final design review meeting may be held, at the City's/County's discretion, if significant 90% detailed design delivery issues are discovered during the 90% review. If the final design review meeting is held, CVE shall prepare an agenda, attend the meeting, prepare meeting minutes, and revise the drawings and specifications as necessary based on the outcome of the final review meeting as part of the base scope of services.

The Final design submittal shall include, at a minimum, the following:

- All Drawings
- All Specifications
- Phased Construction Plan and Schedule(s)
- Final Engineer's Estimate of Probable Construction Cost
- Summary of all permits and approvals for the Project(s).

Task 3: Construction Administration

CVE will provide construction administration services to assist the City with the bidding, construction and final close out of the project. CVE will provide the following service at a minimum as it relates to this Task:

- Facilitate, attend a preconstruction meeting, including agenda preparation, meeting minutes, prepare addenda(s), respond to request for information (RFI), attend bid opening, tabulate bid results, review bidder qualifications and recommendations for project award
- Review and comment on shop drawing submittal
- Respond to RFI's, progress meetings, field visits and additional work requests

TASK 4: SPECIFIC ALLOWANCES

The City may require services from CVE for items not specifically included in the tasks listed above. These services may consist of additional investigative and/or design services based on information found during the tasks listed above. The funds associated with specific allowances may only be used following written authorization of the City.

The following Specific Allowances may be authorized as part of this PROJECT:

Task 4A: Design Contingency

The City may require additional services from CVE for items not specifically included in Tasks 1 – 3 or required due to a change in scope as a result of unforeseen conditions or permitting requirements. These services may consist of additional investigative and/or design services. The funds associated with specific allowances may only be used following written authorization of the City.

Task 4B: Environmental Permitting & Assistance

This allowance may be used for any necessary Phase I and Phase II Environmental Site Assessments (ESAs) and Ecological Site Assessments (ECOs), if required. CVE shall coordinate efforts for any separate Environmental Services Contract and provide input regarding the need for and locations of Phase I and Phase II ESAs and ECOs. Any ESA and/or ECO work performed by others shall be reviewed by the CVE, and the necessary provisions shall be incorporated into the Contract Documents by the CVE, during the design phase of the Project.

Task 4C: Geotechnical Investigation

This allowance will be used to evaluate the subsurface and surface materials discovered, conditions which a construction contractor could expect to encounter, appropriate construction techniques, support requirements, slope stability analysis, and impact of surface and subsurface conditions on cost and risk. All reports shall be signed by a professional engineer registered in the State of Ohio.

Under the supervision of CVE, the geotechnical professionals shall coordinate the services to perform all soil borings, rock corings, and pavement corings, collect all soil and rock samples, install any necessary instrumentation, and provide all testing services required for the development of geotechnical reports as described herein. The soil boring logs and report will be included on the final plan and specifications documents for review during design and bidding process.

Task 4D: Easement Preparation

If required CVE would prepare easement documents for either permanent or temporary acquisition as a result of the final design. CVE would provide the easement documents per the City's standards and provide the documents to the City for their negotiations with the respective stakeholder.

PROJECT DESIGN COST

N & W Linden Lane Septic Abandonment Project Phase I will be performed on a lump sum fee basis unless otherwise noted:

Task 1 Pre-Design		*$30,300*
Task 2 Design		*$78,200*
Task 3 Construction Administration (Hourly Not To Exceed)		*$18,000*
**Task 4 Specific Allowance*		*$57,500*
Task 4A – Design Allowance (Hourly)	*$30,000*	
Task 4B – Environmental Permitting & Assistance	*$12,000*	
Task 4C – Geotechnical Investigation	*$8,500*	
Task 4D – Easement Preparation (Hourly)	*$7,000*	

*: If authorized

Invoices will be submitted monthly and 30 net. Hourly rates will be based on the attached 2024 hourly rates per staff classification – Exhibit A. Each invoice will be supplied with a percentage of completion for lump sum tasks and an hourly breakdown per staff member classification for authorized task order as noted above.

Thank you for the opportunity to provide this proposal to perform professional services in support of this project.

Respectfully Submitted,
Chagrin Valley Engineering, Ltd.

Amy Lyon-Galvin, PE
Water Resource Project Manager

EXHIBIT A

CVE CHAGRIN VALLEY ENGINEERING, LTD.
Creative Engineers Intelligent Solutions

2024 HOURLY RATES

Chagrin Valley Engineering, Ltd.

Engineer, Project Manager	$180.00
Engineer, P.E.	$142.00
Engineer, E.I.	$120.00
Traffic Engineer, P.E., PTOE	$205.00
Traffic Engineer, P.E.	$173.00
Wetland Scientist, P.W.S.	$147.00
Certified Professional Erosion Control Specialist, CPESC	$110.00
Environmental Technician	$105.00
Landscape Architect	$136.00
CAD Designer	$100.00
GIS Analyst	$110.00
Professional Surveyor	$147.00
1 Man Survey Crew	$147.00
2 Man Survey Crew	$163.00
3 Man Survey Crew	$195.00
1 Man Survey Crew- Site Layout	$155.00
2 Man Survey Crew-Site Layout	$184.00
2 Man Survey Crew-Structural Layout	$220.00
Clerical	$58.00

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