

September 2, 2022

Mayor David McFadden  
Village of Tuxedo Park  
80 Lorillard  
Tuxedo Park, NY 10987

Re: Village of Tuxedo Park  
Mountain Road Water Main Replacement Design and Permitting Services  
Amendment No. 1

Dear Mr. McFadden:

Weston & Sampson is currently under contract to provide the Village of Tuxedo Park (Village) design, permitting, bidding, and construction phase services for the Mountain Road Water Main Replacement Project. The original scope of work for the Mountain Road section of work included a 6-inch Asbestos Concrete (AC) pipe that spans approximately 900 LF at the end of Mountain Road in the Town of Tuxedo of Tuxedo Lake that was reportedly installed in 1950. A figure depicting the limits of the water main is attached. This 70-year-old pipe has been experiencing frequent breaks and is of need of upgrade to a more resilient pipe material.

The assumptions within the original contract included the following:

- We do not anticipate the need for permanent construction easements as the current pipe alignments are within the Village rights-of-way. Furthermore, if temporary construction easements are required, the Village will address this separately and as such our work will not include any services related to easement delineation or acquisition, unless requested by the Village.
- The Village's GIS mapping shall be sufficient for development of base mapping of the project. If the water main configurations are different than shown on the plans, the Village will provide the necessary markups to update the plans to reflect existing conditions.
- Field mark-outs and survey by the Engineer is not required.
- Soil borings are not necessary and have not been included.
- A temporary water system design is not required for this design approach.
- The anticipated approach is to install a new water main within the same trench as the existing pipe. The water services will then be transitioned, one by one, to eliminate the need for a costly temporary water system and additional geotechnical evaluation that would be required by changing the alignment. This proposal is developed on a task basis, so the Village has the option to self-perform the installation, if it so chooses.

To kick off the project, Weston & Sampson evaluated the site and was informed by the Village staff of the following items:

- Water and sewer infrastructure (water valves, water service shutoffs, sanitary sewer manholes) is not visible and is either covered by landscaping and pavement.
- The existing sanitary sewer along Mountain Road did not have record mapping but is assumed to be located within the same trench as the water main. Current design standards require water and sewer infrastructure are required to be separated by 10-feet, horizontally. The water main will need to be relocated.
- Additional sections within the vicinity of Mountain Road should be replaced due to history of failures or unfavorable installation locations (under private structures).
- There are existing active HDPE gas mains and abandoned gas mains within the roadways which need to be located. Accurate record information is not available.

Village staff have reached out to the Town of Tuxedo to see if existing record mapping is available for the Town sanitary sewer, drainage, and gas piping. Unfortunately, useful maps were not able to be obtained.

Therefore, Weston & Sampson has prepared this amendment to achieve the following:

- Provide design services for the replacement of the water main within the Schoolhouse Road, Schoolhouse Lane, and Circle Drive areas.
- Perform topographic survey of the project area to develop accurate record mapping.
- Perform Subsurface Utility Engineering (SUE/Utility location) to locate the existing utility information to be included within the base mapping.
- Perform subsurface geotechnical investigations to determine depth to groundwater and presence of rock.
- Prepare an Engineering Report and associated supporting documents to submit this project for WIA grants funds.

Based on discussions with the Village, adjacent water mains to the Mountain Road water main are in similar condition and are in need of replacement. In some cases, Village infrastructure lies beneath existing residential structures, which in the event of a failure, would be extremely costly and time consuming to repair. Due to the magnitude of the cost of developing the necessary base mapping and geotechnical evaluations, Weston & Sampson has established two approaches for the requested additional water main replacement for the Village's consideration. One is the less expensive "immediate needs" approach and the second is an "all-in" approach addressing the entire neighborhood. A more elaborate description of each option is provided below:

#### Option 1

In addition to replacing the water main within Mountain Road, this option includes installation of a new water main located along Schoolhouse Lane and installation of a new connection to the water main in Rt. 17 to serve as the primary feed for the neighborhood. This approach eliminates the section of water main that currently goes under and existing residence, which currently serves as the primary feed to the neighborhood.

#### Option 2

This option includes all of the aspects included within option 1 as well as replacement of the remainder of Schoolhouse Road and Circle Drive. The service to Hillside Avenue shall remain and be reconnected to the new water main within Schoolhouse Road.

The anticipated tasks and steps necessary to complete this work are described in the Scope of Services below.

#### SCOPE OF SERVICES:

Upon written authorization to proceed, Weston & Sampson will immediately begin work which will include the following tasks.

**Task 1: Design:** Weston & Sampson proposes to provide the following design services for the project, based on the option selected. We propose the following tasks:

- Develop construction plans, profiles, details, and cross sections as necessary to accurately represent to the contractor the work to be performed.
- Develop technical specifications for the required work.
- Develop "front end" contract documents including such things as the Advertisement for Bid, Agreement, General and Special Conditions, Bid and Bid Bond Forms also conforming to CSI format.
- Develop a construction cost estimate for the work.

The scope of services as described above shall be provided for both options 1 and 2, however, the level of effort shall differ based on the magnitude of each option as reflected in the pricing provided in the section below.

Final submittal will include final construction plans and details, final technical specifications, and a front-end contract document, along with the final construction cost estimate. This task is proposed to be invoiced on a lump sum, percent complete basis as work progresses.

**Task 1A: Geotechnical Investigation:** Through the use of our subconsultant Cascade Environmental, we will provide geotechnical investigative services within the limits of the project area. The geotechnical investigation will include subsurface borings to determine depth to groundwater and location of rock. Soil borings will be spaced 100' apart along the proposed alignment. The quantity of soil borings will be dependent upon the option selected by the Village. This task will be included as a lump sum of the Design task based on the scope option chosen by the Village.

**Task 1B: Survey & SUE:** Through the use of our subconsultant S.Y. Kim Land Surveyor, P.C., the following survey and subsurface utility exploration (SUE) shall be provided:

- Survey corridor limits within the area of scope. The limits of the survey scope will include 10' from the ROW for Mountain Road, Schoolhouse Road, Schoolhouse Lane, and Circle Drive. This scope will vary based on the scope option the Village chooses to pursue.
- The survey bandwidth for the corridor survey portion will be 10' outside ROW or bldg. /porch face whichever is closer. School House Lane has no R.O.W. for most of it, therefore R.O.W. will be replaced with the edge of travel lanes.
- Located edge of traveled ways, sidewalks, curbs, driveways, buildings (within 10' of ROW), water and gas valves/ service shutoffs, hydrants, utility poles, walls and fences, tree lines, marked or visible utilities.
- Sewer manholes and catch basins, rims, inverts, pipe size and type.
- Provide S.U.E. Quality Level "B" for the location of all existing utilities.
- Houses within survey limits will be shown with minimum features and may be represented by tracing aerial imagery.
- Topography will be shown in 1' contours.
- Establish DigSafelyNY design ticket.
- Horizontal datum to be NY State Plane East Zone (NAD 1983) and Vertical Datum to be NAVD 1988 (Geoid 18).
- Recoverable control will be established throughout the project.
- Provide AutoCAD Civil3D digital basemap using S.Y. Kim standards.

This task will be included as a lump sum of the Design task based on the scope option chosen by the Village.

**Task 2: Permitting:** Our original fee assumed only Mountain Road work will be permitted under this contract. We have revised this fee to include Schoolhouse Lane, Schoolhouse Road, and Circle Drive, based on the selected scope options. We have included some additional time to resolve any comments or questions that may be asked during the permitting process as the design will be more complicated.

**Task 3: Bid Administration:** Weston & Sampson shall assist the Village with administering the public bidding process, including the following activities:

- Furnish bid advertisement for the Village to place in their official publication;
- Provide the Village with up to ten (10) complete sets of bidding documents;
- Attend one pre-bid meeting at the Village Office;
- Respond to questions from bidders and issue addenda, if required;
- Review bids, check references of the low bidder, prepare tabulation of bids, and issue a letter of recommendation of award.

Our original fee assumed only Mountain Road work will be conducted under this contract. We have revised this fee to include Schoolhouse Lane, Schoolhouse Road and Circle Drive based on scope options that the Village choose to pursue. We have included some additional time to resolve any questions during the bid phase and preparation of the conformed documents.

**Task 4: Construction Administration:** Assist the Village with Construction Administration including the following activities:

- Conform contracts for signature by Village and Contractor.
- Schedule and conduct a pre-construction meeting with Village, contractor, and engineer.
- Review schedules and shop drawings from contractor;

- Review and approve payments to the Contractor on monthly basis (2 expected)
- Provide engineer's certification at the conclusion of the project.
- Assist with contractor's closeout documents

Our original fee assumed only Mountain Road work will be conducted under this contract. We have revised this fee to include Schoolhouse Lane, Schoolhouse Road and Circle Drive based on scope options that the Village choose to pursue. We have included some additional time to administer the proper contract that will extend longer than originally anticipated. We anticipate that this will lead to more pay requests, potential change orders due to unforeseen existing conditions, and construction coordination. This task is proposed to be invoiced on a lump sum, percent complete basis as work progresses based on the scope option chosen by the Village.

**Task 5: Construction Inspection:** Weston & Sampson proposes to perform full time on-site observation of construction including maintaining on-site logs and materials quantity determinations. This work is proposed to be performed on an hourly rate basis and final cost may be more or less depending on contractor progress and other factors. Since the project scope has increased, we have included some additional time for more inspection, per select option.

For Option 1 we assume an additional four (4) weeks of active construction will be required. For Option 2 we assume an additional ten (10) weeks of active construction will be required. For budgeting purposes within our prior contract, we anticipated six weeks of construction for the Mountain Road portion of this work only. Our proposed cost for construction observation was based on an estimate of three hundred (300) hours of field engineering coverage including travel time and expenses for the anticipated 6-week construction period. This amendment now includes the additional time stipulated above for each option.

**Task 6: Water Infrastructure WIIA Grant Support Services:** Weston & Sampson proposes to provide the following services to support the Village in preparing an application for a New York State Water Infrastructure Improvement Act (WIIA) grant which could cover up to 60% of project costs for the Mountain Road Water Main Replacement Project. This effort shall include:

- Application Form – Weston & Sampson will provide technical information to the Village for incorporation the application form.
- Engineers Report – Prepare an Engineer's Report to conform with EFC Report guidelines. The report will include the required in-depth alternatives analysis and cost estimating. The report will be formatted in accordance with the Drinking Water State Revolving Fund (DWSRF) outline, as appropriate. This proposal assumes that the Village will provide the necessary system and user information required.
- Smart Growth Assessment Form - We will assist the Village with completing the Smart Growth Assessment Form to include within each application package.
- SEQR Documentation – As a rehabilitation or replace-in-kind project, it is our opinion that this projects is a SEQR Type II Action based on our experience with prior projects. We will provide the Village with draft resolution language to support its declaration of this project as Type II action. The Village shall consult with its attorney for confirmation that the projects meet the legal definition of a Type II action. The SEQR resolutions will have to be passed by the Village prior to the application deadline as a copy of each resolution will need to be included within the grant application submission package.
- SHPO Review Determination Letter - We will submit a State Historic Preservation Office (SHPO) project review request on behalf of the Village for each project. The SHPO determination letter will be included as part of the grant application package. This proposal assumes that this project will be considered No Impact by SHPO.

- Authorizing Resolution – We will include a copy of the Village authorized Bond Resolution OR Board Resolution within the grant application package that states the Village will provide necessary funding to complete the project if the grant is awarded.
- Development of preliminary plans – We will develop preliminary level plans to depict the necessary work based on the recommended alternative. This proposal assumes that the Village's GIS water system mapping is sufficient to develop preliminary level plans. Ultimately, soil borings to design the new main will be necessary.

Final submittal will include final construction plans and details, final technical specifications, and a front-end contract document, along with the final construction cost estimate. This task is proposed to be invoiced on a lump sum, percent complete basis as work progresses.

#### ASSUMPTIONS

Weston & Sampson has based this scope of services on the following understanding and assumptions:

- We do not anticipate the need for permanent construction easements as the current pipe alignments are within the Village rights-of-way. Furthermore, if temporary construction easements are required, the Village will address this separately and as such our work will not include any services related to easement delineation or acquisition, unless requested by the Village.
- A temporary water system design is not required for this design approach.

#### FEE SCHEDULE:

The proposed fees below include all labor, equipment, materials, and expenses required to complete the scope of work as outlined above. Weston & Sampson has provided two tables which outlines amended fees for both scope options described before. This is intended for clarity of fee proposals for each option. Our proposed fees are summarized in the tables below.

#### *Amendment Option 1: Mountain Rd. And Schoolhouse Ln. Only*

Project Task	Existing Contract	Amendment Option 1	Total
Task 1: Design (Lump Sum)	\$9,900	\$12,100	\$22,000
Task 1a: Geotechnical	-	\$20,700	\$20,700
Task 2b: Survey & SUE	-	\$53,300	\$53,300
Task 2: Permitting (Lump Sum)	\$2,900	\$2,200	\$5,100
Task 3: Bid Administration (Lump Sum)	\$3,400	\$1,200	\$4,600
Task 4: Construction Administration (Lump Sum)	\$5,100	\$4,300	\$9,400
Task 5: Construction Inspection (Hourly)	\$27,500	\$24,200	\$51,700
Task 6: WIIA Grant Support (Lump Sum)	-	\$6,700	\$6,700
<b>TOTAL FEE</b>	<b>\$48,800</b>	<b>\$124,700</b>	<b>\$173,500</b>

Initial Here to Authorize Option 1: \_\_\_\_\_

**Amendment Option 2: Entire Neighborhood**

Project Task	Existing Contract	Amendment Option 2	Total
Task 1: Design (Lump Sum)	\$9,900	\$21,300	\$31,200
Task 1a: Geotechnical	-	\$27,700	\$27,700
Task 2b: Survey & SUE	-	\$72,600	\$72,600
Task 2: Permitting (Lump Sum)	\$2,900	\$4,200	\$7,100
Task 3: Bid Administration (Lump Sum)	\$3,400	\$1,700	\$5,100
Task 4: Construction Administration (Lump Sum)	\$5,100	\$8,500	\$13,600
Task 5: Construction Inspection (Hourly)	\$27,500	\$60,500	\$88,000
Task 6: WIIA Grant Support (Lump Sum)	-	\$10,900	\$10,900
<b>TOTAL FEE</b>	<b>\$48,800</b>	<b>\$207,400</b>	<b>\$256,200</b>

Initial Here to Authorize Option 2: DCM

**PAYMENT**

Weston & Sampson understands the following:

- Project compensation will be invoiced on the basis of percent completion for lump sum tasks.
- Hourly tasks will be billed on time incurred.
- All expenses, including travel, communication, and reproduction costs are included in the estimated fees provided above.

**PERFORMANCE SCHEDULE:**

Weston & Sampson is prepared to proceed with work immediately upon execution of an agreement and receipt of written notice to proceed.

**GENERAL TERMS & CONDITIONS**

Weston & Sampson's services will be provided as described herein and in accordance with our previously approved Term's & Conditions under our current 2020 On-Call Services Agreement. To accept this amendment, please sign below. Once signed, return a copy of each to this office. We look forward to working with you on this assignment. Please feel free to call 518-463-4400 if you have any questions.

Sincerely,  
WESTON & SAMPSON, PE, LS, LA, PC



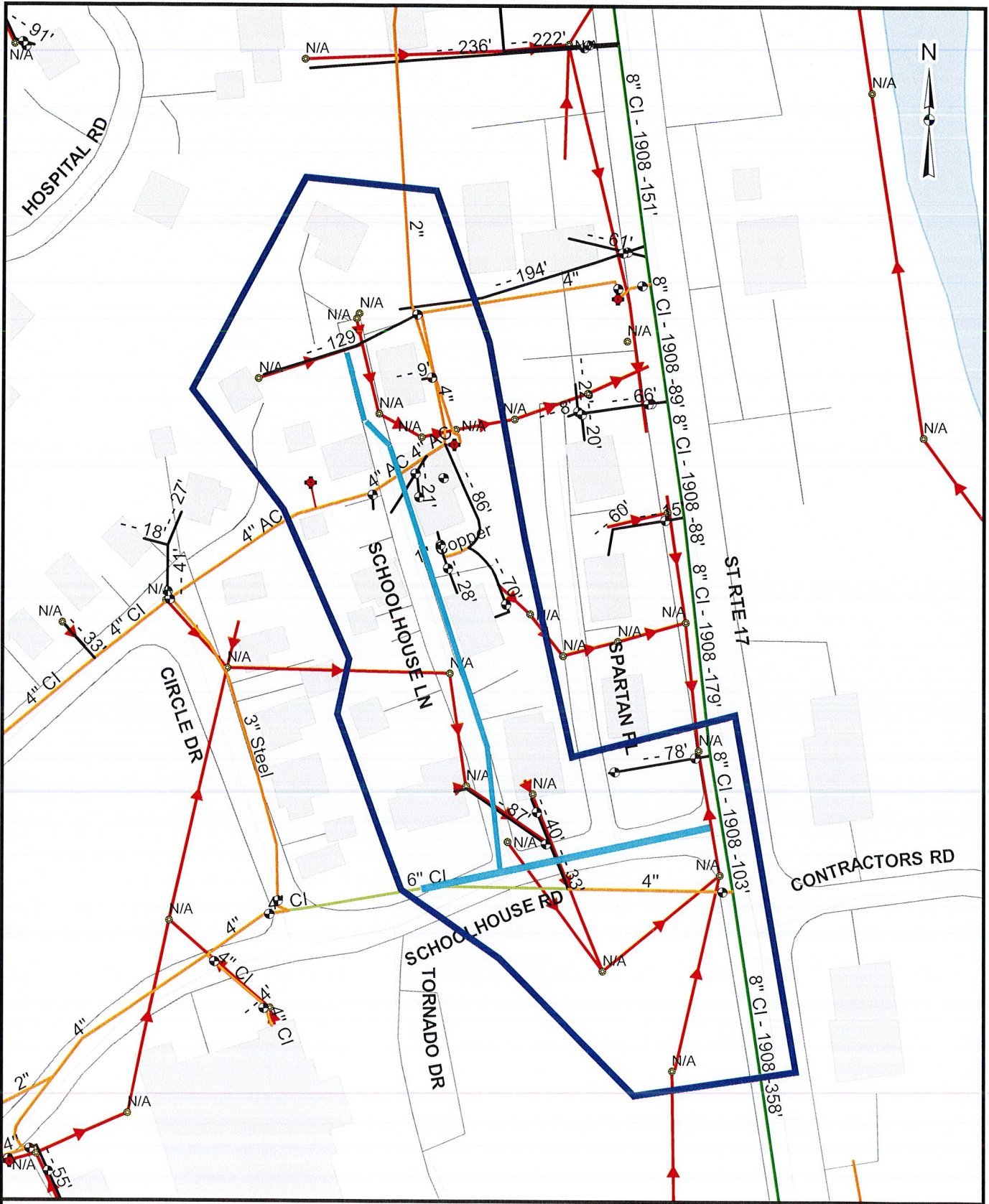
Joseph M. Zongol, PE  
Senior Associate

Accepted For:  
Village of Tuxedo Park

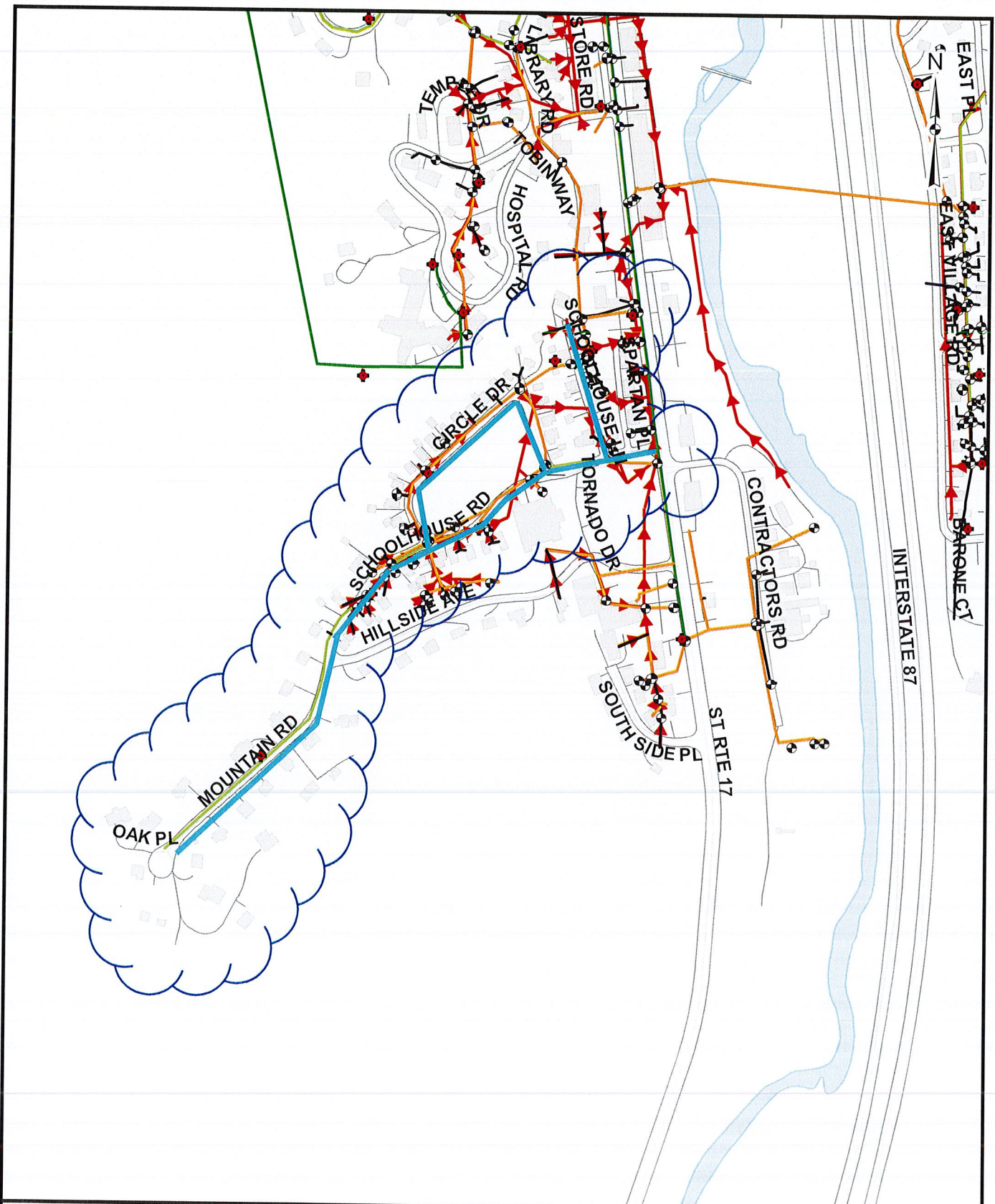
By: David McFadden

Title: Mayor

Date: 9/7/2022



<b>Water Distribution System</b> ♦ Water Hydrant ● System Valve □ Bend ] Cap ▽ Reducer ● Tap ○ Tee; Wye		<b>Water Pipe</b> — Unknown — < 6 Inch — 6 Inch — 8 Inch — 12 Inch — Hydrant Lateral Water Tank Proposed Water Main		<b>Sewer Features</b> ● Sewer Manhole → Force Main → Gravity → Outfall		<b>VILLAGE OF TUXEDO PARK, NEW YORK</b> <b>OPTION 1</b> <b>Schoolhouse Lane</b> <b>SCHOOLHOUSE LANE</b> <b>PROJECT AREA</b>		<b>UTILITIES</b> 90 SCALE IN FEET Date: 8/2/2022 	
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<b>Water Distribution System</b> + Water Hydrant ⚙ System Valve □ Bend ▤ Cap ▴ Reducer ● Tap ○ Tee; Wye		<b>Water Pipe</b> — Unknown — < 6 Inch — 6 Inch — 8 Inch — 12 Inch — Hydrant Lateral [Water Tank] Water Tank		— Proposed Water Main	<b>VILLAGE OF TUXEDO PARK, NEW YORK</b>  <b>UTILITIES</b> 390 SCALE IN FEET Date: 7/18/2022 <b>Weston &amp; Sampson</b>
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**OPTION 2**  
**Schoolhouse Lane**  
**Schoolhouse Road**  
**Circle Drive**

➔ Force Main  
 ⚡ Sewer