

WATER POLLUTION CONTROL AUTHORITY
Town of Trumbull
CONNECTICUT

TOWN HALL
(203) 452-5048



5866 MAIN STREET
TRUMBULL, CT 06611

**FEBRUARY 24, 2021
MINUTES**

Call to Order: The Chair called the meeting to order at 7:03 p.m.

Roll Call: The clerk called the roll and recorded it as follows:

Present: Richard Boggs, Chairman, Jon Greene, Vice-Chairman, (arrived at 7:13 p.m.), Frank Regnery, Andrew Palo.

Also

Present: William Maurer, Town Engineer/Sewer Administrator, Town Attorney James Nugent, Christine Kurtz of Wright Pierce and Scott Haynes of Arcadis.

Approval of Minutes: Moved by Palo, seconded by Regnery to approve January 27, 2021 meeting minutes as submitted. VOTE: Motion CARRIED unanimously.

Old Business:

- *Wright Pierce Finchwood Drive Area Report for Potential Sewers*

Ms. Kurtz reviewed the report with the commission. By way of background a town resident had inquired as to why there were not sewers in the northeast corner of town as other projects had ended very near this area. A question was raised on decisions of what would be or not sewered and logistics of what would sewers look like if they were extended to the area.

The memo included in the agenda packet outlines the history of Trumbull sewers.

- Trumbull does not have a treatment plant. All of the Trumbull's collection system goes to Bridgeport.
- The first area of sewers were in the southern part of town referred to as Reservoir Avenue pump station, this was driven by septic systems not performing well this was in the late 1960's. Studies were then done on what Trumbull could do with their wastewater, where it would go and how far the collection system would extend to. This outlined in the eight (8) areas at a low 1960's price. The Finchwood Drive area had not been one of the eight (8).

- The last project was finished in 2014-2015 and was one of the last projects planned. The commission is currently looking at Contract 5.
- Included in the memo is a map that shows where sewers are and where they are planned. Trumbull is 80% or planned to be sewer.
- They looked at the mapping, geographical subsurface and the grade to existing sewers and how many homes with one major pump station. Two options were developed.
- There is a potential for 78 homes in the area with gravity lines, one major pump station would be needed any additional homes would need an individual pump station and other homes would need individual pumps. There are conceptual cost estimates included in the report, survey work and borings work would need to be done for the project area.

Mr. Maurer shared his screen showing the map included in the report.

- The yellow highlighted area are the homes captured with traditional gravity design with one pump station and a force main pumping it over the hill to the collection system on Huntington Road.

The Chair indicated there were two (2) options.

1. Ms. Kurtz explained the pump station would pump only in one direction. The pump station is a low area in a wet area, any homes that couldn't get to the collection system by gravity would need to flow by gravity to the pump station there is a dotted line next to the red line that shows the force main that would bring it up, this would be in any of the other scenarios.
2. The other scenarios presented were if only Finchwood was sewer not trying to grab as many homes as possible.

The Chair indicated the other two options are less attractive looking at the numbers on a unit cost basis.

Ms. Kurtz stated there are a few homes not captured in this they would need an individual pump station to get to the sewers if they were included in any potential project.

- The costs represented in the report are the town project, the sewers in the streets, and the laterals up to the right-of-way line.
- Each homeowner would need to pay for anything in their homes that would need to be reconfigured as well as the pipe out to the street.

(Mr. Greene joined the meeting).

- The Chair ran the numbers and looking at everything on a unit per customer basis, the cost of the least expensive project is \$86,000 per customer. Ms. Kurtz stated the last project was \$30,000-\$40,000. Mr. Maurer indicated the Beardsley Parkway area were approximately \$20,000-\$30,000 some were slightly higher. The Chair indicated those were the assessments and the town picked up a portion of the project.
- Ms. Kurtz indicated the costs are the full amount. If the area is as wet as it appears on the mapping pilings may need to be in for the pipe, the soils may not be reused. Trumbull has ledge as well.

- Mr. Maurer indicated this is a concept level plan and the Chair added sub-surface investigation had not been done.
- The Chair confirmed he had taken the \$6,760,000 and divided it by 78 homes, which came out to \$86,667 per customer, and using the low-end number came to \$60,000.
- Ms. Kurtz indicated in the past the Town covered 25% of the project but there was storm in the project. Mr. Greene indicated he had never heard any other percentage, but on the other hand, he had never heard of an assessment at \$60,000. Many repairs can be done on a septic system for \$60,000.
- The Chair stated the report demonstrates why this area wasn't part of previous projects, and doing it as a standalone project brings it in on at a premium. Mr. Regnery indicated the cost of this area is cost prohibitive, people would not be happy with a \$60,000 assessment and some would have to pay more. An \$80,000 assessment could put a homeowner under water.
- The commission discussed the possibility of stimulus money in the future. Ms. Kurtz stated it would likely not cover this type of project, maybe town wide but not a small project. Attorney Nugent questioned if the commission were to move forward with Contract V if there would be funding available for that.
- Mr. Regnery indicated they would have to respond to the resident that this is prohibitively too expensive and wouldn't be considered any time in the near future unless there was funding from the state. The Chair indicated it probably wouldn't make sense to use that funding if it were available in this area.
- Mr. Greene questioned what action the commission needed take or what the state. Attorney Nugent stated there was nothing the commission needed to vote on, this was an exploratory estimate in response to a town resident's request for information.
- The Chair stated his inclination is to let the resident take it up with Mr. Maurer. The information is clear, all recognize it is a preliminary study that bears out what they suspected. No further action is necessary and all were in agreement this wasn't something to pursue.
- The commission indicated Mr. Maurer could express the sentiment of the commission and to share the information.
- The Chair believes every part of town had been considered. there was a form of triage taken which was driven buy need and cost.
- Ms. Kurtz noted there were a handful of side streets not included in this report, similarly to what had been decided in the past was decided here. The side street homes were excluded because it becomes cost prohibitive to drop sewer another 5' in the ground and digging trenches 20' deep, or adding cost to the project by putting individual pump stations on the properties. Decisions are made at the conceptual level to add the extra homes or not. The Chair stated the analysis was that multiple options were looked at. The 78 homes seems to be the best that could be done for this area and it is still very high in cost.
- 2021 CIP Capital Improvement Plan Bond Authorization Update

Mr. Maurer indicated they are in the approval process, they have been to the BOF and the Town Council Finance Committee, and next week they will go before the Town Council for final approval. There had been no changes to date.

- Old Town and Reservoir Avenue Pump Stations Update

Mr. Maurer reported the bid is in the Purchasing Department with an answer date of March 25, 2021 and expectations to start in April. The engineers' estimate is not made public with the bid. The bid should be on the website in the next few days.

- Beardsley Force Main Update:

Mr. Maurer indicated the agenda back up included a report inclusive of Arcadis's recommendations. Scott Haynes of Arcadis was present to review the report with commission.

Mr. Haynes shared his screen and reviewed for the commission the Arcadis report. The report introduces the break that happened and the repair that was done, which got them looking at other parts of the pipe. For this study they looked at this one section of the immediate area where the break occurred to make sure there is good pipe around it.

- First geotechnical investigations were done. This was done to get an idea of the validity of the renewing this piece of the pump station force main in various ways.
- Five borings were done, ranging from 20' to 50' below grade. They hit ledge at 22' and then drilled down 27'.
- Arcadis looked at four (4) alternatives for renewing the force main;
 1. Open Cut Pipe Replacement – This entails laying a new force main in the same alignments of where it exists now. The report contains more detail. The overall project cost estimate is \$2 million, including construction, engineering and contingencies at this planning level.
 2. Cured In Place Pipelining – CIPPL – Commonly done for gravity sewer lines 50+ years and more recently has been applied to force mains. This entails lining the existing pipe internally. The overall project cost is \$1.6 million, (\$400,000 less than the dig & replace), conversations took place with three (3) different cure-in-place contractors, two (2) were hesitant to work on it and one (1) spent a couple of hours on the phone with them. The cure-in-place pipelining company talked themselves and Arcadis out of this option. There will be a fair amount of tuberculation, (build up in an iron pipe, the iron oxidizes). The conditions that sewage presents causes the iron to eat away at itself. Hitting that with a chain could cause a hole or defect of the pipe. When they clean it they use a chain flail which is like a bike a chain and spin it around, the danger of doing that with a 50-year old pipe with known issues could compromise the pipe further and would result in replacing it anyway. The \$1.6 million could increase if they hit places where they can't line the pipe or if it is so encrusted that it chokes down and the liner would have to be reduced. There may be a dig & replace spot repair in certain places.
 3. Horizontal Directional Drill of a New Force Main – New alignments parallel to the existing force main. This is drilling through the earth, it has its place under busy intersections, or crossing of utilities, helps to avoid move or replacing the

utilities. Some of the drawbacks are deep pipe, sometimes 30' to 50". It's a good option for areas that are not environmentally sensitive,

4. Sliplining the Existing Force Main – Similar to cured in place except a smaller diameter pipe slides into the host pipe. This option was eliminated quickly because of the conditions at the pump station dictate smaller pipe would restrict the flow which is not a viable option even though it was the least costly.

A comparison of alternatives was done, as indicated in the report. The higher the score the better the option.

After rating the options:

- Open-Cut was the best option at 3.9
- Cure-In-Place at 3.5.

All things considered the Open-Cut was the best option. Cure-In-Place pricing is slightly more attractive but the \$400,000 difference could factor out to be a million dollars over that. Mr. Maurer agreed.

- Mr. Greene noted if there is a risk to go through the pipe with the CIPPL option the rating shouldn't be a 5 for environmental risks. The estimates may be optimistic for that option. Mr. Haynes noted that was a good point, those risks were not weighed in or priced. They would be bypassing, sewage wouldn't be in the pipe.
- The Chair spoke in favor of the table and comparisons, it is very helpful to understand the many aspects of this and be able to make a comparison. The reliability on the Open-Cut at 5.2 is significant. Working down to permitting and environmental risk – the Open-Cut is a 4 and would think that would have more of an impact because of the magnitude of the excavation and questioned why it is a 4. Mr. Haynes explained it is a 4 because they can control the environmental risk. It will be a controlled situation, erosion controls will be set up, dewatering through silt bags, and they don't run the risk of discharging sewage. They control more with regard to the river than the other technologies.
- Mr. Haynes indicated there isn't a significant difference in start to finish timelines on the two best options. Cure-In-Place would probably go a little faster, test pits would have to be dug at the beginning, middle and end. The lining would go faster than digging & replacing the entire 100' stretch. Mr. Maurer explained Cast-In-Place has only a limited number of contractors while Dig & Replace offers a bigger field of contractors to choose from. Mr. Haynes confirmed and added they would get bids that are more competitive with an Open-Cut. The sliplining pipe could be either regular PVC or HDPE. You don't lose much diameter with Cure-In-Place pipe liner, but the slipliner slides a pipe within the pipe, there are not 19" pipes, and would have to put an 18' or a 16' pipe in and would lose diameter with that option.

Once fully permitted the project schedule is anticipates as follows:

- Final Design – March – July
- Bid & Award – August- September

- Construction - September – December (Allowing for summer crowds at the park to subside)
- With 2-3 months of active construction.

The following is a summary of the commission's discussion on the outcome of the report.

- The 1,000' run would start at the beginning of the park. There is no crossing of the river. Mr. Maurer explained it is basically under the guardrail and follows the guardrail, walking path and the road. The whole section is in Bridgeport, all below Old Town Road. They will bypass the force main and then dig and replace in the same location, they will not have to worry about any alignment problems. No matter what they do they will have to under the guardrail.
- The pipe is 8' at spots in this area, some spots maybe a little less. The \$2 million does include the bypass.
- Mr. Maurer explained there isn't another spot to go, if they went down the middle of the road it would cripple the park, and need to be sensitive to the park that has to function. It is close to the river as it is. A lane will be maintained during excavation.
- Bridgeport Park Commission for approval is necessary. Mr. Maurer has been in contact with the Parks Superintendent as the testing and borings have been done. When the force main broke in 2020, the park was still being used.
- The commission discussed the possibility to reroute on the other side v. the side of the river. There is the potential of different soil conditions on the other side and there is always the unknown. Where the pipe is now is known conditions.
- The Chair noted it would be nice to have the construction done before the freeze/thaw and questioned if that was worth considering. Mr. Haynes stated contractors make money finishing jobs quickly, if they know they are going to get into winter delays and shutdowns, they will step it up and try to get out of there before Thanksgiving.
- The commission discussed the advantage of going through an open field even with the unknown. Mr. Maurer explained they hit a gas line with one of the test pit right next to the force main, the gas company didn't know it was there, because they didn't know it was there they assumed it was abandoned. No matter where you dig, you don't know what you will find. Mr. Haynes stated they can discuss where they would cross over the road to see if it makes more sense to go into the ball field that can still be flushed out.
- Other approval necessary are Bridgeport Inland Wetlands, (DEEP passes it on to local wetlands commission). It could make a difference getting further away from the river.
- The commission agreed Open-Cut & Replace is the more practical way to go. Mr. Maurer agreed and added it was more reliable for service and reliability.
- The commission discussed the engineer will research further on whether to go into the field or not and to consider minimizing permitting.
- Attorney Nugent suggested the commission vote on the selection.

The consensus of the commission was to move forward with the Open-Cut option based on the scope of the scores and the reliability. There is a price difference but there are many reasons why the additional expense is justified for the Open-Cut option. The commission agreed the risks are too high with the other option.

Mr. Maurer indicated the cast-in-place might require point repairs and have the potential of digging sections. The commission noted it is an unknown as to whether that would be one (1) or fifty (50). The Chair stated reliability of design, operation is very important, and those are clear benefits of the Open-Cut. Mr. Haynes indicated this option gives a 1000' sample of what the pipe looks like.

It was explained selecting this method for the 1000' section doesn't preclude the commission from choosing a different option for future sections. Mr. Haynes stated part of the force main might be fine, they think there will be isolated places that are similar in construction, they are low points, and bends in the pipe where deposits form and gasses released causing the pipe to deteriorate. Their hope is to find only a couple more sections that need replacement but not the entire pipe. Mr. Maurer indicated the road was done in 2014. Mr. Haynes indicated the road isn't as pristine now, but still looks good.

Moved by Palo, seconded by Regnery to accept the Open-Cut option for Phase I of the Beardsley Pump Station force main.

VOTE: Motion CARRIED unanimously.

Mr. Maurer indicated the funds are in the budget. Last month commission approved the funds to be put into the 83 account from Retained Earnings.

Any Other Business That May Come Before the Authority – None

Mr. Maurer confirmed \$1.6 million was put aside at last month's meeting, the engineering had been funded from the original \$400,000 allocated.

Adjournment: There being no further business to discuss and upon motion made by Regnery, seconded by Greene the Trumbull Water Pollution Control Authority adjourned by unanimous consent at 8:05 p.m.

Respectfully Submitted,



Margaret D. Mastroni, WPCA Clerk