



March 12, 2021

Mr. Brian Higgins
Public Service Director
Parma City Hall
6611 Ridge Road
Parma, Ohio 44129

**Re: Brookview Boulevard Water Main Replacement
Proposal for Engineering / Surveying Services**


Dear Mr. Higgins:

CT Consultants is pleased to offer this proposal to undertake professional surveying and engineering services for the water main replacement on Brookview Boulevard.

Our proposal details our scope of services and proposed fee. The engineering services are based upon the planning estimate of \$1,109,250 for construction as established by the City of Parma and the Cleveland Division of Water. Our experience serving the Cleveland Division of Water for a number of years in their Suburban Water Main Renewal Program will help to streamline the coordination and review with them on the City's behalf. Should this proposal be acceptable, please advise us on the form of Agreement. CT can provide a standard EJCDC form if requested.

We appreciate this opportunity to serve you and the City of Parma; and welcome your review and any questions.

Respectfully,
CT CONSULTANTS, INC.


Richard J. Lafelice, PE, PS
Vice President

Encl: Scope of Services/Fee

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PROPOSAL FOR PROFESSIONAL SERVICES

BROOKVIEW BOULEVARD WATER MAIN REPLACEMENT ENGINEERING AND SURVEYING SERVICES CITY OF PARMA, OHIO



Scope of Services

The engineering and surveying services for the Brookview Boulevard Water Main Replacement Improvement was developed in accordance with the City's request to prepare detailed construction drawings; specifications; and, contract documents for the replacement of approximately 4,300 LF of 6-inch waterline; in addition to cross connections at several intersections, between State and Broadview Roads. It is anticipated that a new 8-inch water main will be designed and installed. Service connections on the existing 6-inch waterline will be removed and reconnected to the new 8-inch main for approximately 173 properties. The City of Parma (City) has indicated the project design and construction is funded, by reimbursement, through the Suburban Water Main Renewal Program administered by the City of Cleveland Division of Water.

Professional services by CT Consultants, Inc. (CT) are presented herein and offered as follows:

- I. **Due Diligence Investigations & Preliminary Engineering**
- II. **Engineering Design, Permitting & Coordination**
- III. **Contract Documents**
- IV. **Construction Phase Services (If Authorized)**

- **Observations:** Brookview Boulevard is a 2-lane residential roadway with some commercial properties at the termini locations at State and Broadview Roads. The corridor is an asphalt pavement/sandstone curbs with tree lawns and sidewalks. There is limited overhead utility lines along this segment with what appears to be sanitary/storm sewers in the pavement and the existing waterline on the south side of the street. Line valves can be seen on the right-of-way extended at each intersection. An initial option for locating the new water main appears to be the tree lawn on the north side of the street.
 - The design will include instructions to the Contractor for the maintenance of traffic.
 - We intend to work closely with the City throughout this project to facilitate a timely review of the design documents.
 - With the City approval, CT will coordinate reviews and approvals from the Cleveland Division of Water (CWD).
- **Meetings:** Regular meetings to keep the City informed, in our experience, helps to advance project delivery. CT has ample capacity to expedite design but it requires an active, collaborative approach so critical decisions on design issues like alignment can be made effectively and efficiently.

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- i. **Due Diligence Investigations & Preliminary Engineering:** Successful projects begin with identifying the goals, objectives, and key issues at the outset. We will journalize this in a Pre-Design meeting and at the same time, put the utilities on notice. The meeting will also establish communication protocols, confirm the regulatory approval list, budget review and schedule. Minutes will be prepared and distributed within three (3) days.
 - a. **Geotechnical:** CT will locate and stake soil borings for our subconsultant, Intertek-PSI. We will coordinate their scope to obtain subsurface and pavement information to assist in design.
 - b. **Survey/Base-Mapping:** CT will use the Ohio State Plane Coordinate System, North Zone NAD 83 Horizontal Datum, and NAVD88 Vertical Datum to perform a Corridor Topographic/Existing Conditions Survey by ground mapping techniques. We will establish by survey, using available monumentation, and record information, the centerline and right of way limits of Brookview Boulevard. The property lines of the parcels adjoining Brookview Boulevard will be depicted graphically through the use of the Cuyahoga County GIS parcel line work, Cuyahoga County tax map Information, and ownership information taken from the Cuyahoga County Auditor's website. CT will gather horizontal and vertical data at strategic locations, and at approximate 50 station intervals to include high and low areas in-between stations, to create a one (1) foot contour interval map.
 1. CT will contact the Ohio811 utility service to request physical markings of publically owned and franchise utilities along the proposed route as well as requesting plans be sent, CT Land Services will follow-up with OUPS and Utility Companies in hopes utility maps are provided.
 2. Natural and man-made features will be located, to generally include but not limited to, above and underground observed utilities, power or light poles, sidewalks, private and public drives, if sanitary or storm systems are observed, CT will attempt to gain access by way of manholes, to assess size and depth of sewer lines. Isolated trees with a diameter in excess of 12 inches or greater at diameter at breast heights [dbh]) will be either individually located or the limits of heavily wooded areas located depending on site conditions (individual trees located will only be within the areas of potential construction).
 3. Up to three (3) project benchmarks will be established for future use, each benchmark will be set in areas of where site improvements are not anticipated and be assigned horizontal and vertical data. Each benchmark established will have Northing, Easting and Vertical values assigned for future use.

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4. CT will prepare and provide an electronic version of the base map and control drawing in AutoCAD Civil 3D to CT CAD Standards and work flows.
 - c. **Utility Coordination:** We will contact utility company representatives through our established relationships within those organizations early and repeatedly, if necessary, to obtain information pertinent to the project (e.g., record plans of their facilities, information regarding pending projects within the corridor, current review and approval times, etc.). We will continue this outreach through the end of design (we will provide final plans to the utility companies prior to bidding to ensure that, should there be any remaining issues, we have the time to resolve them prior to construction).
 - d. **Preliminary Engineering:** Preliminary plans are to be submitted to the City for review before proceeding with final construction documents. The preliminary design plans will include final survey, location of existing utilities to the extent the information is provided or discovered, preliminary water main alignment, and an initial engineer's estimate of probable construction cost (EOPCC). Traffic maintenance will be addressed to provide input and review from public safety forces, if applicable.
- Note:** CT will advise and consider a process for the verification of lead services (if any).
- R/W; Easements or Work Agreements (not included):** It is anticipated that the project will be confined to the street R/W. CT staff is ODOT prequalified in Project Management, Title Research, Value Analysis, Negotiations and Closings should property acquisition be necessary.
- II. **Engineering Design, Permitting & Coordination:** Upon review and approval of the preliminary plans, we will prepare final construction drawings, specifications, and a detailed engineer's estimate of probable construction cost to 90% completion to allow stakeholders (City of Parma and CWD) an opportunity to provide final input and comment. Plans will include applicable notes for instructions to the contractor determined to be important to a successful bid package. Final construction plans and details will be advanced to 100% completion.
 - III. **Contract Documents:** We will assist the City with the submittal of complete bid documents for bidding the project. CT will coordinate the assembly of the Front-End documents including the General Conditions, Supplemental Conditions, Bid and Contract Forms per the City's requirements.
 - IV. **Construction Phase Services (If Authorized):** CT will be available to address questions during construction of the new waterline relative to the design (RFI's). An allocation of 8 manhours is included for this service.

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Quality Assurance & Project Delivery: We will coordinate our efforts to provide a design for the project that can be installed in the shortest time frame that is feasible. CT will utilize experienced construction staff in water main installation at the preliminary design phase and at the 90% completion point to ensure constructability and that the construction plans are presented in the best clarity for prospective bidders.

Professional Fees

Based on the scope of services as written and presented, CT Consultants proposes to be compensated on an hourly, not to exceed fee basis; as shown below:

I. Due Diligence Investigations & Preliminary Engineering	\$29,200
<i>a. Geotechnical Engineering Services (LS)</i>	\$ 6,000
II. Engineering Design, Permitting & Coordination	\$50,000
III. Contract Documents	\$ 2,500
IV. Construction Phase Services (If Authorized)	\$ 1,000
TOTAL FEE	<u>\$88,700</u>

- The Engineer reserves the option to alter budgets between phases without exceeding the total fee authorized by the City. No additional services or fee shall be provided without prior written authorization from the City.
- The fee estimate includes and accounts for direct labor, overhead and profit. It does not include applicable reimbursable expenses estimated to be **\$500**.
- Invoices will be prepared monthly and based upon the actual manhours incurred at our standard billing rates; plus reimbursable expenses, if any.
- It is mutually understood total fees are subject to adjustment based on the accepted bid price of the work; if deemed appropriate by both parties.

Additional Services

If authorized in writing, the Engineer shall furnish or obtain from others Additional Services of the types listed below that are not included in the scope of this proposal:

1. Bidding Phase services; and, Construction Administration/Inspection.
2. Regulatory permit and review fees, recording fees and utility tap-in fees
3. Plans, drawings, applications, reports, or testing associated with moving, hauling, disposing, or treating hazardous material located on the site or generated from the improvements.

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4. Modify documents resulting from significant changes in general scope, extent, or character of the project or its design, including but not limited to changes in size, complexity, schedule, and revising previously accepted studies, reports, design documents, or contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes, or orders enacted subsequent to the preparation of such studies, reports or documents, or are due to any other causes beyond the Engineer's control.