

November 22, 2024

City of Brecksville
9069 Brecksville Road
Brecksville, Ohio 44141

Attention: Mayor Daryl J. Kingston

Reference: Proposal for Subsurface Exploration
Sentinel Drive - Culvert Replacement
4800/4809 Sentinel Drive
Brecksville, Cuyahoga County, Ohio

CTL Proposal No. 24050075CLEPPL

Mayor Kingston:

In response to your request, CTL Engineering, Inc. is pleased to submit this proposal for Geotechnical Investigation services for the referenced project.

PROJECT DESCRIPTION AND SCOPE OF WORK

The project consists of replacing the existing culvert with a 4-sided culvert and cast-in-place headwalls. CTL plans to advance 1 soil boring at 30 feet deep or rock refusal whichever occurs first. CTL will obtain soil samples at 2.5-foot interval in the upper 20 feet and at 5-foot interval thereafter. Based on the collected soil data, CTL will provide recommendations for culvert and headwall support including soil data for scour analysis if needed.

PROCEDURES

CTL services will include the following items:

- A. Mark the soil boring locations (surface elevations by others).
- B. Contact Ohio Utility Protection Services (OUPS) to locate underground utilities. Borings, which are in the area of utilities will be offset and noted on the site plan.
- C. Drill the test borings in the proposed area.
- D. Field and laboratory testing in accordance with ASTM specifications.
- E. Engineering evaluation and reporting to include:
 1. General description of site.

2. Boring logs and soil profile to include:
 - (a) Surface elevation at each test boring location.
 - (b) Thickness of topsoil fills and subsoil strata.
 - (c) Groundwater encountered during drilling, and at completion.
 - (d) Standard penetration and moisture content as a function of depth.
3. Existing subsurface conditions.
4. Soil data for Scour Analysis
5. Groundwater management recommendations.
6. Recommendations for culvert and wingwall support.

COST ESTIMATE

Field Testing:	\$2,000.00
Laboratory Testing:	\$850.00
Engineering Service:	<u>\$2,000.00</u>
Estimated Total Fee:	\$4,800.00

CONTINGENCIES

This proposal does not include the costs incurred due to any unforeseen conditions. Whenever the actual amount of work will exceed the estimated quantity, the client will be notified and authorization will be obtained, prior to CTL performing additional work. In addition, this information is proprietary and confidential and CTL assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than City of Brecksville and their Representatives.

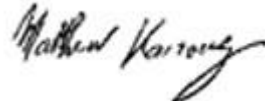
SCHEDULE

CTL can start the drilling within 7 to 10 days of authorization. The final report will be submitted within 25 to 30 working days of authorization.

CLOSING

CTL is committed to provide comprehensive and quality services to its clients, and is confident that our services are commensurate with your professional expectations. We sincerely appreciate the opportunity to provide this cost proposal and look forward to working with you. Should you have any questions, please feel free to contact me at (330) 220-8900.

Respectfully submitted,
CTL ENGINEERING, INC.



H. Matthew Kairouz,
P.E. Project Engineer

