WATER POLLUTION CONTROL AUTHORITY

# Town of Trumbull

CONNECTICUT

TOWN HALL
(203) 452-5048

5866 MAIN STREET
TRUMBULL, CT 06611

## MAY 27, 2020
## AGENDA

**NOTICE** is hereby given that the Water Pollution Control Authority of the Town of Trumbull, Connecticut will hold a meeting on Wednesday, May 27, 2020 at 7:00 p.m. via videoconference for the following purpose:

Join the meeting online:
https://zoom.us/j/99366046710?pwd=bVJobm1rQ1dUS0xVdTFpTjNLclJ1dz09

Webinar ID: 993 6604 6710 Password: 418274
Join by telephone: (301) 715-8592 / Webinar ID: 993 6604 6710

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1. Call to Order

2. Approval of Minutes:
   - April 22, 2020 meeting minutes

3. New Business:
   - Sewer Usage Bill Freeze
   - CPI Beardsley Pump Station Force Main Failure Report
   - COVID-19 Monitoring Email Discussion
   - Beardsley Pump Station Rehabilitation Kovacs Change-Order #2
   - Bridgeport WPCA Proposed FY 2020-2021 Budget
   - Quarterly Year-To-Budget Report

4. Old Business:
   - K&K Developers - Sewer Connection at 5085 Main Street, Parcel E11-170 (Formerly Stuart Place, Whalburn Avenue, and Stuart Place parcels)
   - 2020 Fiscal Year WPCA Budget Update
   - Beardsley Pump Station Rehabilitation Update
   - Old Town and Reservoir Avenue Pump Stations Update

5. Any Other Business That May Come Before the Authority

6. Adjournment

WATER POLLUTION CONTROL AUTHORITY

# Town of Trumbull

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**APRIL 22, 2020**
**MINUTES**

Call to Order: The Chair called the April 22, 2020 meeting to order at 7:05 p.m. and stated the meeting was being held by videoconference via Zoom.

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

Present: Chairman Richard Boggs, Charles Berezin, Jon Greene, Frank Regnery, Scott Thornton, Alternate, (Joined at 7:12 p.m.)

Absent: Andrew Palo

Also Present: William C. Maurer, P.E., L.S., Town Engineer/Sewer Administrator, Town Attorney James Nugent, (Joined at 7:07 p.m.)

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The Chair asked that each speaker to identify themselves every time they speak, and where appropriate, state their title (e.g., "WPCA Commissioner"), The Chair reminded those present only one person should speak at a time and all votes will be taken by roll call of seated members.

Approval of Minutes:
Moved by Greene, seconded by Regnery to approve the February 26, 2020 meeting minutes as submitted.

The clerk called the roll call vote and recorded it as follows:

| | Aye | Nay | Abstain |
|---|---|---|---|
| Richard Boggs | ☒ | ☐ | ☐ |
| Charles Berezin | ☒ | ☐ | ☐ |
| Jon Greene | ☒ | ☐ | ☐ |
| Frank Regnery | ☒ | ☐ | ☐ |

VOTE: Motion CARRIED unanimously.

New Business:

- Election of Officer – Secretary

  The Chair called for nominations. Hearing none, the Chair nominated Jon Greene as secretary of the WPCA. Mr. Greene accepted the nomination. The Chair called for other nominations, hearing none, the Chair called the vote.

  The clerk called the roll call vote and recorded it as follows:

| | Aye | Nay | Abstain |
|---|---|---|---|
| Richard Boggs | ☒ | ☐ | ☐ |
| Charles Berezin | ☒ | ☐ | ☐ |
| Jon Greene | ☒ | ☐ | ☐ |
| Frank Regnery | ☒ | ☐ | ☐ |

  VOTE: Motion CARRIED unanimously.

- K&K Developers - Sewer Connection at 5085 Main Street, Parcel E11-170 (Formerly Stuart Place, Whalburn Avenue, and Stuart Place parcels)

  (Commissioner Thornton joined the meeting at 7:12 p.m.)

  Mr. Maurer shared his screen with the Commission and viewers with the attached plans. He explained this is a development at the Westfield Mall where Whalburn Avenue and Stuart Place roads were. Apartments are being proposed where they will reuse the existing sanitary sewer system. The flow capacity of the lines is acceptable for this development.

  John Schmitz, Project Manager and Principal of BL Companies was present and indicated this would be a residential development on the Main Street side of the mall comprised on five (5) new buildings. There would be 260 units, a mix of 1 and 2-bedroom units.

  At peak the flow estimate is 290,000 gallons per day. The report from Wright Pierce shows plenty of capacity of the line as well as the line they are tying into at the ring road. They designed their project to work around the existing mains in Whalburn and Stuart and don't anticipate any improvements beyond their boundaries of their parcel.

  Mr. Schmitz explained the lines from the mall that tie into the 8" line are from Lord & Taylor, and another that combines Whalburgers and Chessecake Factory. There are separate lines for grease. They all tie together into manhole 1A-45 which is just south of the entrance where it hits the ring road, since this is a residential use the peak would be in the morning when the mall is closed. He tried to get flows for the mall but because of the health crisis they are closed now. Lord & Taylor would have limited flow since it's just a retail space. The overlap of flows would be in the evening, but based on capacity

it's not an issue. It was confirmed for the Commission the mains are existing from the previous use as residential streets and have been unaffected by this project. They are not touching any of the existing lines, including the other utility lines

Mr. Schmitz noted there is a community area with an outside swimming pool. The wastewater from the pool would discharge through the system, the cul-de-sac round about is in the middle of the plan and the pool is just southwest of that. They will go to DEEP for a pool wastewater discharge permit, not unlike the permit they have for LA Fitness. They will discharge off hours and has to be coordinated with the receiving plant in Bridgeport.

There are 260 proposed units, 65 of them are 1-bedroom and the remaining units are 2-bedroom, (195 units) plus a pool and a 4,000 sf clubhouse adjacent to the pool. There are no other structures proposed. They will be making an application with P&Z soon and would want to know that they have already been before this board for a recommendation. He was requesting a vote to approve the connection.

The Commission discussed whether this was noticed for a vote. Mr. Maurer explained this item on the agenda was for the connection and fee, but if it needs to be tabled to that is fine. Mr. Maurer explained the fee is $2,500 per the number of units. This is not a new assessment, the sewer lines have been there and had already been assessed previously, therefore would not need a public hearing. Mr. Maurer confirmed he had reviewed the report, there is sufficient capacity. They developer will be making new connections to the existing mains in what used to be a former town road. The mains are going to be reused and not rerouted.

Attorney Nugent confirmed for the Commission there was adequate notice to the public on the agenda for a vote on this item.

The 8" line is a typical size of pipe used in most streets, the upper limit is based on many things such as pitch and what is flowing in. This was reviewed by our consultants and is well within capacity. The mains from this development run from the mall to Sunnydale and Leighland, a gravity line to Bridgeport, (through the middle of the mall area between Main Street and Madison towards Bridgeport). Mr. Maurer confirmed the 8" line was sufficient for the flow.

Mr. Greene stated as a general practice he would prefer not to vote on an item when the materials had been sent out the same day as these plans had been. Mr. Schmitz indicated it would not be an issue to postpone but would like to be able to go to P&Z with an approval. The Chair indicated he agreed with Mr. Greene with regard to waiting to vote on this item noting Mr. Schmitz could leave the meeting with confidence this would be approved unless something is discovered upon review of the plans between now and the next WPCA meeting. Attorney Nugent indicated the P&Z public hearing will more than likely take more than one night given the size of this project, which is something to keep in mind when it comes to timing.

Moved by Greene, seconded by Regnery to Table this item.

The clerk called the roll call vote and recorded it as follows:

| | Aye | Nay | Abstain |
|---|---|---|---|
| Richard Boggs | ☒ | ☐ | ☐ |
| Charles Berezin | ☒ | ☐ | ☐ |
| Jon Greene | ☒ | ☐ | ☐ |
| Frank Regnery | ☒ | ☐ | ☐ |
| Scott Thornton | ☒ | ☐ | ☐ |

VOTE: Motion CARRIED unanimously.

Old Business:

- Eddie Road Extension – (2300 Reservoir Avenue)

  Mr. Maurer shared his screen and reviewed the plan with the Commission and viewers. There is development (apartments) at 2300 Reservoir Avenue. The Eddie Road extension of sewers is by an easement granted to us. The 2018 approval of the project's connections included a condition to increase the size of the main on Reservoir Avenue. What is being proposed at this meeting is in place of doing work in Reservoir Avenue is this extension up to Eddie Road.

  The Eddie Road area is on septic now, this would enable us to connect Eddie Road to the sanitary sewer system. There is a need to increase the size of the main but that is being done in conjunction of upgrading the pump station which is currently in design and will go out to bid soon. The developer paid for a portion of the pump station upgrade.

  The Chair noted that this has been discussed by the Commission previously and most are familiar. Mr. Maurer confirmed if this was to be done at a later date the cost of this would be more because they would have to disturb all of that is being done now including the landscaping. Mr. Maurer showed the commission where the manholes were on the plan.

  Moved by Greene, seconded by Berezin to approve the developer of 2300 Reservoir Ave to provide and install the sewer main extension within the sewer easement located at 2300 Reservoir Avenue, starting at SMH5 to SMH12, then to SMH13, as depicted on sheets U-1 and U-2 of the plan set entitled "Woodside" 2300 Reservoir Avenue and Rocky Hill Road, prepared by Spath-Bjorklund Associates, Inc., having the latest revision date of 4-1-20. This work is in lieu of upgrading the sewer main on Reservoir Avenue as previous approved by this commission. Approval is subject to the following conditions:

  1. Inspection by an independent Connecticut licensed P.E.
  2. Acceptable pressure testing results
  3. Video inspection of the completed installation
  4. Certified as-built plan and profile
  5. All other conditions of approval from the July 25, 2018 WPCA meeting.

The clerk called the roll call vote and recorded it as follows:

| | Aye | Nay | Abstain |
|---|---|---|---|
| Richard Boggs | ☒ | ☐ | ☐ |
| Charles Berezin | ☒ | ☐ | ☐ |
| Jon Greene | ☒ | ☐ | ☐ |
| Frank Regnery | ☒ | ☐ | ☐ |
| Scott Thornton | ☒ | ☐ | ☐ |

VOTE: Motion CARRIED unanimously.

- 2020 Fiscal Year WPCA Budget Update
  Mr. Maurer explained the BOF had met this evening and didn't know the outcome yet and will update the Commission next month.

- Beardsley Pump Station Rehabilitation Update
  Mr. Maurer reported the new pumps are operational and have had no issues. The two smaller pumps have been running while the two larger pumps only go on after a heavy rain storm. There have been no issues to date.

  They're still working on the interior fit-up. There is approximately a month of work to be done. They will start training on the generators and pump station in the next week. There are four (4) pumps, two (2) 50 hp motors which run on and off most of the time for normal flow, the two larger 380 hp only have to run at the very high peak. They have only kicked on once during a recent rain storm and have made sure the larger pumps don't over pressurize the line.

  A portion of the pipe from Beardsley Park has been sent out to be analyzed to see why it corroded as it did and are awaiting the results which are expected next week.

- Old Town and Reservoir Avenue Pump Stations Update
  Mr. Maurer reported there are a few more items in the design phase and are almost ready to go out bid with construction anticipated to begin late summer.

Any Other Business That May Come Before the Authority –

- The Impact of the Pandemic on Staff
  Mr. Maurer explained they have staff alternating days. One person checks the stations to make sure everything is running as it should and another person does the same on alternating days. This is so they don't work together. A new employees is starting May 1st to replace the maintainer that left us. We have been very fortunate that we have not had any major problems. The contractor has been working the project steadily and is on-going, this has not impacted construction either.

Adjournment

There being no further business to discuss and upon motion made by Boggs, seconded by Greene to adjourn, the clerk called the roll call vote and recorded it as follows:

| | Aye | Nay | Abstain |
|---|---|---|---|
| Richard Boggs | ☒ | ☐ | ☐ |
| Charles Berezin | ☒ | ☐ | ☐ |
| Jon Greene | ☒ | ☐ | ☐ |
| Frank Regnery | ☒ | ☐ | ☐ |
| Scott Thornton | ☒ | ☐ | ☐ |

The Trumbull Water Pollution Control Authority adjourned by unanimous consent at 7:51 p.m.

Respectfully Submitted,

Margaret D. Mastroni

Margaret D. Mastroni, WPCA Clerk

## SITE UTILITIES LEGEND

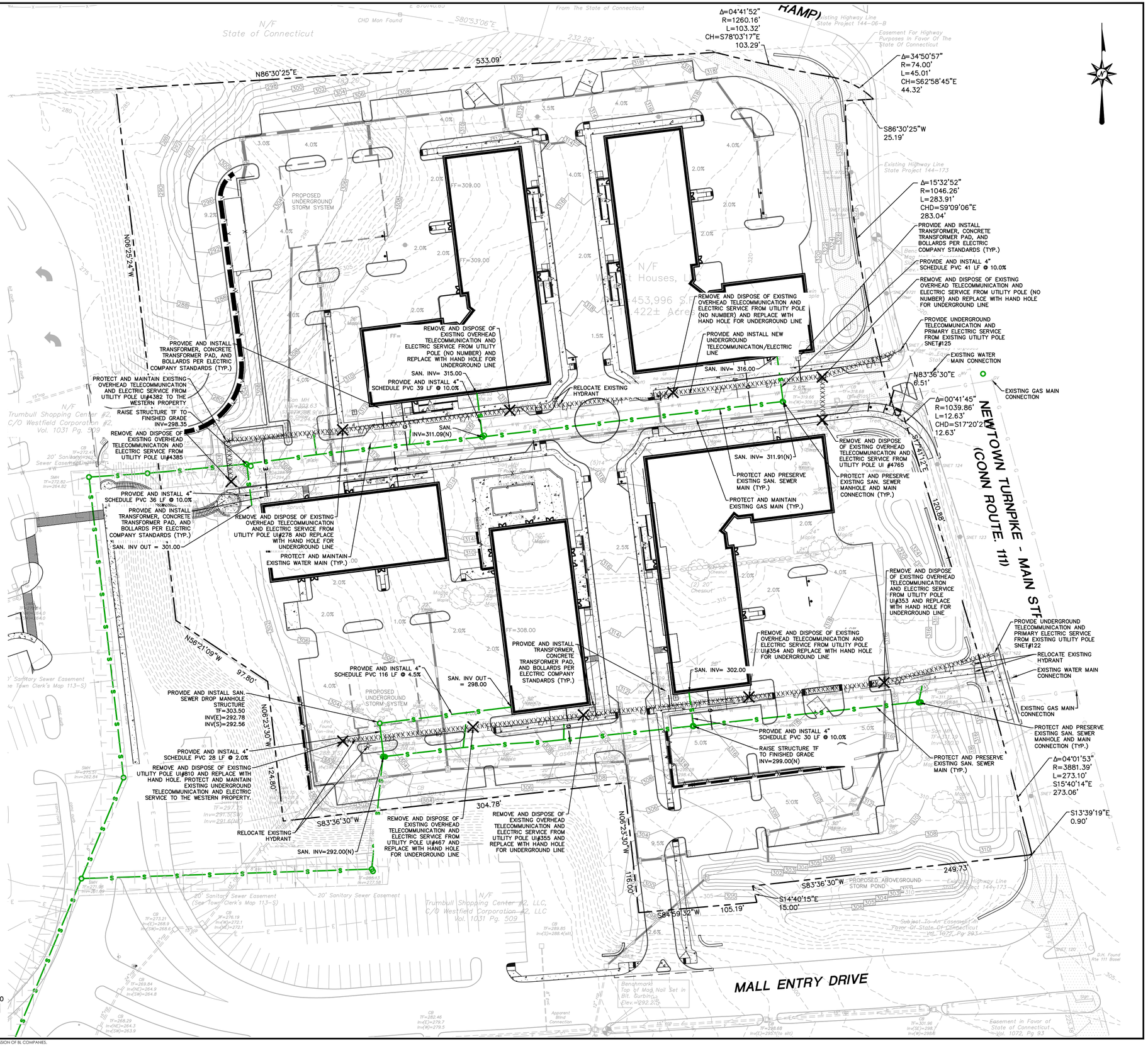
| | |
|---|---|
| PROPERTY LINE | |
| LIMIT OF DISTURBANCE LINE AND CONTRACT LIMIT LINE | LOD |
| ELECTRIC LINE | E E |
| ELECTRIC AND TELECOMMUNICATIONS LINES | E/T |
| GAS LINE | G G |
| WATER LINE | W W |
| SANITARY SEWER LINE | S |
| SANITARY SEWER FORCE MAIN | SFM |
| OVERHEAD LINE | OH OH |
| TRANSFORMER | T |
| HYDRANT | |
| UTILITY POLE | |
| SANITARY MANHOLE | |
| SANITARY CLEANOUT | CO |
| WATER VALVE | WV |
| GATE VALVE | GV |
| THRUST BLOCK | |
| GREASE TRAP | |
| OUTLET CONTROL STRUCTURE | |
| HYDRODYNAMIC SEPARATOR | |
| STORM LINE | |
| CATCH BASIN | |
| STORM MANHOLE | |
| FLARED END | |
| END WALL OR HEADWALL | |
| PROPOSED CONTOUR LINE | 228 |
| PROPOSED SPOT GRADE | X 100.00 |
| ABBREVIATIONS<br>– TC=TOP OF CURB<br>– BC=BOTTOM OF CURB<br>– TW=TOP OF WALL<br>– BW=BOTTOM OF WALL | X TC=100.00 BC=99.50<br>X TW=108.00 BW=100.00 |
| PROPOSED SURFACE SLOPE | 2% |

## NOTES

CONTRACTOR SHALL CONFIRM LOCATION, SIZE, CONDITION AND ELEVATION OF ALL UTILITY LATERAL STUBS, WATER MAINS, GAS MAINS AND ELECTRICAL SERVICES PRIOR TO CONSTRUCTION.

NOT FOR CONSTRUCTION
FOR PERMITTING PURPOSES ONLY

GRAPHIC SCALE
40 20 0 40
SCALE IN FEET

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Garden Homes

ROSE EQUITIES
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# PROPOSED RESIDENTIAL DEVELOPMENT
# GARDEN HOMES/ROSE EQUITIES
NEWTOWN TURNPIKE - MAIN STREET
(CONN ROUTE 111)
TRUMBULL, CONNECTICUT

REVISIONS

| No. | Date | Desc. |
|---|---|---|

| | |
|---|---|
| Designed | A.T.K. |
| Drawn | A.T.K. |
| Reviewed | |
| Scale | 1"=40' |
| Project No. | 1800513 |
| Date | 03/02/2020 |
| CAD File: SU180051301-COLOR | |

Title
**SITE UTILITIES PLAN**

Sheet No.
**SU-1**

Xref (s): BD180051301 ; XY180051301 ; XC180051301 ; XY05C133501 ; XY180051302 ; XC180051302 ; XC180051303

4/21/2020, JBERTACCIOCA, G:\JOBS\1800\G\180051\DWG\SU180051301-COLOR.DWG,SU-1 24X36.4DWG

CORROSION PROBE, INC.

THE COMPLETE ENGINEERING APPROACH – FROM DETECTION TO CORRECTION

# FORCE MAIN FAILURE INSPECTION REPORT

AT THE

# BEARDSLEY PUMP STATION

FOR THE

# TOWN OF TRUMBULL, CT

**Submitted to:**

**ARCADIS**
44 S. Broadway
White Plains, New York 10602

CPI Project Number: MPI070

May 6, 2020

CORPORATE HEADQUARTERS:
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MASSACHUSSETTS • NEW JERSEY • NORTH CAROLINA • OHIO • PENNSYLVANIA • TEXAS • WISCONSIN

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Appendix A – CTL Report

## 1.0 INTRODUCTION

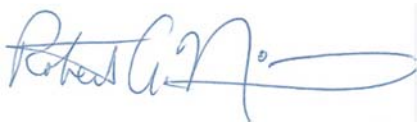
Corrosion Probe, Inc. (CPI) is pleased to provide this report for the failure analysis of a force main at the Beardsley Pump Station located in Trumbull, CT for Arcadis and the Town of Trumbull, CT. The field inspection was performed to examine the exterior and interior conditions of a section of removed pipe and perform discrete ultrasonic thickness (UT) testing.

The subject force main, at the location of the failure, is composed of 20-inch diameter ductile iron pipe. According to Arcadis, the average flow rate of the wastewater through this section of pipe is approximately 2 ft/s. This section of the force main was installed around 1970 with no historic trend of leaks. The subject failure occurred on January 23, 2020 along White Plains Road in Trumbull, CT. A section of force main, approximately 8 feet in length, was removed and stored onsite for later inspection. This section of removed pipe was inspected in the field by CPI and a sample was sent to our laboratory to asses potential failure mechanisms.

This report documents CPI's inspection findings, testing data, analysis, and conclusions. This document is respectfully submitted for your review, use, and consideration by,

**The Staff of Corrosion Probe, Inc.**

Bryce Annino
*Project Engineer*



Robert A. (Randy) Nixon
*Principal Consultant*
NACE Certified Protective Coating Specialist #70989
SSPC Protective Coatings Specialist #2019-117-310

## 2.0 INSPECTION FINDINGS

The site inspection took place on March 18, 2020, and was conducted by Mr. Bryce Annino with CPI. Personnel from Arcadis and the repair contractor were onsite during the inspection to assist as necessary.

The section of removed force main was labelled with cardinal directions, as well as direction of flow (Photograph No. 001) and clock positions. The clock positions will be utilized as longitudinal reference lines with 6 o'clock being the invert and 12 o'clock being at the crown of the pipe. The pipe was oriented so that the invert was on top for the inspection, and crown against the ground. The pipe was rotated so that the entire exterior could be inspection, but the majority of the inspection was performed on the lower (invert) portion of the pipe. The long-range longitudinal break was observed along the invert of the force main.

The majority of the exterior of the pipe appeared to be in generally good condition. The thin, black bituminous coating applied by the manufacturer was generally intact (Photograph No. 002) across the exterior surfaces of the pipe. A number of areas of corrosion pitting and material loss were observed near the invert of the pipe. A section, approximately 4"x7", on the southern end of the pipe section exhibited external corrosion losses (Photograph Nos. 003 & 004) up to 1/8" in depth from the manufactured surface. Typical pitting was also observed across this general area between 4 o'clock and 7 o'clock, which can be seen in Photograph No. 004. A lateral band of corrosion and material loss was observed at the northern end of the pipe section (Photograph No. 005). This band extended approximately from 5 o'clock to 7 o'clock with material loss approximately up to 3/16" in depth. Light mechanical damage was observed across the exterior of the pipe, presumably from excavation and removal.

The force main was originally cement mortar lined. The remaining lining on the removed pipe section was largely failed (Photograph No. 006). Where still present, the lining was not well adhered and large spalls were typical (Photograph Nos. 007 & 008). No lining was observed within 1" on either side of the fracture at the invert of the pipe. The lining was quite soft when tested with a 5-in-1 tool, and powdered at the touch.

The long-range fracture occurred along the invert of the force main. The separation in the break was observed to be typically over ¼" wide (Photograph No. 009) with smooth edges (Photograph No. 010). Significant material loss on the internal side of the pipe was observed within 1 ½" of either side of the break (Photograph No. 007). UT measurements were taken at the north end, as well as the south end of the pipe section. Results can be seen in **Table 1** below.

| TABLE 1: DI PIPING ULTRASONIC THICKNESS MEASUREMENTS (inches) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LOCATION | | | | | | | | MAX. | MIN. | AVE. | MIN./ AVE. |
| COMPONENT | END | 4:00 | 5:00 | 6:00 | 7:00 | 8:00 | 9:00 | | | | |
| DI Force Main | North | 0.302 | 0.304 | 0.098 | 0.323 | 0.289 | 0.296 | 0.323 | 0.098 | 0.269 | 36% |
| | South | 0.291 | 0.282 | 0.093 | 0.294 | 0.312 | 0.307 | 0.312 | 0.093 | 0.263 | 35% |

Table 1 – North and South End UT Measurements

The UT measurements above were taken within 12" of the cut ends of the pipe section. The 6 o'clock measurement on the north end was taken within ½" of the break, while the south end measurement was taken at the invert (the break does not extend all the way to the south end of the pipe section). Measurements were taken from the outside of the pipe which exhibited minimal corrosion losses.

A sample was cut from this pipe section and sent to Corrosion Testing Laboratories (CTL) for further analysis. The sample was taken approximately between 5 o'clock and 7 o'clock on the north end of the pipe section, extending approximately 14" into the length of the pipe (Photograph No. 011). CTL's report can be found in Appendix A, and discussion of their report can be found in the following sections.

## 3.0 LABORATORY ANALYSIS

A sample was cut from the invert of the subject pipe section in the field and sent to CTL for analysis. The sample was composed of two pieces – one from each side of the break.

Deposit and corrosion product buildup was present on the pipe, **Figure 2** (in the CTL report). Near the fracture face both the graphitic corrosion product and the deposit buildup had broken away. The fracture surface was thin walled due to general corrosion originating from the ID.

No evidence of an ID liner was observed. Due to the pervasiveness of ID corrosion, the nominal wall thickness of the pipe could not be ascertained. The thickest area measured was 0.36" away from the failure.

A cross section of the fracture face was prepared for metallurgical examination, **Figures 4 to 6** (in the CTL report). Both the ID and OD wall loss was from graphitic corrosion. The microstructure of the pipe consisted of pearlite in a matrix of ferrite.

In summary, the laboratory report from CTL indicates that failure originated from the inside of the pipe. Graphitic corrosion was observed on both the inside and outside of the pipe wall. The amount of graphitic corrosion on the inside of the pipe wall was considerably greater, and more consistent, than that observed on the exterior of the pipe. No cement mortar lining was present on the inside face of the sample. The lining, as observed in the field, was generally failed and not well adhered where it was still intact.

Graphitic corrosion is a mechanism of deterioration found in cast irons. Ductile iron is a form of cast iron. In ductile iron, the graphite forms nodules within the fine-particulate iron matrix which increases the ductility and impact and fatigue resistance of the metal compared to grey cast iron. Since graphite is cathodic to iron, both of which are components in the ductile iron matrix, the iron will be preferentially attacked and leached from the structure by an acidic environment. In this mechanism, the iron is leached from the wall of the pipe, leaving behind a weak and more brittle graphite matrix. When the iron is leached out of the pipe wall, the dimensions are not generally altered as the graphite remains in position, but is weakly bonded together by iron oxides and the wall structure is easily broken or penetrated in affected areas.

Microbiologically influenced corrosion (MIC) commonly occurs in wastewater applications in both aerobic and anaerobic conditions. While aerobic MIC is more common in applications where a headspace is allowed to form by wastewater pipes not flowing full, anaerobic MIC can also occur under certain conditions. Domestic septic sewage contains an ample supply of sulfate ions. Within slime layers that form in wastewater piping under low flow conditions, sulfate reducing bacteria (SRB) exist. This type of bacteria requires an anaerobic environment, and will not become active until the slime layers are sufficiently thick enough to prevent penetration by dissolved oxygen in the wastewater. Ultimately, the process of SRB metabolizing the available sulfates will form hydrogen sulfide and weak acids. Under-deposit corrosion occurs when wastewater biosolids build up in low areas of sewer pipelines including force mains which flow at low velocity. In these cases, acidic conditions promote acidic dissolution of cement mortar linings and active graphitic corrosion of ductile iron pipe. Invert failures in fore mains are typically caused either by erosive conditions or by acidic attack associated with septic under-deposit corrosion. All evidence in this subject force main failure points to acidic attack of the mortar lining and later the ductile iron pipe. Once the wall thickness was sufficiently weakened, the pipe wall fractured as the pipe could no longer resist internal and /or external pressure.

## 4.0 CONCLUSIONS & RECOMMENDATIONS

Based upon the field inspection and laboratory analysis performed by CTL, the failure associated with the Beardsley Pump Station Force Main was caused by graphitic corrosion of the ductile iron pipe. The acidic environment at the invert of the pipe was the likely result of a build-up of biosolids and under-deposit corrosion associated with sulfate reducing bacteria (SRB). Once the pipe wall was no longer strong enough to resist the operating pressures of the force main, the pipe fractured.

This section of pipe is at a low point, or belly, in the line. The slow flow rate, 2ft/s, likely caused the deposition of biosolids at the invert of the pipe. The buildup of biosolids turned septic, creating an acidic environment against the invert of the pipe through the action of the SRB. The CTL report indicates that the pH of the inside face of the pipe sample was around 5.82; a pH of around 9.5 is required for ductile iron to begin corroding. And the wastewater pH is near neutral itself.

Similar low elevation locations along the force main are likely subject to the same mechanism of deterioration. Low points with slow moving wastewater are potentially in similar condition to this section of pipe. A desktop review of the pipeline's hydraulic profile should be conducted to identify areas of concern.

If it is possible to take the force main out of service for some reasonable amount of time, CPI would recommend performing CCTV services. This is an invasive procedure which would require sufficient cleaning of the lines, but would allow for visual observations of the internal force main conditions at low areas. It may also be possible to perform test pit inspections at areas of concern, assuming that the invert of the pipe can be exposed. Test pit inspections are less intrusive to pump station operation and can be performed while the force main is in service, though the amount of information acquired from such inspections may be more limited. The potential for a break to occur during test pit activities may also be greater than that posed by a CCTV inspection as the pipe would need to be fully exposed, removing any supportive pressures which the surrounding earth would have been providing. Another option to consider might be to use digital profile radiography to detect significant corrosion losses in the pipe's invert. This would also require exposing the pipe for 180 degrees of its outside circumference.

## 4.0 PHOTOGRAPHS

Photograph No. 001 – Overview of force main section with general labelling

Photograph No. 002 – Overview of bottom of pipe surface. New pipe seen on right side of photo

Photograph No. 003 – Large area of material loss on south end of pipe. Pitting visible on right side of tape measure.

Photograph No. 004 – Large area of material loss on south end of pipe section with visible pitting

Photograph No. 005 – Lateral band of corrosion at north end of pipe section

Photograph No. 006 – Overview of internal condition of pipe section

Photograph No. 007 – Internal view of the pipe section at the north end, invert of pipe

Photograph No. 008 – Internal view of the pipe section at the north end, crown of pipe

Photograph No. 009 – Typical width of break at invert

Photograph No. 010 – Smooth edges of break

Photograph No. 011 – Sample for laboratory analysis marked and labelled

# Corrosion Testing Laboratories, Inc.

## Analysis of Fractured Ductile Iron Waste Water Main from Trumbull CT

*Prepared for Kevin Krawiec of Corrosion Probe, Inc.*
*CTL REF NO: 37118; CPI REF NO: MPI070*
*April 26, 2020*

## Samples Provided

Two sections of fractured ductile iron waste water pipe were supplied to CTL for analysis, **Figure 1**. The sections provided were of opposite ends of a longitudinal crack at the bottom of the pipe.

## Methods of Analysis

Metallurgical Analysis

- The sample surfaces were examined macroscopically as well as using stereo optical microscopes at up to 144X magnification.
- Cross-sectional mounts were prepared for microscopic examination of the various features, including through the fracture surface and corrosion of the threads.

Deposit Analysis[1]

- The elemental composition of deposits was determined via energy dispersive x-ray spectroscopy (EDS) performed in the scanning electron microscope (SEM).
- Deposits for water-soluble anions often associated with corrosion. An extract was collected by grinding deposits and boiling them in deionized water. The extract was then analyzed via ion chromatography (IC) for chloride, sulfate, fluoride, and others. The pH of the solution was also measured.

## Analysis Findings

Deposit and corrosion product buildup was present on the pipe, **Figure 2**. Near the fracture face both the graphitic corrosion product and the deposit buildup had broken away. The fracture surface was thin walled due to general corrosion originating from the ID.

A circumferential band of OD corrosion was present on the sample. A section of missing metal was present in line with the circumferential band. The deepest OD corrosion was measured at 100 Mils.

[1] Both techniques are to be considered semi-quantitative. Technique can influence concentrations of detected species (e.g., water concentration in extraction, method of extraction preparation, location of analysis), and, therefore, these results should be used to gain a general understanding of deposit composition while respecting limitations.

No evidence of an ID liner was observed. Due to the pervasiveness of ID corrosion, the nominal wall thickness of the pipe could not be ascertained. The thickest area measured was 0.36" away from the failure.

A cross section of the fracture face was prepared for metallurgical examination, **Figures 4 to 6**. Both the ID and OD wall loss was from graphitic corrosion. The microstructure of the pipe consisted of pearlite in a matrix of ferrite.

The EDS and IC results indicate that the environment in the inside of this line is sulfate and formate rich and acidic. Smaller amounts of acetate and chloride ions were present as well. The IC results are summarized in **Table 1**, and representative EDS spectra are shown in **Figure 7**.

**Table 1. IC Results***

| pH | Chloride | Sulfate | Acetate | Formate | Phosphate |
|---|---|---|---|---|---|
| 5.82 | 135 | 3217 | 254 | 1096 | 92 |

*Anions present in concentrations <50 ppm were not reported.

We appreciate the opportunity to assist you in this investigation. If you have any questions or comments, please do not hesitate to contact us.

Respectfully submitted by,

Corrosion Testing Laboratories, Inc.

Principal Investigator:

Lewis Krantz
Metallurgical Technician

Reviewed and approved by:

Dan Pugh
Director of Laboratory Services

**Policy Statement**
This study was performed and this report was prepared based upon specific samples and/or information provided to Corrosion Testing Laboratories, Inc. (CTL) by Corrosion Probe, Inc.. The information contained in this report represents only the materials tested or evaluated. Such work was performed in accordance with CTL's Quality Assurance Manual, Revision 13, issued 22 June 2009. The conclusions and opinions provided were developed within a reasonable degree of scientific certainty and are based upon materials and information provided to date. Should additional information become available (e.g., on further continued review of the material received or submission of additional samples for examination), we reserve the right to adjust our professional opinions.

CTL assumes no responsibility for variations in sample or data quality (composition, appearance, performance, etc.) or any other feature of similar subject matter produced (measured, manufactured, fabricated, etc.) by persons or under conditions over which we have no control. This report may not be altered, added to or subtracted from and, if this does occur, CTL does not accept responsibility for such alterations, additions, or deletions. This report shall not be reproduced, except in full, without the written approval of CTL. All material that was received by CTL will be discarded six (6) months after this report has been issued, unless other arrangements have been agreed upon. All liquid, soil and gaseous samples that are received by CTL shall not be stored for more than thirty (30) days and shall be disposed of in accordance with applicable rules and regulations.

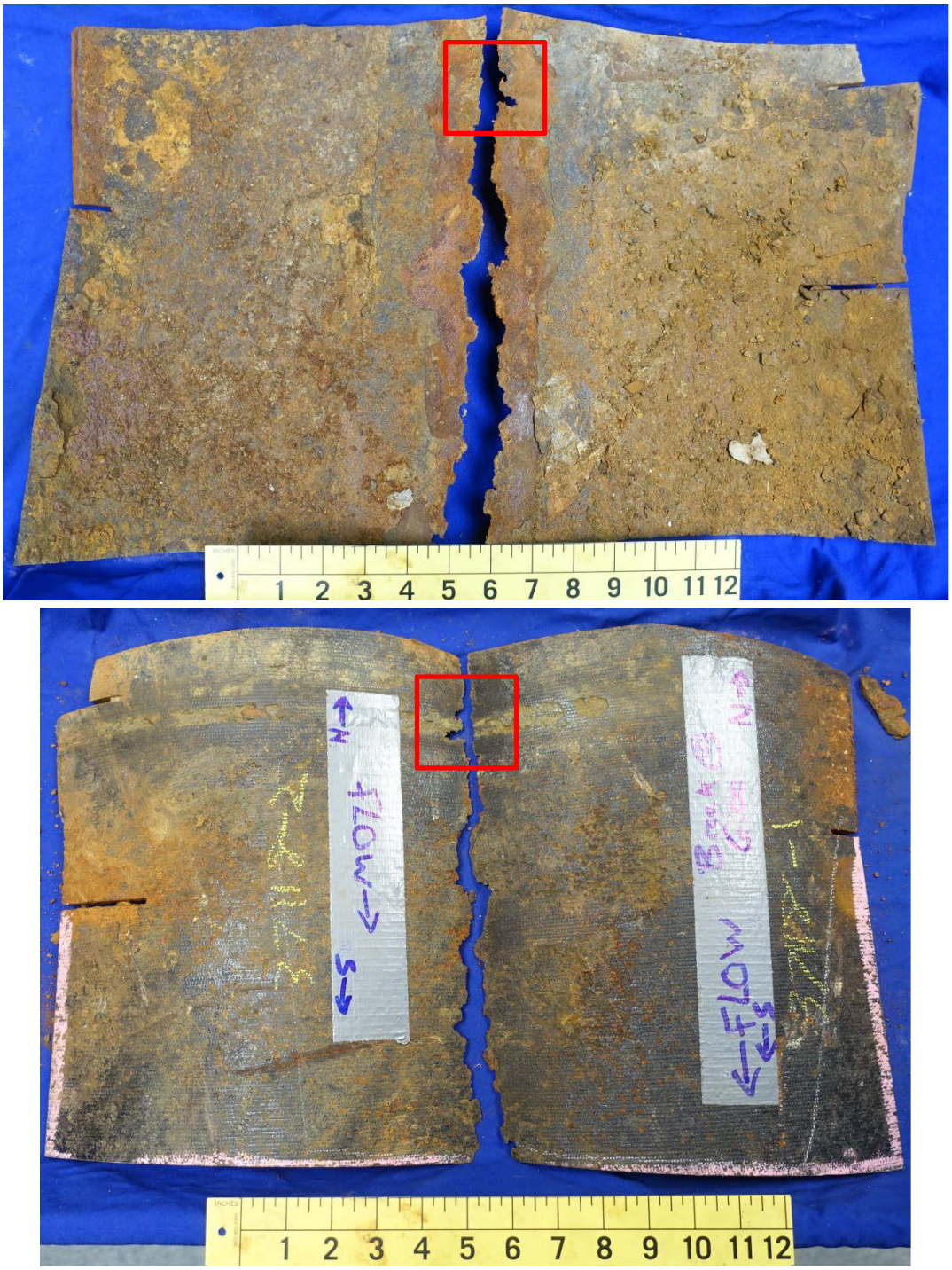



**Figure 1.** Samples as received. The red box indicates areas of missing metal (through wall corrosion as opposed to fracture).

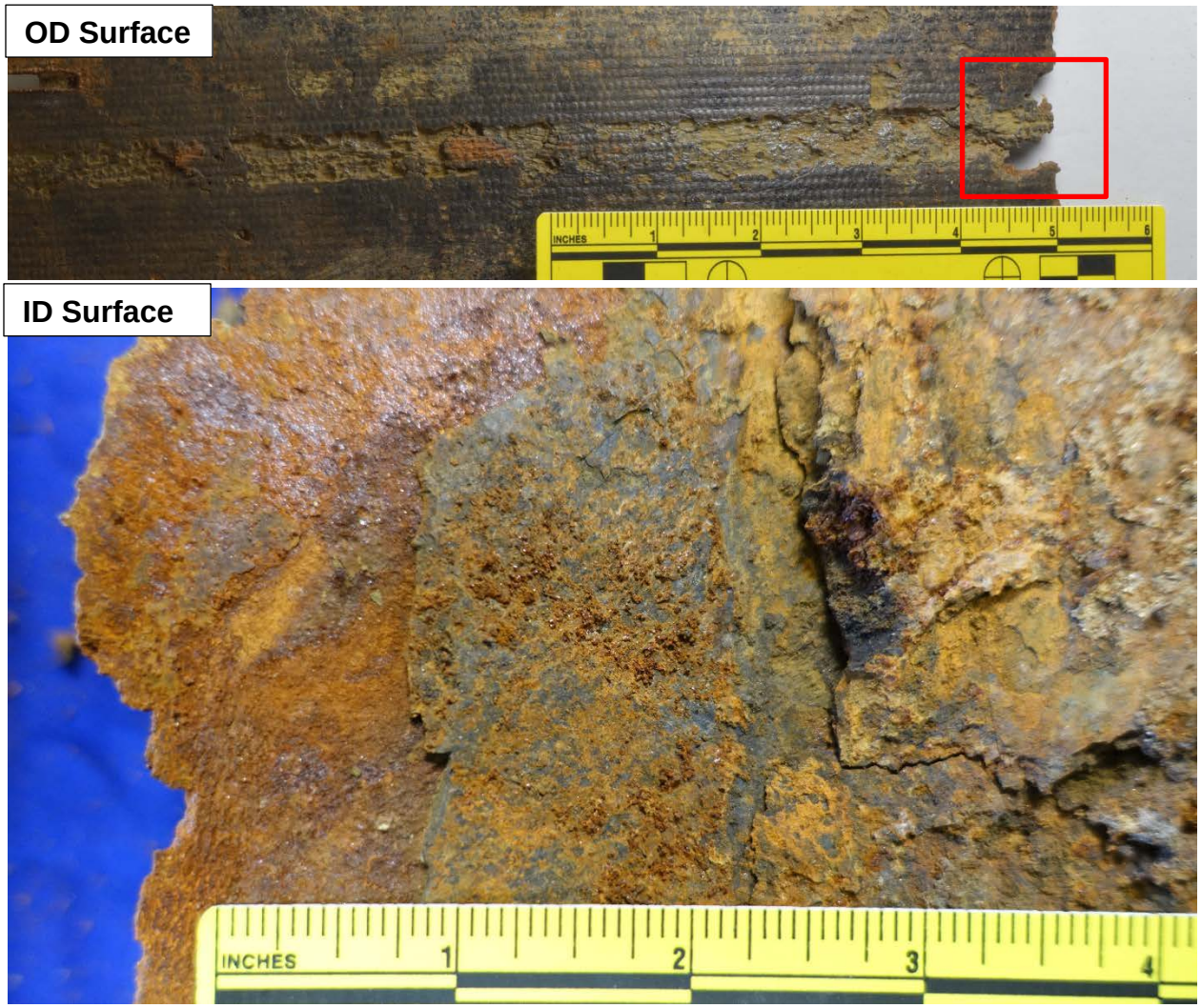



**Figure 2.** ID and OD surfaces. OD surface and a circumferential band of graphitic corrosion. ID deposits and corrosion product had fallen off near the fracture face.

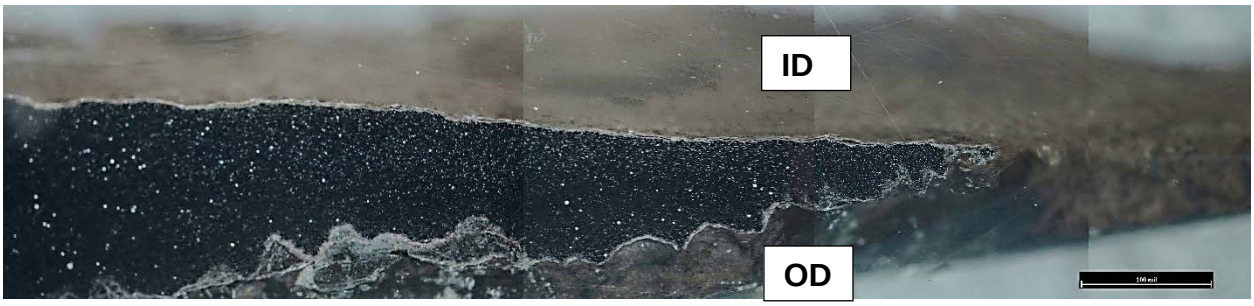



**Figure 3.** Smooth general ID corrosion and rough OD corrosion at the circumferential band.

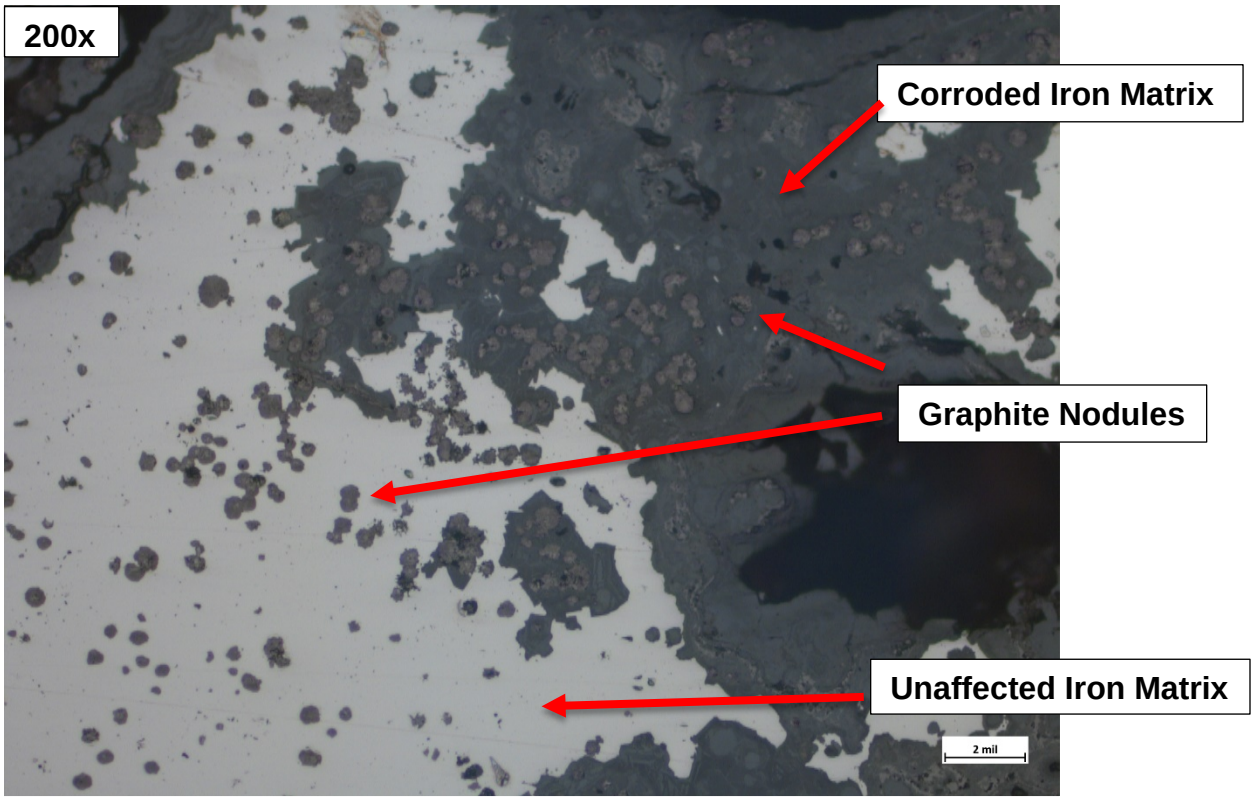



**Figure 4.** Graphitic corrosion on the ID.

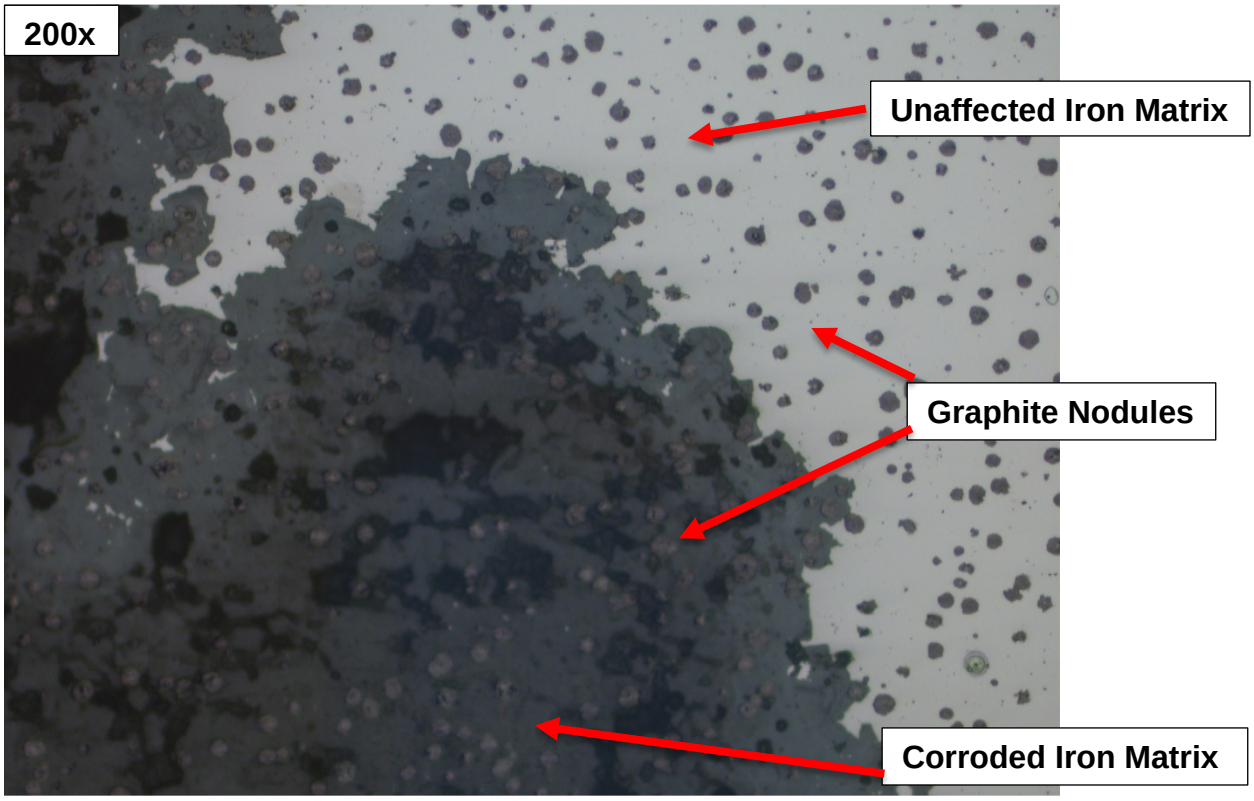



**Figure 5.** Graphitic corrosion on the OD.

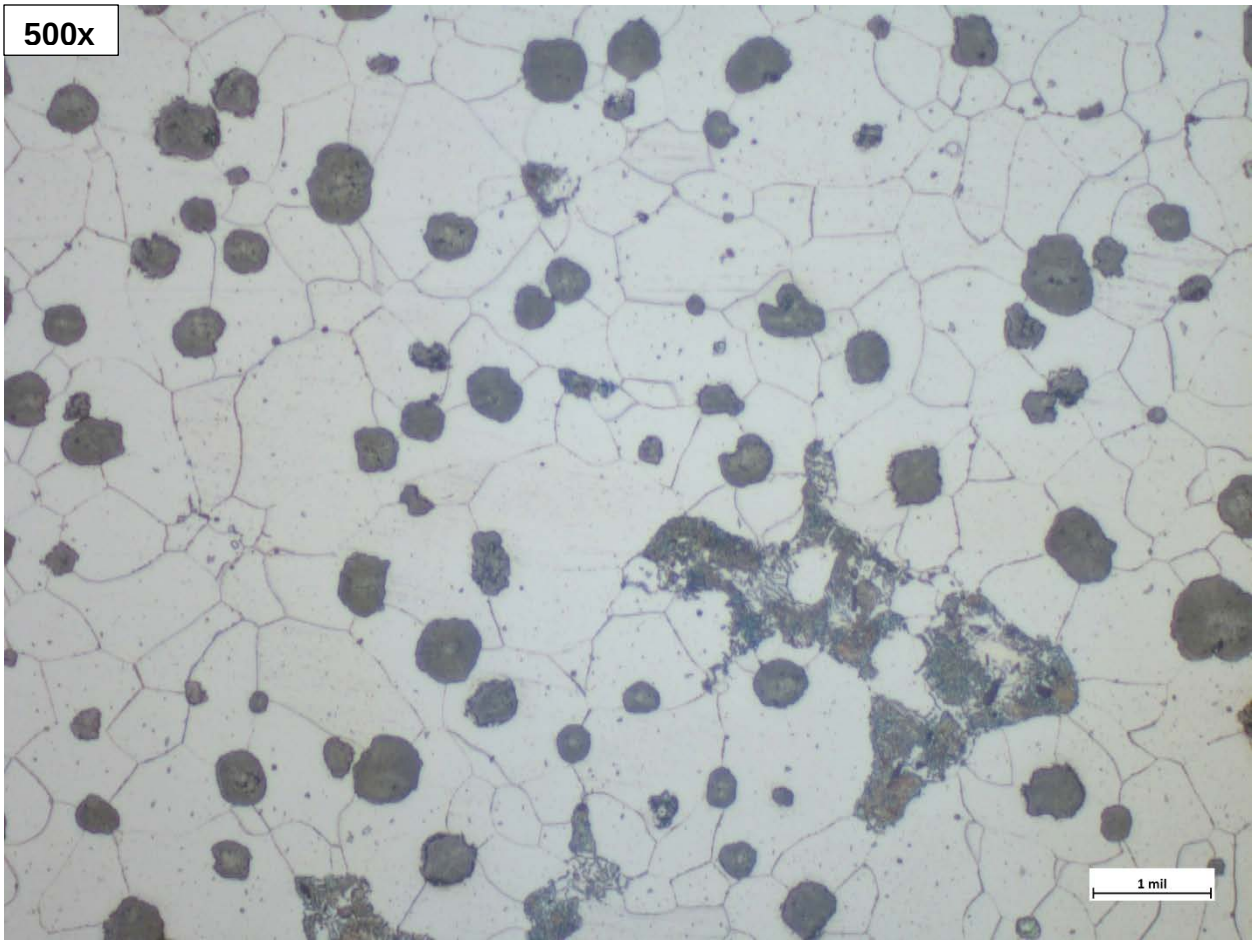
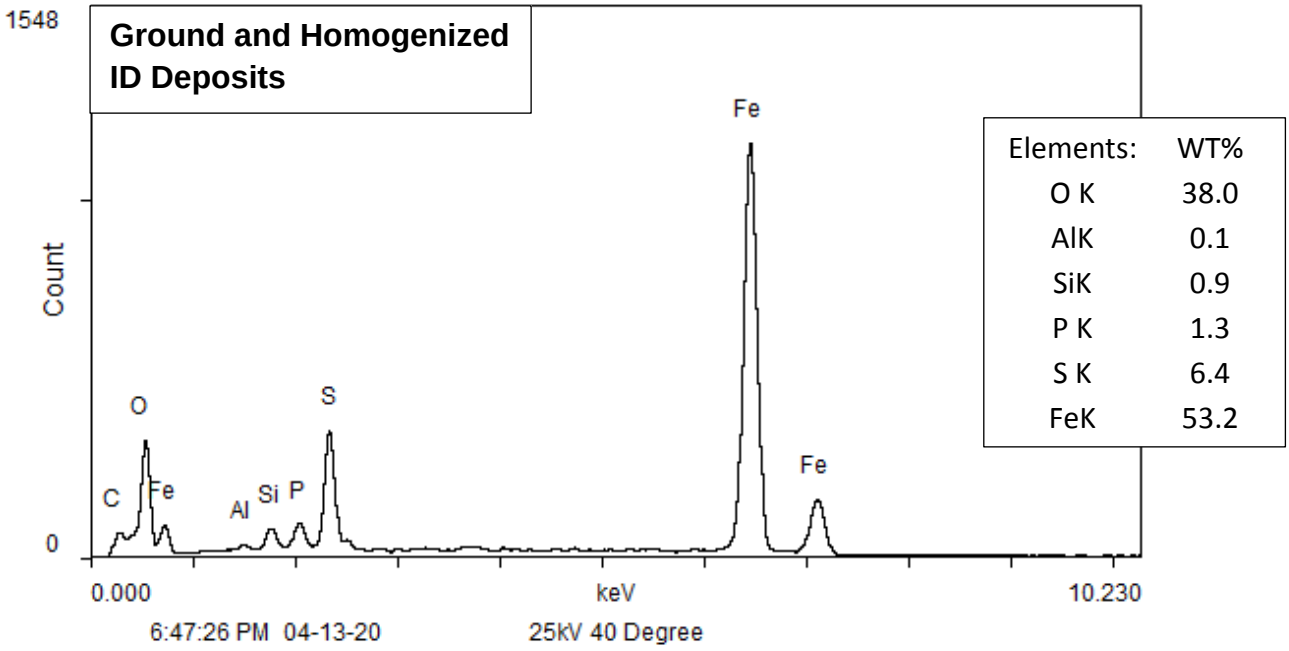



**Figure 6**. Microstructure of pipe etched with 3% Nital.



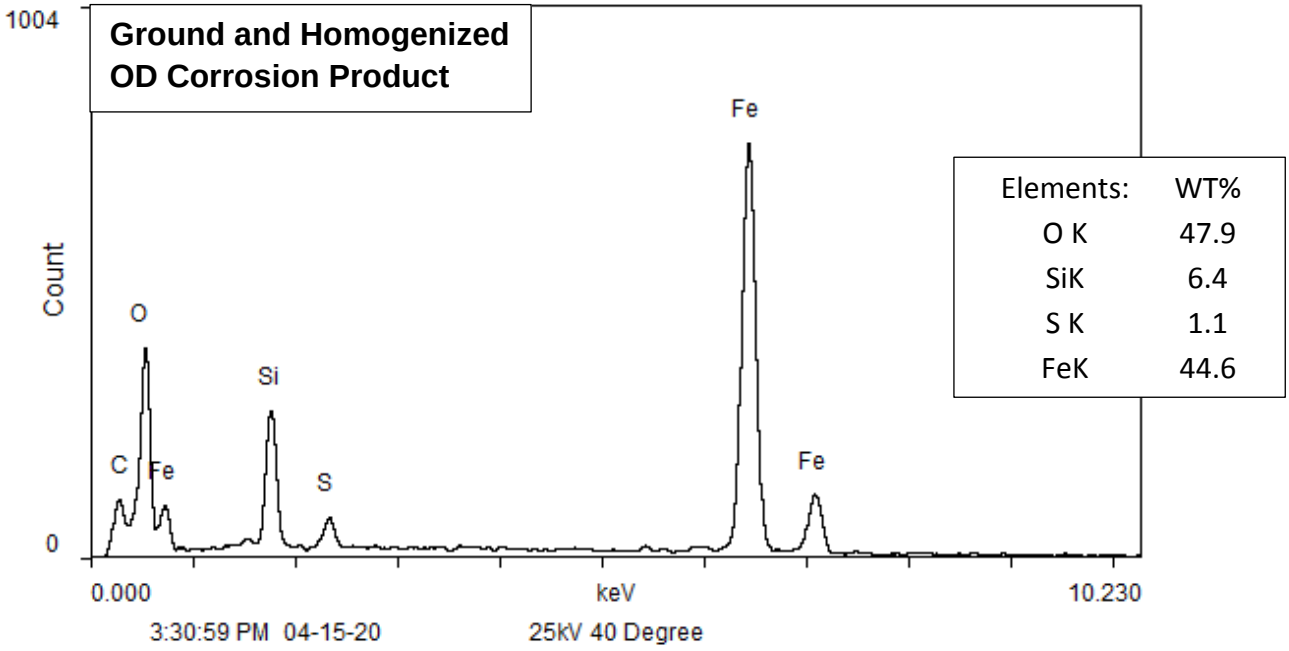




**Figure 7**. Representative EDS Spectra.

| | |
|---|---|
| **From:** | Richard Boggs |
| **To:** | Andrew Palo; rcboggs@charter.net |
| **Cc:** | Margaret Mastroni; Cberezin@aol.com; charles.r.berezin@lmco.com; Frank.Regnery@fticonsulting.com; jongreene@yahoo.com; Scottthorntonmd@yahoo.com; William Maurer; jmn@quidproquo.com; jon@network-1.com |
| **Subject:** | RE: [External] Agenda Item |
| **Date:** | Wednesday, May 13, 2020 11:53:51 AM |

Andy

I appreciate your intent here and have no problem adding this to the agenda for consideration, but am struggling a bit with the idea of the WPCA funding the conveyance of what is primarily discretionary water usage on the basis of hardship. The difference between consumption during the period from Jan-March and April-June is mostly exterior use, for lawn irrigation, plant watering, car washing and the like. Any resident having financial difficulties can easily curtail these kinds of things to save money if necessary. It would be interesting to see if we can get the data comparing residential water use from April 2019 and April 2020 to see the impact all the people working from home has had, but that may be a tall order. Assuming most Trumbull residents work elsewhere, it may be sufficient to just look at total water usage, hopefully with the Trumbull Mall broken out from these totals. If the difference between April water use in 2019 and 2020 is significant, that would suggest that the COVID-19 impact should be considered in addition to the usual seasonal variations, and your case is stronger.

That said, we can certainly consider allowing residents to defer payment of WPCA bills without penalty, as the town has already done with property tax bills, as long as our cash position will allow this. Hopefully we can get enough information prior to our meeting to make an assessment of the most appropriate course. Bill, can you help with this?

Regards,
Rick

Richard Boggs, PE, SECB, LEED AP
Senior Project Manager
Fuss & O'Neill, Inc. | 56 Quarry Road | Trumbull, CT 06611
203.374.3748 x5502 | rboggs@fando.com | cell: 203.450.0499
www.fando.com | twitter | facebook | linkedin

**From:** Andrew Palo [mailto:dobler000@aol.com]
**Sent:** Tuesday, May 12, 2020 10:45 PM
**To:** Richard Boggs <RBoggs@fando.com>; rcboggs@charter.net
**Cc:** mmastroni@trumbull-ct.gov; Cberezin@aol.com; charles.r.berezin@lmco.com; Frank.Regnery@fticonsulting.com; jongreene@yahoo.com; Scottthorntonmd@yahoo.com; wmaurer@trumbull-ct.gov; jmn@quidproquo.com; jon@network-1.com
**Subject:** [External] Agenda Item

Richard,

First off, I hope you and everyone on this distribution are doing well. I'd like to ask if you could include the following as a discussion item on our next agenda. I recently received my WPCA bill which covers the period of April, May & June. This bill is derived from water readings from 1/1/20 through 3/31/20. In light of the financial difficulties so many of our residents face during these unprecedented times and heading into heavier water usage months (especially with so many people staying home), I was wondering if we could freeze the amount due from this bill and apply it to the next bill that will go out. So, the bill that would cover the months of July, August & September, calculated from water readings from 4/1/20 through 6/30/20, would be the same as the bill we just received.

The questions that come to my mind are whether we can do this logistically and financially. Can the company who sends out our bills handle such a request? Can we as a Commission afford what I believe would be a reduction of revenues for one period? I'd like to eventually request that someone ask the Director of Finance how much revenue historically we've generated from these two billings. I'd like to get a handle as to how much revenue, if any, we'd be losing. Ideally, if it could be broken out by commercial versus residential, that would be fantastic but I don't even know if we are able to generate this information at all.

As you well know, in the past, the Town used to try to adjust for water usage that impacts just the sewer system via a complex formula. I'd like to see our Commission help our residents financially, if possible, for this one period as we used to do in the past with that formula. Back then the Town kicked in the difference between what we actually were billed and what the WPCA charged. I am hoping to accomplish this by not getting the Town involved and seeing if we, as a Commission, can afford this financially. I really think it's the right thing to do during this difficult time for so many.

Lastly, I'd like to ask that this email be included in our next packet for discussion purposes if the item is added to the agenda.

Thanks,

Andy Palo

**From:** James Nugent
**To:** jon@network-1.com
**Cc:** Richard Boggs; Margaret Mastroni; Andrew Palo; Cberezin@aol.com; charles.r.berezin@lmco.com; Frank.Regnery@fticonsulting.com; jongreene@yahoo.com; rcboggs@charter.net; Scottthorntonmd@yahoo.com; William Maurer
**Subject:** Re: [External] Sewers: The Signature of Our Community
**Date:** Wednesday, May 6, 2020 11:23:46 AM

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Emails to a quorum of the commission are discoverable under FOI and this constitutes a meeting. We will have to include these as part of the minutes at the next meeting in order to comply with FOI rules

Sent from my iPad

On May 6, 2020, at 12:29 AM, "jon@network-1.com" <jon@network-1.com> wrote:

> In order to be useful that approach would have to be done in every sewered community and tied to extensive testing and contact tracking by health experts. Therefore, it would have to be a state initiative in conjunction with local health departments. i think our role, or really the sewer administrator's role with at most our approval (and, frankly, I'm not even sure that's required), would be to facilitate the testing by whoever the state would designate. Does anyone know if there is such an initiative?
>
> Jon
>
> P.S. Question for Attorney Nugent: Does email discussion among the entire body stray into potential open meeting law conflicts? At a minimum I presume the emails are FOIA discoverable and I don't think anyone would have a problem with that (I wouldn't say anything in email that I wouldn't say in public), but I want to understand if there are boundaries we should not cross.
>
> ------- Original Message --------
>
> > Subject: RE: [External] Sewers: The Signature of Our Community
> > From: Richard Boggs <RBoggs@fando.com>
> > Date: Tue, May 05, 2020 5:54 pm
> > To: Margaret Mastroni <mmastroni@trumbull-ct.gov>, Andrew Palo <dobler000@aol.com>, "Charles Berezin (Cberezin@aol.com)" <Cberezin@aol.com>, "charles.r.berezin (charles.r.berezin@lmco.com)" <charles.r.berezin@lmco.com>, "Frank Regnery-WPCA (Frank.Regnery@fticonsulting.com)" <Frank.Regnery@fticonsulting.com>, "Jon Greene (jon@network-1.com)" <jon@network-1.com>, "jongreene@yahoo.com" <jongreene@yahoo.com>, "Richard Boggs (rcboggs@charter.net)" <rcboggs@charter.net>, "Scott Thornton (Scottthorntonmd@yahoo.com)" <Scottthorntonmd@yahoo.com>
> > Cc: James Nugent <jmn@quidproquo.com>, William Maurer <wmaurer@trumbull-ct.gov>
> >
> > A friend of mine shared this earlier today, and I thought you'd all find it interesting. Does COVID-19 monitoring fall within our area of responsibility?
> >
> > https://www.nytimes.com/2020/05/01/science/coronavirus-sewage-monitoring-lockdown.html?algo=identity&fellback=false&imp_id=420879518&imp_id=893021054&action=click&module=Science%20%20Technology&pgtype=Homepage
> >
> > Cheers,
> > Rick
> >
> > Richard Boggs, PE, SECB, LEED AP
> > Senior Project Manager
> > Fuss & O'Neill, Inc. | 56 Quarry Road | Trumbull, CT 06611
> > 203.374.3748 x5502 | rboggs@fando.com | cell: 203.450.0499
> > www.fando.com | twitter | facebook | linkedin
> >
> > **From:** Margaret Mastroni [mailto:mmastroni@trumbull-ct.gov]
> > **Sent:** Wednesday, April 29, 2020 2:21 PM
> > **To:** Andrew Palo <dobler000@aol.com>; Charles Berezin (Cberezin@aol.com) <Cberezin@aol.com>; charles.r.berezin (charles.r.berezin@lmco.com) <charles.r.berezin@lmco.com>; Frank Regnery-WPCA (Frank.Regnery@fticonsulting.com) <Frank.Regnery@fticonsulting.com>; Jon Greene (jon@network-1.com) <jon@network-1.com>; jongreene@yahoo.com; Richard Boggs <RBoggs@fando.com>; Richard Boggs (rcboggs@charter.net) <rcboggs@charter.net>; Scott Thornton (Scottthorntonmd@yahoo.com) <Scottthorntonmd@yahoo.com>
> > **Subject:** [External] 04-22-2020 WPCA minutes
> >
> > Good Afternoon Commissioners,
> >
> > Attached are the 04-22-2020 WPCA minutes.
> >
> > Have a nice afternoon,
> >
> > Margaret Mastroni

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

**Change Order No.** 2

| | | | |
|---|---|---|---|
| Date of Issuance: | 4/2/2020 | Effective Date: | 4/2/2020 |
| Owner: | Town of Trumbull | Owner's Contract No.: | 6297 |
| Contractor: | Kovacs Construction Corporation | Contractor's Project No.: | F-2820 |
| Engineer: | Arcadis U.S., Inc. | Engineer's Project No.: | 06532002.0000 |
| Project: | Beardsley Pump Station Comprehensive Upgrade | Contract Name: | |

The Contract is modified as follows upon execution of this Change Order:

CO-2 Item 1 Description: Modify the configuration of the new CMU wall along the dry well stairs, resulting in less CMU required and a deduct of approximately 94sq ft of 8" CMU block.
*Credit: ($1,797.60)*

CO-2 Item 2 Description: Furnish and install a concrete equipment pad for the main switch and CT cabinet which was modified to be a combo unit to eliminate additional wall mounted electrical equipment.
*Cost: $3,798.33*

CO-2 Item 3 Description: Furnish and install a new door for Door 108-1 to accommodate actual field conditions. *Cost: $1,527.91*

CO-2 Item 4 Description: Materials, equipment, and labor for emergency force main repair in the Beardsley Park on January 23, 2020.
*Cost: $20,064.54*

CO-2 Item 5 Description: Cost for replenishing parts borrowed during the emergency force main repair in the Beardsley Park on January 23, 2020 and provision of additional spares at the Town's request.
*Cost: $17,912.78*

CO-2 Item 6 Description: Furnish additional programming to modify the Mission Dialer I/O alarm signals as requested by the Town.
*Cost: $1,689.21*

CO-2 Item 7 Description: Credit for Allowance Item allocated for Provision of New Electrical Service. United Illuminating has provided the new service at no cost to the Town.
*Credit: ($5,000)*

CO-2 Item 8 Description: Credit for Allowance Item allocated for Provision of New Gas Service. SCG has provided the new service at no cost to the Town.
*Credit: ($3,000)*

Attachments:
- CO-2 Pricing Details

DRAFT

| CHANGE IN CONTRACT PRICE | CHANGE IN CONTRACT TIMES<br>*[note changes in Milestones if applicable]* |
|---|---|
| Original Contract Price:<br><br>$ 5,019,025.00 | Original Contract Times: October 17, 2018<br>Substantial Completion: 450 Days<br>Ready for Final Payment: 510 Days<br>days or dates |
| [Increase] [Decrease] from previously approved Change Orders No. 1 to No. 1:<br><br>$ 160,058.87 | [Increase] [Decrease] from previously approved Change Orders No. 1 to No. 1:<br>Substantial Completion: 45 Days<br>Ready for Final Payment: 45 Days |
| Contract Price prior to this Change Order:<br><br>$ 5,179,083.87 | Contract Times prior to this Change Order:<br>Substantial Completion: 495 Days<br>Ready for Final Payment: 555 Days |
| Increase of this Change Order:<br><br>$ 35,195.17 | Increase of this Change Order:<br>Substantial Completion: 0 Days<br>Ready for Final Payment: 0 Days |
| Contract Price incorporating this Change Order:<br><br>$ 5,214,279.04 | Contract Times with all approved Change Orders:<br>Substantial Completion: 495 Days<br>Ready for Final Payment: 555 Days |

| RECOMMENDED: | ACCEPTED: | ACCEPTED: |
|---|---|---|
| By: _____ | By: _____ | By: _____ |
| Engineer (if required) | Owner (Authorized Signature) | Contractor (Authorized Signature) |
| Title: _____ | Title _____ | Title _____ |
| Date: _____ | Date _____ | Date _____ |

DRAFT

February 27, 2020

Arcadis
44 South Broadway
White Plains, NY 10601

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley P.S. Comprehensive Upgrade, Trumbull, CT
RFI#9- Deduct Masonry Modifications

Dear Vanessa:

Kovacs Construction Corporation is offering a credit per RFI#9 for the modifications described in RFI#9. We provided a new wall at back floor hatch and deducted approximately 94 sq.ft. of 8" block.

| | |
|---|---|
| GMC Mason Contractors | -1,712.00 |
| 5% GC P&O | 85.60 |
| **TOTAL REVISED CREDIT** | **$1,797.60** |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

Enclosure

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 ● Fax: (203) 790-1326

# G.M.C. MASON CONTRACTORS, INC.

HARTFORD, CT 06114
(860)727-9181 Fax (860)525-1955

**TITLE:** Change Order RFI #9

**PROJECT:** Beardsley Pump Trumbull

**TO:** Attn: Tom Kovacs
Kovacs Construction Corporation
321 Riggs Street
Oxford, CT 06478
Phone:203-743-4022

**PROPOSED CHANGE ORDER**

**NO.** 3

**DATE:** 02/06/2020

**CONTRACT/PO:** F-2820-11

**SUBMITTED:**

**COMPLETED:**

**REQUIRED:**

## DESCRIPTION

New wall at Back Floor Hatch in Garage Area.

Less Masonry Deduct 94 Sqft of 8" Block

Add Demo to insert precast lintels into existing exterior wall

| Num | Item | Description | Ref | Qty | Unit | Unit Price | Amount |
|---|---|---|---|---|---|---|---|
| 1 | 01 | 8" Masonry | | -94.000 | Sq. Ft. | 20.00 | -1,880.00 |
| 2 | 03 | Bricklayer | | 1.000 | Hrs | 95.00 | 95.00 |
| 3 | 04 | Mason Tender | | 1.000 | Hrs | 73.00 | 73.00 |

**Item Total:** ($1,712.00)

**Profit and Overhead 15%** $0.00

**Total:** ($1,712.00)

**APPROVAL**

**By:** _____ **By:** _____

**Date:** _____ **Date:** _____

February 3, 2020

Arcadis
44 South Broadway
PO Box 751
White Plains, NY 10602-0751

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley Pump Station Comprehensive Upgrade, Trumbull, CT
Electrical Concrete Pad

Dear Vanessa:

Kovacs Construction Corporation is requesting a change order to furnish and install a concrete equipment pad for the main switch and CT cabinet. During the approval of the equipment, we provided a combo unit to eliminate extra electrical equipment mounted on the wall. This unit, however was too large to be wall mounted, so an electrical pad was poured. The pricing is as follows:

| | |
|---|---|
| C&R Concrete | 3,564.00 |
| 5% GC P&O | 178.20 |
| Bonding Costs | 56.13 |
| Total this Proposed Change Order | $3,798.33 |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 ● Fax: (203) 790-1326

KOVACS
CONSTRUCTION CORPORATION

February 17, 2020

Arcadis
44 South Broadway
PO Box 751
White Plains, NY 10602-0751

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley Pump Station Comprehensive Upgrade, Trumbull, CT
Door 108-1

Dear Vanessa:

Kovacs Construction Corporation is requesting a change order to provide a new door for 108-1. The door was ordered to the schedule as shown on the drawings. The opening was thought to be opened up to the opening as shown on the drawings. We need to provide a new door and modify the frame to fit in the existing opening. The pricing is as follows:

| | |
|---|---|
| Door & Security Soulutions | 1,455.15 |
| 5% GC P&O | 72.76 |
| Total this Proposed Change Order | $1,527.91 |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

Enclosures

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 • Fax: (203) 790-1326

8 Horseshoe Lane Farmington, CT 06032 | 860.404.2838

# Change Order 3

| Project Information: | Presented To: |
|---|---|
| Beardsley Pump Station<br>Trumbull, CT | |

**Bid Documents:**
Plans Dated: 10/2018

1/ 3'0" x 7'2" Hollow Metal A60 Polystyrene Insulated Door

**Total Cost of Material: $1,305.15**

Reweld Frame

**Total Cost of Labor: $150.00**

**Total Credit: One Thousand Four Hundred Fifty-Five Dollars 15/100 ($1,455.15)**

Payment due 30 days from request. Late payments subject to a %1.5 late fee.
This proposal is to be incorporated into and shall become part of any further or additional agreement made for this project.

| Authorized Signature: | Acceptance of Proposal: |
|---|---|
| Caitlyn Tuz Date: 2/11/2020 | _____ Date: |

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

**To:**

Arcadis
44 South Broadway
P.O. Box 751
White Plains, NY 10602-0751
Attn: Vanessa McPherson
Phone: (914) 641-2418
Fax: (914) 641-2404

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change order** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

**SUMMARY**

| | | |
|---|---|---|
| **Material charges** | $ | 2,359.19 |
| **15% contractor profit and overhead** | | 353.88 |
| **Total material charges** | | 2,713.07 |

| | |
|---|---|
| **Subcontractor charges** | - |
| **5% contractor profit and overhead** | - |
| **Total subcontractor charges** | - |

| | |
|---|---|
| **Labor charges** | 15,434.95 |

| | |
|---|---|
| **Equipment charges** | 1,916.52 |

This change order is to fix the forcemain break in the Beardsley Zoo park area. We excavated down, found break, replaced one length of 20" pipe, one short sleeve and one long solid sleeve with megalugs, backfilled and cleaned area. Our price does not include fence, paving or landscaping.

| | | |
|---|---|---|
| **TOTAL CHARGES FOR CHANGE ORDER** | **$** | **20,064.54** |

As a result of this change order, we request a contract extension of XX working days.

Very truly yours,

KOVACS CONSTRUCTION CORPORATION,

Thomas Kovacs
General Manager

Accepted by

Date

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

## MATERIAL CHARGES

| Line Number | Description of material | Quantity | Unit of Measure | Unit Price | Extended Price |
|---|---|---|---|---|---|
| 1.00 | Four Loads of 3/4 process | 1.00 | lot | $ 1,610.44 | $ 1,610.44 |
| 2.00 | One (1) load of 3/4" stone | 1.00 | each | 498.75 | 498.75 |
| 3.00 | All Pipe used on spare part piping change order | - | each | - | - |
| 4.00 | 20" pipe, long solid sleeve, short solid sleeve | - | each | - | - |
| 5.00 | megalugs and accessories | - | each | - | - |
| 6.00 | Misc Equipment | 1.00 | each | 250.00 | 250.00 |
| 7.00 | | - | each | - | - |
| 8.00 | | - | each | - | - |
| 9.00 | | - | each | - | - |
| 10.00 | | - | each | - | - |
| 11.00 | | - | each | - | - |
| 12.00 | | - | each | - | - |
| 13.00 | | - | each | - | - |
| 14.00 | | - | each | - | - |
| 15.00 | | - | each | - | - |
| 16.00 | | - | each | - | - |
| 17.00 | | - | each | - | - |
| 18.00 | | - | each | - | - |
| 19.00 | | - | each | - | - |
| 20.00 | | - | each | - | - |

| | | |
|---|---|---|
| **TOTAL MATERIALS BEFORE APPLICABLE SALES TAX** | | **$ 2,359.19** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL MATERIALS INCLUDING APPLICABLE SALES TAX** | | **$ 2,359.19** |

**Notes:**

Account - Documents - **Document 547707**

# Invoice 547707

Print Document

**HAYNES MATERIALS**
GOHAYNES.COM
(203) 888 - 8117

| | | | | | |
|---|---|---|---|---|---|
| Customer | KOVACS CONSTRUCTION CORP 016791 | Job # | 11 | Date/Time | 01/24/2020 2:26 PM |
| Store | 5 | Clerk / User | BLB | Phone | (203) 743 - 4022 |

**Bill To Address:**
**KOVACS CONSTRUCTION CORP**
321 RIGGS STREET
OXFORD, CT
06478

**Ship To Address:**
**PUMP STA. 119 WHITE PLAINS RD**
119 WHITE PLAINS ROAD
TRUMBULL, CT
06611

| | | | | | |
|---|---|---|---|---|---|
| Terms | NET 30 DAYS | PO # | F2820-X | Resale # | 0743849-000 |
| Taxcode | 001 | Reference | PO # F2820-X | BankCard | |
| Salesperson | 14 | Authorized Charge | TOM KOVAC | Other | |
| Charge | ~~1,712.70~~ | Check | | | |
| Cash | | Change | | | |

| Item | Description | Ord | UM | Units | Price | Ext |
|---|---|---|---|---|---|---|
| LVW | LIGHT VEHICLE WEIGHT | 26,820 | EA | 26,820 | 0.00/EA | 0.00 |
| GVW | GROSS VEHICLE WEIGHT | 72,840 | EA | 72,840 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 23.01 | TN | 23.01 | 8.50/TN | 195.59 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 23.01 | EA | 23.01 | 8.50/EA | 195.59 |
| | RT8 S. EXIT 7 LEFT AT BOTTOM, GO | | | | | |
| | TO LIGHT WITH CUMBERLAND FARMS | | | | | |
| | TAKE RIGHT ON TO NOBLE AVE. GO | | | | | |
| | TO STOP SIGN & TAKE RIGHT INTO | | | | | |
| | ZOO ABOUT 1/2 MILE IN ON LEFT | | | | | |
| GVW | GROSS VEHICLE WEIGHT | 74,480 | EA | 74,480 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 23.83 | TN | 23.83 | 8.50/TN | 202.56 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 23.83 | EA | 23.83 | 8.50/EA | 202.56 |
| GVW | GROSS VEHICLE WEIGHT | 73,480 | EA | 73,480 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 23.33 | TN | 23.33 | 8.50/TN | 198.31 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 23.33 | EA | 23.33 | 8.50/EA | 198.31 |
| GVW | GROSS VEHICLE WEIGHT | 75,940 | EA | 75,940 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 24.56 | TN | 24.56 | 8.50/TN | 208.76 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 24.56 | EA | 24.56 | 8.50/EA | 208.76 |

Subtotal 1,610.44 Tax ~~102.26~~

Account - Documents - **Document 547493**

# Invoice 547493

Print Document

**HAYNES MATERIALS**
GOHAYNES.COM
(203) 888 - 8117

| | | | | | |
|---|---|---|---|---|---|
| Customer | KOVACS CONSTRUCTION CORP 016791 | Job # | 13 | Date/Time | 01/17/2020 2:29 PM |
| Store | 5 | Clerk / User | BLB | Phone | (203) 743 - 4022 |

**Bill To Address:**
**KOVACS CONSTRUCTION CORP**
321 RIGGS STREET
OXFORD, CT
06478

**Ship To Address:**
**SHELTON PUMP STATION**
505 HUNTINGTON STREET
SHELTON, CT
06484

F2840

| | | | | | |
|---|---|---|---|---|---|
| Terms | NET 30 DAYS | PO # | HUNTINGTON | Resale # | 0743849-000 |
| Taxcode | 001 | Reference | PO # HUNTINGTON | BankCard | |
| Salesperson | 14 | Authorized Charge | TOM KOVAC | Other | |
| Charge | 2,141.78 | Check | | | |
| Cash | | Change | | | |

| Item | Description | Ord | UM | Units | Price | Ext |
|---|---|---|---|---|---|---|
| LVW | LIGHT VEHICLE WEIGHT | 25,940 | EA | 25,940 | 0.00/EA | 0.00 |
| GVW | GROSS VEHICLE WEIGHT | 71,280 | EA | 71,280 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 22.67 | TN | 22.67 | 14.50/TN | 328.72 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 22.67 | EA | 22.67 | 7.50/EA | 170.03 |
| GVW | GROSS VEHICLE WEIGHT | 72,140 | EA | 72,140 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 23.1 | TN | 23.1 | 14.50/TN | 334.95 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 23.1 | EA | 23.1 | 7.50/EA | 173.25 |
| GVW | GROSS VEHICLE WEIGHT | 71,780 | EA | 71,780 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 22.92 | TN | 22.92 | 14.50/TN | 332.34 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 22.92 | EA | 22.92 | 7.50/EA | 171.90 |
| GVW | GROSS VEHICLE WEIGHT | 71,640 | EA | 71,640 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 22.85 | TN | 22.85 | 14.50/TN | 331.33 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 22.85 | EA | 22.85 | 7.50/EA | 171.38 |

49875

| | | | |
|---|---|---|---|
| Subtotal | 2,013.90 | Tax | 127.88 |

PAID

#155557
01/18/2020
$10,365.91

AWC

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

## LABOR CHARGES

| Line Number | Labor type | Labor Hours | Labor Rate | Extended Labor |
|---|---|---|---|---|
| 1.00 | Millwright-in-charge - regular time | 11.00 | $ 112.63 | $ 1,238.93 |
| 2.00 | Millwright-in-charge - overtime | 23.50 | 168.95 | 3,970.33 |
| 3.00 | Millwright-in-charge - double time | - | 225.26 | - |
| 4.00 | Laborer - regular time | 16.00 | 93.54 | 1,496.64 |
| 5.00 | Laborer - overtime | 33.50 | 140.31 | 4,700.39 |
| 6.00 | Laborer - double time | - | 187.08 | - |
| 7.00 | Millwright - regular time | 11.00 | 109.01 | 1,199.11 |
| 8.00 | Millwright - overtime | 15.50 | 163.52 | 2,534.56 |
| 9.00 | Millwright - double time | - | 218.02 | - |
| 10.00 | Machine operator - regular time | - | 117.27 | - |
| 11.00 | Machine operator - overtime | - | 175.91 | - |
| 12.00 | Machine operator - double time | - | 234.54 | - |
| 13.00 | Truck driver - regular time | - | 98.33 | - |
| 14.00 | Truck driver - overtime | 2.00 | 147.50 | 295.00 |
| 15.00 | Truck driver - double time | - | 196.66 | - |
| 16.00 | AUTOCAD shop drawings | - | 95.00 | - |
| 17.00 | Shop | - | 90.00 | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |
| | **TOTAL LABOR BEFORE APPLICABLE SALES TAX** | **112.50** | | **$ 15,434.95** |

| **Travel** | **Miles** | **Rate** | **Total** |
|---|---|---|---|
| XX trips at XXX miles per trip | - | $ 2.50 | - |
| Sales tax, if applicable | | 0.00% | - |
| **TOTAL LABOR INCLUDING APPLICABLE SALES TAX** | | | **$ 15,434.95** |

**Notes:**

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

## EQUIPMENT CHARGES

| Line Number | Equipment Type | Equipment Hours | Equipment Rate | Extended Equipment |
|---|---|---|---|---|
| 1.00 | Truck | 2.00 | 70.00 | 140.00 |
| 2.00 | Excavator | 8.00 | 75.00 | 600.00 |
| 3.00 | Skidster | 4.00 | 70.00 | 280.00 |
| 4.00 | Swat Truck -Generator etc. | 8.00 | 75.00 | 600.00 |
| 5.00 | Bonding Costs | 19,768.02 | 0.015 | 296.52 |
| 6.00 | | - | - | - |
| 7.00 | | - | - | - |
| 8.00 | | - | - | - |
| 9.00 | | - | - | - |
| 10.00 | | - | - | - |
| 11.00 | | - | - | - |
| 12.00 | | - | - | - |
| 13.00 | | - | - | - |
| 14.00 | | - | - | - |
| 15.00 | | - | - | - |
| 16.00 | | - | - | - |
| 17.00 | | - | - | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |

| | | |
|---|---|---|
| **TOTAL EQUIPMENT BEFORE APPLICABLE SALES TAX** | | **$ 1,916.52** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL EQUIPMENT INCLUDING APPLICABLE SALES TAX** | | **$ 1,916.52** |

**Notes:**

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

**To:**

Arcadis
44 South Broadway
P.O. Box 751
White Plains, NY 10602-0751
Attn: Vanessa McPherson
Phone: (914) 641-2418
Fax: (914) 641-2404

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change order** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## SUMMARY

| | | |
|---|---|---|
| **Material charges** | $ | 15,011.76 |
| **15% contractor profit and overhead** | | 2,251.76 |
| **Total material charges** | | 17,263.52 |

| | |
|---|---|
| **Subcontractor charges** | - |
| **5% contractor profit and overhead** | - |
| **Total subcontractor charges** | - |

| | |
|---|---|
| **Labor charges** | 234.54 |

| | |
|---|---|
| **Equipment charges** | 414.72 |

| | | |
|---|---|---|
| **TOTAL CHARGES FOR CHANGE ORDER** | **$** | **17,912.78** |

This Change order is to furnish 20" pipe and couplings for spare
Piping for the Beardsley Pump Station. The pricing also includes replacing the materials
that Nickerson provided during the forcemain break at the Beardsley Zoo area.

As a result of this change order, we request a contract extension of XX working days.

Very truly yours,

KOVACS CONSTRUCTION CORPORATION,

Thomas Kovacs
General Manager

Accepted by

Date

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## MATERIAL CHARGES

| Line Number | Description of material | Quantity | Unit of Measure | Unit Price | Extended Price |
|---|---|---|---|---|---|
| 1.00 | 20" CL 52 Pushon Pipe | 3.00 | lengths | $ 1,608.12 | $ 4,824.36 |
| 2.00 | 20X15 MJ long sleeve | 4.00 | each | 702.16 | 2,808.64 |
| 3.00 | 20 short sleeve on site | 1.00 | each | 596.12 | 596.12 |
| 4.00 | 20" megalug set with gasket and hardware | 10.00 | each | 349.16 | 3,491.60 |
| 5.00 | | - | each | - | - |
| 6.00 | Nickerson return | - | each | - | - |
| 7.00 | 20X15 MJ long sleeve | 1.00 | each | 702.16 | 702.16 |
| 8.00 | 20 short sleeve | 2.00 | each | 596.12 | 1,192.24 |
| 9.00 | 20" megalug set with gasket and hardware | 4.00 | each | 349.16 | 1,396.64 |
| 10.00 | | - | each | - | - |
| 11.00 | | - | each | - | - |
| 12.00 | | - | each | - | - |
| 13.00 | | - | each | - | - |
| 14.00 | | - | each | - | - |
| 15.00 | | - | each | - | - |
| 16.00 | | - | each | - | - |
| 17.00 | | - | each | - | - |
| 18.00 | | - | each | - | - |
| 19.00 | | - | each | - | - |
| 20.00 | | - | each | - | - |

| | | |
|---|---|---|
| **TOTAL MATERIALS BEFORE APPLICABLE SALES TAX** | | **$ 15,011.76** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL MATERIALS INCLUDING APPLICABLE SALES TAX** | | **$ 15,011.76** |

**Notes:**

FERGUSON WATERWORKS

FERGUSON WATERWORKS #1985
57 S.W. CUTOFF
WORCESTER, MA 01604-1517

Phone: 508-754-2027
Fax: 508-754-2158

Deliver To:
From: Paul Cleveland
Comments:

14:46:06 JAN 29 2020



FERGUSON WATERWORKS #576
Price Quotation
Phone: 508-754-2027
Fax: 508-754-2158

**Bid No:** B371388
**Bid Date:** 01/27/20
**Quoted By:** PC

**Cust Phone:** 203-743-4022
**Terms:** NET 10TH PROX

**Customer:** KOVACS CONSTRUCTION CORP
BEARDSLEY PUMP STS
321 RIGGS STREET
OXFORD, CT 06478

**Ship To:** KOVACS CONSTRUCTION CORP
BEARDSLEY PUMP STS
321 RIGGS STREET
OXFORD, CT 06478

**Cust PO#:** 20" MATERIAL

**Job Name:** BEARDSLEY PUMP STS

| Item | Description | Quantity | Net Price | UM | Total |
|---|---|---|---|---|---|
| DI52SJP20 | 20 CL52 DI SJ PIPE | 18 | 89.340 | FT | 1608.12 |
| MJLSLA20 | 20X15 MJ C153 LONG SLV L/A | 2 | 702.155 | EA | 1404.31 |
| E112000 | 20 MEGALUG F/ DI | 4 | 299.158 | EA | 1196.63 |
| IMJBGP20 | 20 MJ C153 BLT GSKT PK L/ GLAND | 4 | 50.000 | EA | 200.00 |
| FBSS20 | 20 MJ C110 SHORT SLV W/A | 1 | 596.120 | EA | 596.12 |
| MJLSLA20 | 20X15 MJ C153 LONG SLV L/A | 1 | 702.150 | EA | 702.15 |
| E112000 | 20 MEGALUG F/ DI | 4 | 299.160 | EA | 1196.64 |
| IMJBGP20 | 20 MJ C153 BLT GSKT PK L/ GLAND | 4 | 50.000 | EA | 200.00 |

| | |
|---|---|
| **Net Total:** | $7103.97 |
| **Tax:** | $0.00 |
| **Freight:** | $0.00 |
| **Total:** | $7103.97 |

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.

CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at https://www.ferguson.com/content/website-info/terms-of-sale
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with *NP in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.

**HOW ARE WE DOING? WE WANT YOUR FEEDBACK!**
Scan the QR code or use the link below to
complete a survey about your bids:
**https://survey.medallia.com/?bidsorder&fc=576&on=46128**

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## LABOR CHARGES

| Line Number | Labor type | Labor Hours | Labor Rate | Extended Labor |
|---|---|---|---|---|
| 1.00 | Millwright-in-charge - regular time | - | $ 112.63 | $ - |
| 2.00 | Millwright-in-charge - overtime | - | 168.95 | - |
| 3.00 | Millwright-in-charge - double time | - | 225.26 | - |
| 4.00 | Laborer - regular time | - | 93.54 | - |
| 5.00 | Laborer - overtime | - | 140.31 | - |
| 6.00 | Laborer - double time | - | 187.08 | - |
| 7.00 | Millwright - regular time | - | 109.01 | - |
| 8.00 | Millwright - overtime | - | 163.52 | - |
| 9.00 | Millwright - double time | - | 218.02 | - |
| 10.00 | Machine operator - regular time | 2.00 | 117.27 | 234.54 |
| 11.00 | Machine operator - overtime | - | 175.91 | - |
| 12.00 | Machine operator - double time | - | 234.54 | - |
| 13.00 | Truck driver - regular time | - | 98.33 | - |
| 14.00 | Truck driver - overtime | - | 147.50 | - |
| 15.00 | Truck driver - double time | - | 196.66 | - |
| 16.00 | AUTOCAD shop drawings | - | 95.00 | - |
| 17.00 | Shop | - | 90.00 | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |

**TOTAL LABOR BEFORE APPLICABLE SALES TAX** **2.00** **$ 234.54**

| **Travel** | **Miles** | **Rate** | **Total** |
|---|---|---|---|
| XX trips at XXX miles per trip | - | $ 2.50 | - |
| Sales tax, if applicable | | 0.00% | - |

**TOTAL LABOR INCLUDING APPLICABLE SALES TAX** **$ 234.54**

**Notes:**

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## EQUIPMENT CHARGES

| Line Number | Equipment Type | Equipment Hours | Equipment Rate | Extended Equipment |
|---|---|---|---|---|
| 1.00 | Excavator | 2.00 | 75.00 | 150.00 |
| 2.00 | | - | - | - |
| 3.00 | Bond Costs | 17,648.06 | 0.015 | 264.72 |
| 4.00 | | - | - | - |
| 5.00 | | - | - | - |
| 6.00 | | - | - | - |
| 7.00 | | - | - | - |
| 8.00 | | - | - | - |
| 9.00 | | - | - | - |
| 10.00 | | - | - | - |
| 11.00 | | - | - | - |
| 12.00 | | - | - | - |
| 13.00 | | - | - | - |
| 14.00 | | - | - | - |
| 15.00 | | - | - | - |
| 16.00 | | - | - | - |
| 17.00 | | - | - | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |

| | | |
|---|---|---|
| **TOTAL EQUIPMENT BEFORE APPLICABLE SALES TAX** | | **$ 414.72** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL EQUIPMENT INCLUDING APPLICABLE SALES TAX** | | **$ 414.72** |

**Notes:**

KOVACS
CONSTRUCTION CORPORATION

March 23, 2020

Arcadis
44 South Broadway
PO Box 751
White Plains, NY 10602-0751

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley Pump Station Comprehensive Upgrade, Trumbull, CT
Instrumentation

Dear Vanessa:

Kovacs Construction Corporation is requesting a change order to modify the Mission Dialer I/O per alarm changes requested by the Town. The pricing is as follows:

| | |
|---|---|
| Knapp (Attached) | 1,585.00 |
| 5% GC P&O | 79.25 |
| Bonding Costs | 24.96 |
| Total this Proposed Change Order | $1,689.21 |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

Enclosure

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 • Fax: (203) 790-1326

KNAPP ENGINEERING
AUTOMATION AND CONTROL SYSTEMS
P.O. Box 7057 Prospect, CT 06712
(203) 758-3503 FAX (203) 758-0554

# INVOICE

| DATE | INVOICE # |
|---|---|
| 3/18/2020 | 202003-23 |

BILL TO:

Accounts Payable
KOVACS CONSTRUCTION CORP.
321 Riggs Street
Oxford, CT 06478

| P.O. NUMBER | TERMS | PROJECT |
|---|---|---|
| F-2820-4 | Net 30 | 180825 BEAR... |

| QUANTITY | DESCRIPTION | RATE | AMOUNT |
|---|---|---|---|
| | BEARDSLEY PUMP STATION-TRUMBULL | | |
| | Mission Dialer I/O changes contract modification request | | |
| | 3/12/20 | | |
| 2 | Design Changes | 115.00 | 230.00 |
| | 3/16/20 | | |
| 6 | Make wiring changes to mission inputs. Rewire components in PLC Panel and connect to mission control wiring. | 95.00 | 570.00 |
| 6 | Program changes for inputs to mission. Change OIT screens for removed alarms, Change scaling on Trend Screen. Added time control for high capacity pump exercise routine. | 115.00 | 690.00 |
| 1 | Update Drawings | 95.00 | 95.00 |
| | | **TOTAL** | $1,585.00 |

PRODUCT 13054G USE WITH 9308C ENVELOPE Deluxe Corporation 1-800-328-0304 or www.deluxe.com/shop PRINTED IN U.S.A. A

218 CA55CF TOXRX2 08/13/2019 13:53

EJCDC
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

**Change Order No.** 2

| | | | |
|---|---|---|---|
| Date of Issuance: | 4/2/2020 | Effective Date: | 4/2/2020 |
| Owner: | Town of Trumbull | Owner's Contract No.: | 6297 |
| Contractor: | Kovacs Construction Corporation | Contractor's Project No.: | F-2820 |
| Engineer: | Arcadis U.S., Inc. | Engineer's Project No.: | 06532002.0000 |
| Project: | Beardsley Pump Station Comprehensive Upgrade | Contract Name: | |

The Contract is modified as follows upon execution of this Change Order:

CO-2 Item 1 Description: Modify the configuration of the new CMU wall along the dry well stairs, resulting in less CMU required and a deduct of approximately 94sq ft of 8" CMU block.
*Credit: ($1,797.60)*

CO-2 Item 2 Description: Furnish and install a concrete equipment pad for the main switch and CT cabinet which was modified to be a combo unit to eliminate additional wall mounted electrical equipment.
*Cost: $3,798.33*

CO-2 Item 3 Description: Furnish and install a new door for Door 108-1 to accommodate actual field conditions. *Cost: $1,527.91*

CO-2 Item 4 Description: Materials, equipment, and labor for emergency force main repair in the Beardsley Park on January 23, 2020.
*Cost: $20,064.54*

CO-2 Item 5 Description: Cost for replenishing parts borrowed during the emergency force main repair in the Beardsley Park on January 23, 2020 and provision of additional spares at the Town's request.
*Cost: $17,912.78*

CO-2 Item 6 Description: Furnish additional programming to modify the Mission Dialer I/O alarm signals as requested by the Town.
*Cost: $1,689.21*

CO-2 Item 7 Description: Credit for Allowance Item allocated for Provision of New Electrical Service. United Illuminating has provided the new service at no cost to the Town.
*Credit: ($5,000)*

CO-2 Item 8 Description: Credit for Allowance Item allocated for Provision of New Gas Service. SCG has provided the new service at no cost to the Town.
*Credit: ($3,000)*

Attachments:
- CO-2 Pricing Details

DRAFT

| CHANGE IN CONTRACT PRICE | CHANGE IN CONTRACT TIMES<br>*[note changes in Milestones if applicable]* |
|---|---|
| Original Contract Price:<br><br>$ 5,019,025.00 | Original Contract Times: October 17, 2018<br>Substantial Completion: 450 Days<br>Ready for Final Payment: 510 Days<br>days or dates |
| [Increase] [Decrease] from previously approved Change Orders No. 1 to No. 1:<br><br>$ 160,058.87 | [Increase] [Decrease] from previously approved Change Orders No. 1 to No. 1:<br>Substantial Completion: 45 Days<br>Ready for Final Payment: 45 Days |
| Contract Price prior to this Change Order:<br><br>$ 5,179,083.87 | Contract Times prior to this Change Order:<br>Substantial Completion: 495 Days<br>Ready for Final Payment: 555 Days |
| Increase of this Change Order:<br><br>$ 35,195.17 | Increase of this Change Order:<br>Substantial Completion: 0 Days<br>Ready for Final Payment: 0 Days |
| Contract Price incorporating this Change Order:<br><br>$ 5,214,279.04 | Contract Times with all approved Change Orders:<br>Substantial Completion: 495 Days<br>Ready for Final Payment: 555 Days |

| RECOMMENDED: | ACCEPTED: | ACCEPTED: |
|---|---|---|
| By: _____ | By: _____ | By: _____ |
| Engineer (if required) | Owner (Authorized Signature) | Contractor (Authorized Signature) |
| Title: _____ | Title _____ | Title _____ |
| Date: _____ | Date _____ | Date _____ |

DRAFT

February 27, 2020

Arcadis
44 South Broadway
White Plains, NY 10601

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley P.S. Comprehensive Upgrade, Trumbull, CT
RFI#9- Deduct Masonry Modifications

Dear Vanessa:

Kovacs Construction Corporation is offering a credit per RFI#9 for the modifications described in RFI#9. We provided a new wall at back floor hatch and deducted approximately 94 sq.ft. of 8" block.

| | |
|---|---|
| GMC Mason Contractors | -1,712.00 |
| 5% GC P&O | 85.60 |
| **TOTAL REVISED CREDIT** | **$1,797.60** |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

Enclosure

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 ● Fax: (203) 790-1326

# G.M.C. MASON CONTRACTORS, INC.

HARTFORD, CT 06114
(860)727-9181 Fax (860)525-1955

**TITLE:** Change Order RFI #9

**PROJECT:** Beardsley Pump Trumbull

**TO:** Attn: Tom Kovacs
Kovacs Construction Corporation
321 Riggs Street
Oxford, CT 06478
Phone:203-743-4022

**PROPOSED CHANGE ORDER**

**NO.** 3

**DATE:** 02/06/2020

**CONTRACT/PO:** F-2820-11

**SUBMITTED:**

**COMPLETED:**

**REQUIRED:**

## DESCRIPTION

New wall at Back Floor Hatch in Garage Area.

Less Masonry Deduct 94 Sqft of 8" Block

Add Demo to insert precast lintels into existing exterior wall

| Num | Item | Description | Ref | Qty | Unit | Unit Price | Amount |
|---|---|---|---|---|---|---|---|
| 1 | 01 | 8" Masonry | | -94.000 | Sq. Ft. | 20.00 | -1,880.00 |
| 2 | 03 | Bricklayer | | 1.000 | Hrs | 95.00 | 95.00 |
| 3 | 04 | Mason Tender | | 1.000 | Hrs | 73.00 | 73.00 |

**Item Total:** ($1,712.00)

**Profit and Overhead 15%** $0.00

**Total:** ($1,712.00)

**APPROVAL**

**By:** _____ **By:** _____

**Date:** _____ **Date:** _____

February 3, 2020

Arcadis
44 South Broadway
PO Box 751
White Plains, NY 10602-0751

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley Pump Station Comprehensive Upgrade, Trumbull, CT
Electrical Concrete Pad

Dear Vanessa:

Kovacs Construction Corporation is requesting a change order to furnish and install a concrete equipment pad for the main switch and CT cabinet. During the approval of the equipment, we provided a combo unit to eliminate extra electrical equipment mounted on the wall. This unit, however was too large to be wall mounted, so an electrical pad was poured. The pricing is as follows:

| | |
|---|---|
| C&R Concrete | 3,564.00 |
| 5% GC P&O | 178.20 |
| Bonding Costs | 56.13 |
| Total this Proposed Change Order | $3,798.33 |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 ● Fax: (203) 790-1326

KOVACS
CONSTRUCTION CORPORATION

February 17, 2020

Arcadis
44 South Broadway
PO Box 751
White Plains, NY 10602-0751

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley Pump Station Comprehensive Upgrade, Trumbull, CT
Door 108-1

Dear Vanessa:

Kovacs Construction Corporation is requesting a change order to provide a new door for 108-1. The door was ordered to the schedule as shown on the drawings. The opening was thought to be opened up to the opening as shown on the drawings. We need to provide a new door and modify the frame to fit in the existing opening. The pricing is as follows:

| | |
|---|---|
| Door & Security Soulutions | 1,455.15 |
| 5% GC P&O | 72.76 |
| Total this Proposed Change Order | $1,527.91 |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

Enclosures

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 • Fax: (203) 790-1326

8 Horseshoe Lane Farmington, CT 06032 | 860.404.2838

# Change Order 3

| Project Information: | Presented To: |
|---|---|
| Beardsley Pump Station<br>Trumbull, CT | |

**Bid Documents:**
Plans Dated: 10/2018

1/ 3'0" x 7'2" Hollow Metal A60 Polystyrene Insulated Door

**Total Cost of Material: $1,305.15**

Reweld Frame

**Total Cost of Labor: $150.00**

**Total Credit: One Thousand Four Hundred Fifty-Five Dollars 15/100 ($1,455.15)**

Payment due 30 days from request. Late payments subject to a %1.5 late fee.
This proposal is to be incorporated into and shall become part of any further or additional agreement made for this project.

| Authorized Signature: | Acceptance of Proposal: |
|---|---|
| Caitlyn Tuz Date: 2/11/2020 | _____ Date: |

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

**To:**

Arcadis
44 South Broadway
P.O. Box 751
White Plains, NY 10602-0751
Attn: Vanessa McPherson
Phone: (914) 641-2418
Fax: (914) 641-2404

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change order** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

**SUMMARY**

| | | |
|---|---|---|
| **Material charges** | $ | 2,359.19 |
| **15% contractor profit and overhead** | | 353.88 |
| **Total material charges** | | 2,713.07 |

| | |
|---|---|
| **Subcontractor charges** | - |
| **5% contractor profit and overhead** | - |
| **Total subcontractor charges** | - |

| | |
|---|---|
| **Labor charges** | 15,434.95 |

| | |
|---|---|
| **Equipment charges** | 1,916.52 |

This change order is to fix the forcemain break in the Beardsley Zoo park area. We excavated down, found break, replaced one length of 20" pipe, one short sleeve and one long solid sleeve with megalugs, backfilled and cleaned area. Our price does not include fence, paving or landscaping.

| | | |
|---|---|---|
| **TOTAL CHARGES FOR CHANGE ORDER** | **$** | **20,064.54** |

As a result of this change order, we request a contract extension of XX working days.

Very truly yours,

KOVACS CONSTRUCTION CORPORATION,

Thomas Kovacs
General Manager

Accepted by

Date

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

## MATERIAL CHARGES

| Line Number | Description of material | Quantity | Unit of Measure | Unit Price | Extended Price |
|---|---|---|---|---|---|
| 1.00 | Four Loads of 3/4 process | 1.00 | lot | $ 1,610.44 | $ 1,610.44 |
| 2.00 | One (1) load of 3/4" stone | 1.00 | each | 498.75 | 498.75 |
| 3.00 | All Pipe used on spare part piping change order | - | each | - | - |
| 4.00 | 20" pipe, long solid sleeve, short solid sleeve | - | each | - | - |
| 5.00 | megalugs and accessories | - | each | - | - |
| 6.00 | Misc Equipment | 1.00 | each | 250.00 | 250.00 |
| 7.00 | | - | each | - | - |
| 8.00 | | - | each | - | - |
| 9.00 | | - | each | - | - |
| 10.00 | | - | each | - | - |
| 11.00 | | - | each | - | - |
| 12.00 | | - | each | - | - |
| 13.00 | | - | each | - | - |
| 14.00 | | - | each | - | - |
| 15.00 | | - | each | - | - |
| 16.00 | | - | each | - | - |
| 17.00 | | - | each | - | - |
| 18.00 | | - | each | - | - |
| 19.00 | | - | each | - | - |
| 20.00 | | - | each | - | - |

| | | |
|---|---|---|
| **TOTAL MATERIALS BEFORE APPLICABLE SALES TAX** | | **$ 2,359.19** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL MATERIALS INCLUDING APPLICABLE SALES TAX** | | **$ 2,359.19** |

**Notes:**

Account - Documents - **Document 547707**

# Invoice 547707

Print Document

**HAYNES MATERIALS**
GOHAYNES.COM
(203) 888 - 8117

| | | | | | |
|---|---|---|---|---|---|
| Customer | KOVACS CONSTRUCTION CORP 016791 | Job # | 11 | Date/Time | 01/24/2020 2:26 PM |
| Store | 5 | Clerk / User | BLB | Phone | (203) 743 - 4022 |

**Bill To Address:**
**KOVACS CONSTRUCTION CORP**
321 RIGGS STREET
OXFORD, CT
06478

**Ship To Address:**
**PUMP STA. 119 WHITE PLAINS RD**
119 WHITE PLAINS ROAD
TRUMBULL, CT
06611

| | | | | | |
|---|---|---|---|---|---|
| Terms | NET 30 DAYS | PO # | F2820-X | Resale # | 0743849-000 |
| Taxcode | 001 | Reference | PO # F2820-X | BankCard | |
| Salesperson | 14 | Authorized Charge | TOM KOVAC | Other | |
| Charge | ~~1,712.70~~ | Check | | | |
| Cash | | Change | | | |

| Item | Description | Ord | UM | Units | Price | Ext |
|---|---|---|---|---|---|---|
| LVW | LIGHT VEHICLE WEIGHT | 26,820 | EA | 26,820 | 0.00/EA | 0.00 |
| GVW | GROSS VEHICLE WEIGHT | 72,840 | EA | 72,840 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 23.01 | TN | 23.01 | 8.50/TN | 195.59 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 23.01 | EA | 23.01 | 8.50/EA | 195.59 |
| | RT8 S. EXIT 7 LEFT AT BOTTOM, GO | | | | | |
| | TO LIGHT WITH CUMBERLAND FARMS | | | | | |
| | TAKE RIGHT ON TO NOBLE AVE. GO | | | | | |
| | TO STOP SIGN & TAKE RIGHT INTO | | | | | |
| | ZOO ABOUT 1/2 MILE IN ON LEFT | | | | | |
| GVW | GROSS VEHICLE WEIGHT | 74,480 | EA | 74,480 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 23.83 | TN | 23.83 | 8.50/TN | 202.56 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 23.83 | EA | 23.83 | 8.50/EA | 202.56 |
| GVW | GROSS VEHICLE WEIGHT | 73,480 | EA | 73,480 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 23.33 | TN | 23.33 | 8.50/TN | 198.31 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 23.33 | EA | 23.33 | 8.50/EA | 198.31 |
| GVW | GROSS VEHICLE WEIGHT | 75,940 | EA | 75,940 | 0.00/EA | 0.00 |
| 2770 | PROCESS STONE 3/4" SEYMOUR | 24.56 | TN | 24.56 | 8.50/TN | 208.76 |
| 1292 | DEL ZONE 3 TRI/TON 7010 MATT | 24.56 | EA | 24.56 | 8.50/EA | 208.76 |

Subtotal 1,610.44 Tax ~~102.26~~

Account - Documents - **Document 547493**

# Invoice 547493

Print Document

**HAYNES MATERIALS**
GOHAYNES.COM
(203) 888 - 8117

| | | | | | |
|---|---|---|---|---|---|
| Customer | KOVACS CONSTRUCTION CORP 016791 | Job # | 13 | Date/Time | 01/17/2020 2:29 PM |
| Store | 5 | Clerk / User | BLB | Phone | (203) 743 - 4022 |

**Bill To Address:**
**KOVACS CONSTRUCTION CORP**
321 RIGGS STREET
OXFORD, CT
06478

**Ship To Address:**
**SHELTON PUMP STATION**
505 HUNTINGTON STREET
SHELTON, CT
06484

F2840

| | | | | | |
|---|---|---|---|---|---|
| Terms | NET 30 DAYS | PO # | HUNTINGTON | Resale # | 0743849-000 |
| Taxcode | 001 | Reference | PO # HUNTINGTON | BankCard | |
| Salesperson | 14 | Authorized Charge | TOM KOVAC | Other | |
| Charge | 2,141.78 | Check | | | |
| Cash | | Change | | | |

| Item | Description | Ord | UM | Units | Price | Ext |
|---|---|---|---|---|---|---|
| LVW | LIGHT VEHICLE WEIGHT | 25,940 | EA | 25,940 | 0.00/EA | 0.00 |
| GVW | GROSS VEHICLE WEIGHT | 71,280 | EA | 71,280 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 22.67 | TN | 22.67 | 14.50/TN | 328.72 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 22.67 | EA | 22.67 | 7.50/EA | 170.03 |
| GVW | GROSS VEHICLE WEIGHT | 72,140 | EA | 72,140 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 23.1 | TN | 23.1 | 14.50/TN | 334.95 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 23.1 | EA | 23.1 | 7.50/EA | 173.25 |
| GVW | GROSS VEHICLE WEIGHT | 71,780 | EA | 71,780 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 22.92 | TN | 22.92 | 14.50/TN | 332.34 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 22.92 | EA | 22.92 | 7.50/EA | 171.90 |
| GVW | GROSS VEHICLE WEIGHT | 71,640 | EA | 71,640 | 0.00/EA | 0.00 |
| 2775 | CRUSHED STONE 3/4" SEYMOUR | 22.85 | TN | 22.85 | 14.50/TN | 331.33 |
| 1290 | DEL ZONE 2 TRI/TON 7014 GLEN | 22.85 | EA | 22.85 | 7.50/EA | 171.38 |

49875

| | | | |
|---|---|---|---|
| Subtotal | 2,013.90 | Tax | 127.88 |

PAID

#155557
01/18/2020
$10,365.91

AWC

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

## LABOR CHARGES

| Line Number | Labor type | Labor Hours | Labor Rate | Extended Labor |
|---|---|---|---|---|
| 1.00 | Millwright-in-charge - regular time | 11.00 | $ 112.63 | $ 1,238.93 |
| 2.00 | Millwright-in-charge - overtime | 23.50 | 168.95 | 3,970.33 |
| 3.00 | Millwright-in-charge - double time | - | 225.26 | - |
| 4.00 | Laborer - regular time | 16.00 | 93.54 | 1,496.64 |
| 5.00 | Laborer - overtime | 33.50 | 140.31 | 4,700.39 |
| 6.00 | Laborer - double time | - | 187.08 | - |
| 7.00 | Millwright - regular time | 11.00 | 109.01 | 1,199.11 |
| 8.00 | Millwright - overtime | 15.50 | 163.52 | 2,534.56 |
| 9.00 | Millwright - double time | - | 218.02 | - |
| 10.00 | Machine operator - regular time | - | 117.27 | - |
| 11.00 | Machine operator - overtime | - | 175.91 | - |
| 12.00 | Machine operator - double time | - | 234.54 | - |
| 13.00 | Truck driver - regular time | - | 98.33 | - |
| 14.00 | Truck driver - overtime | 2.00 | 147.50 | 295.00 |
| 15.00 | Truck driver - double time | - | 196.66 | - |
| 16.00 | AUTOCAD shop drawings | - | 95.00 | - |
| 17.00 | Shop | - | 90.00 | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |
| | **TOTAL LABOR BEFORE APPLICABLE SALES TAX** | **112.50** | | **$ 15,434.95** |

| **Travel** | **Miles** | **Rate** | **Total** |
|---|---|---|---|
| XX trips at XXX miles per trip | - | $ 2.50 | - |
| Sales tax, if applicable | | 0.00% | - |
| **TOTAL LABOR INCLUDING APPLICABLE SALES TAX** | | | **$ 15,434.95** |

**Notes:**

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>Force Main Break in the Beardsley Zoo Area |
| **Date submitted** | 2/28/2020 |

## EQUIPMENT CHARGES

| Line Number | Equipment Type | Equipment Hours | Equipment Rate | Extended Equipment |
|---|---|---|---|---|
| 1.00 | Truck | 2.00 | 70.00 | 140.00 |
| 2.00 | Excavator | 8.00 | 75.00 | 600.00 |
| 3.00 | Skidster | 4.00 | 70.00 | 280.00 |
| 4.00 | Swat Truck -Generator etc. | 8.00 | 75.00 | 600.00 |
| 5.00 | Bonding Costs | 19,768.02 | 0.015 | 296.52 |
| 6.00 | | - | - | - |
| 7.00 | | - | - | - |
| 8.00 | | - | - | - |
| 9.00 | | - | - | - |
| 10.00 | | - | - | - |
| 11.00 | | - | - | - |
| 12.00 | | - | - | - |
| 13.00 | | - | - | - |
| 14.00 | | - | - | - |
| 15.00 | | - | - | - |
| 16.00 | | - | - | - |
| 17.00 | | - | - | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |

| | | |
|---|---|---|
| **TOTAL EQUIPMENT BEFORE APPLICABLE SALES TAX** | | **$ 1,916.52** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL EQUIPMENT INCLUDING APPLICABLE SALES TAX** | | **$ 1,916.52** |

**Notes:**

**KOVACS CONSTRUCTION CORPORATION**
**321 Riggs Street**
**Oxford, CT 06478-1129**
**Phone: 203-743-4022**
**Fax: 203-790-1326**

**To:**

Arcadis
44 South Broadway
P.O. Box 751
White Plains, NY 10602-0751
Attn: Vanessa McPherson
Phone: (914) 641-2418
Fax: (914) 641-2404

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change order** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## SUMMARY

| | | |
|---|---|---|
| **Material charges** | $ | 15,011.76 |
| **15% contractor profit and overhead** | | 2,251.76 |
| **Total material charges** | | 17,263.52 |

| | |
|---|---|
| **Subcontractor charges** | - |
| **5% contractor profit and overhead** | - |
| **Total subcontractor charges** | - |

| | |
|---|---|
| **Labor charges** | 234.54 |

| | |
|---|---|
| **Equipment charges** | 414.72 |

| | | |
|---|---|---|
| **TOTAL CHARGES FOR CHANGE ORDER** | **$** | **17,912.78** |

This Change order is to furnish 20" pipe and couplings for spare
Piping for the Beardsley Pump Station. The pricing also includes replacing the materials
that Nickerson provided during the forcemain break at the Beardsley Zoo area.

As a result of this change order, we request a contract extension of XX working days.

Very truly yours,

KOVACS CONSTRUCTION CORPORATION,

Thomas Kovacs
General Manager

Accepted by

Date

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## MATERIAL CHARGES

| Line Number | Description of material | Quantity | Unit of Measure | Unit Price | Extended Price |
|---|---|---|---|---|---|
| 1.00 | 20" CL 52 Pushon Pipe | 3.00 | lengths | $ 1,608.12 | $ 4,824.36 |
| 2.00 | 20X15 MJ long sleeve | 4.00 | each | 702.16 | 2,808.64 |
| 3.00 | 20 short sleeve on site | 1.00 | each | 596.12 | 596.12 |
| 4.00 | 20" megalug set with gasket and hardware | 10.00 | each | 349.16 | 3,491.60 |
| 5.00 | | - | each | - | - |
| 6.00 | Nickerson return | - | each | - | - |
| 7.00 | 20X15 MJ long sleeve | 1.00 | each | 702.16 | 702.16 |
| 8.00 | 20 short sleeve | 2.00 | each | 596.12 | 1,192.24 |
| 9.00 | 20" megalug set with gasket and hardware | 4.00 | each | 349.16 | 1,396.64 |
| 10.00 | | - | each | - | - |
| 11.00 | | - | each | - | - |
| 12.00 | | - | each | - | - |
| 13.00 | | - | each | - | - |
| 14.00 | | - | each | - | - |
| 15.00 | | - | each | - | - |
| 16.00 | | - | each | - | - |
| 17.00 | | - | each | - | - |
| 18.00 | | - | each | - | - |
| 19.00 | | - | each | - | - |
| 20.00 | | - | each | - | - |

| | | |
|---|---|---|
| **TOTAL MATERIALS BEFORE APPLICABLE SALES TAX** | | **$ 15,011.76** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL MATERIALS INCLUDING APPLICABLE SALES TAX** | | **$ 15,011.76** |

**Notes:**

FERGUSON WATERWORKS

FERGUSON WATERWORKS #1985
57 S.W. CUTOFF
WORCESTER, MA 01604-1517

Phone: 508-754-2027
Fax: 508-754-2158

Deliver To:
From: Paul Cleveland
Comments:

14:46:06 JAN 29 2020



FERGUSON WATERWORKS #576
Price Quotation
Phone: 508-754-2027
Fax: 508-754-2158

**Bid No:** B371388
**Bid Date:** 01/27/20
**Quoted By:** PC

**Cust Phone:** 203-743-4022
**Terms:** NET 10TH PROX

**Customer:** KOVACS CONSTRUCTION CORP
BEARDSLEY PUMP STS
321 RIGGS STREET
OXFORD, CT 06478

**Ship To:** KOVACS CONSTRUCTION CORP
BEARDSLEY PUMP STS
321 RIGGS STREET
OXFORD, CT 06478

**Cust PO#:** 20" MATERIAL

**Job Name:** BEARDSLEY PUMP STS

| Item | Description | Quantity | Net Price | UM | Total |
|---|---|---|---|---|---|
| DI52SJP20 | 20 CL52 DI SJ PIPE | 18 | 89.340 | FT | 1608.12 |
| MJLSLA20 | 20X15 MJ C153 LONG SLV L/A | 2 | 702.155 | EA | 1404.31 |
| E112000 | 20 MEGALUG F/ DI | 4 | 299.158 | EA | 1196.63 |
| IMJBGP20 | 20 MJ C153 BLT GSKT PK L/ GLAND | 4 | 50.000 | EA | 200.00 |
| FBSS20 | 20 MJ C110 SHORT SLV W/A | 1 | 596.120 | EA | 596.12 |
| MJLSLA20 | 20X15 MJ C153 LONG SLV L/A | 1 | 702.150 | EA | 702.15 |
| E112000 | 20 MEGALUG F/ DI | 4 | 299.160 | EA | 1196.64 |
| IMJBGP20 | 20 MJ C153 BLT GSKT PK L/ GLAND | 4 | 50.000 | EA | 200.00 |

| | |
|---|---|
| **Net Total:** | $7103.97 |
| **Tax:** | $0.00 |
| **Freight:** | $0.00 |
| **Total:** | $7103.97 |

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.

CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at https://www.ferguson.com/content/website-info/terms-of-sale
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with *NP in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.

**HOW ARE WE DOING? WE WANT YOUR FEEDBACK!**
Scan the QR code or use the link below to
complete a survey about your bids:
**https://survey.medallia.com/?bidsorder&fc=576&on=46128**

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## LABOR CHARGES

| Line Number | Labor type | Labor Hours | Labor Rate | Extended Labor |
|---|---|---|---|---|
| 1.00 | Millwright-in-charge - regular time | - | $ 112.63 | $ - |
| 2.00 | Millwright-in-charge - overtime | - | 168.95 | - |
| 3.00 | Millwright-in-charge - double time | - | 225.26 | - |
| 4.00 | Laborer - regular time | - | 93.54 | - |
| 5.00 | Laborer - overtime | - | 140.31 | - |
| 6.00 | Laborer - double time | - | 187.08 | - |
| 7.00 | Millwright - regular time | - | 109.01 | - |
| 8.00 | Millwright - overtime | - | 163.52 | - |
| 9.00 | Millwright - double time | - | 218.02 | - |
| 10.00 | Machine operator - regular time | 2.00 | 117.27 | 234.54 |
| 11.00 | Machine operator - overtime | - | 175.91 | - |
| 12.00 | Machine operator - double time | - | 234.54 | - |
| 13.00 | Truck driver - regular time | - | 98.33 | - |
| 14.00 | Truck driver - overtime | - | 147.50 | - |
| 15.00 | Truck driver - double time | - | 196.66 | - |
| 16.00 | AUTOCAD shop drawings | - | 95.00 | - |
| 17.00 | Shop | - | 90.00 | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |

**TOTAL LABOR BEFORE APPLICABLE SALES TAX** **2.00** **$ 234.54**

| **Travel** | **Miles** | **Rate** | **Total** |
|---|---|---|---|
| XX trips at XXX miles per trip | - | $ 2.50 | - |
| Sales tax, if applicable | | 0.00% | - |

**TOTAL LABOR INCLUDING APPLICABLE SALES TAX** **$ 234.54**

**Notes:**

KOVACS CONSTRUCTION CORPORATION
321 Riggs Street
Oxford, CT 06478-1129
Phone: 203-743-4022
Fax: 203-790-1326

| | |
|---|---|
| **Contract number** | F-2820 |
| **Contract owner** | Town of Trumbull |
| **Description of change** | Beardsley P.S. Comprehensive Upgrade<br>20" MJ Pipe and Couplings- Spare Parts |
| **Date submitted** | 01/27/20 |

## EQUIPMENT CHARGES

| Line Number | Equipment Type | Equipment Hours | Equipment Rate | Extended Equipment |
|---|---|---|---|---|
| 1.00 | Excavator | 2.00 | 75.00 | 150.00 |
| 2.00 | | - | - | - |
| 3.00 | Bond Costs | 17,648.06 | 0.015 | 264.72 |
| 4.00 | | - | - | - |
| 5.00 | | - | - | - |
| 6.00 | | - | - | - |
| 7.00 | | - | - | - |
| 8.00 | | - | - | - |
| 9.00 | | - | - | - |
| 10.00 | | - | - | - |
| 11.00 | | - | - | - |
| 12.00 | | - | - | - |
| 13.00 | | - | - | - |
| 14.00 | | - | - | - |
| 15.00 | | - | - | - |
| 16.00 | | - | - | - |
| 17.00 | | - | - | - |
| 18.00 | | - | - | - |
| 19.00 | | - | - | - |
| 20.00 | | - | - | - |

| | | |
|---|---|---|
| **TOTAL EQUIPMENT BEFORE APPLICABLE SALES TAX** | | **$ 414.72** |
| Sales tax, if applicable | 0.00% | - |
| **TOTAL EQUIPMENT INCLUDING APPLICABLE SALES TAX** | | **$ 414.72** |

**Notes:**

KOVACS
CONSTRUCTION CORPORATION

March 23, 2020

Arcadis
44 South Broadway
PO Box 751
White Plains, NY 10602-0751

Attn: Vanessa McPherson
(914) 641-2418 phone
(914) 641-2404 fax

Re: Beardsley Pump Station Comprehensive Upgrade, Trumbull, CT
Instrumentation

Dear Vanessa:

Kovacs Construction Corporation is requesting a change order to modify the Mission Dialer I/O per alarm changes requested by the Town. The pricing is as follows:

| | |
|---|---|
| Knapp (Attached) | 1,585.00 |
| 5% GC P&O | 79.25 |
| Bonding Costs | 24.96 |
| Total this Proposed Change Order | $1,689.21 |

Very truly yours,

KOVACS CONSTRUCTION CORPORATION

*Wanda L. McGarry*

Wanda L. McGarry
Sales Manager

Enclosure

**GENERAL CONTRACTOR**
321 Riggs Street, Oxford, CT 06478
Tel: (203) 743-4022 • Fax: (203) 790-1326

KNAPP ENGINEERING
AUTOMATION AND CONTROL SYSTEMS
P.O. Box 7057 Prospect, CT 06712
(203) 758-3503 FAX (203) 758-0554

# INVOICE

| DATE | INVOICE # |
|---|---|
| 3/18/2020 | 202003-23 |

BILL TO:

Accounts Payable
KOVACS CONSTRUCTION CORP.
321 Riggs Street
Oxford, CT 06478

| P.O. NUMBER | TERMS | PROJECT |
|---|---|---|
| F-2820-4 | Net 30 | 180825 BEAR... |

| QUANTITY | DESCRIPTION | RATE | AMOUNT |
|---|---|---|---|
| | BEARDSLEY PUMP STATION-TRUMBULL | | |
| | Mission Dialer I/O changes contract modification request | | |
| | 3/12/20 | | |
| 2 | Design Changes | 115.00 | 230.00 |
| | 3/16/20 | | |
| 6 | Make wiring changes to mission inputs. Rewire components in PLC Panel and connect to mission control wiring. | 95.00 | 570.00 |
| 6 | Program changes for inputs to mission. Change OIT screens for removed alarms, Change scaling on Trend Screen. Added time control for high capacity pump exercise routine. | 115.00 | 690.00 |
| 1 | Update Drawings | 95.00 | 95.00 |
| | | **TOTAL** | $1,585.00 |

PRODUCT 13054G USE WITH 9308C ENVELOPE Deluxe Corporation 1-800-328-0304 or www.deluxe.com/shop PRINTED IN U.S.A. A

218 CA55CF TOXRX2 08/13/2019 13:53

FOR 2020 99

| ACCOUNTS FOR: 20 SEWER | | ORIGINAL APPROP | TRANFRS/ ADJSTMTS | REVISED BUDGET | YTD ACTUAL | ENCUMBRANCES | AVAILABLE BUDGET | PCT USED |
|---|---|---|---|---|---|---|---|---|
| 10 ENTERPRISE FUNDS | | | | | | | | |
| 20100000 SEWERS-ENTERPRISE | | | | | | | | |
| 20100000 410010 | ONE TIME PROJ M | 0 | 0 | 0 | -1,518.76 | .00 | 1,518.76 | 100.0% |
| 20100000 430000 | PROGRAM REVENUE | 0 | 0 | 0 | -47,500.00 | .00 | 47,500.00 | 100.0% |
| 20100000 440000 | FEE REVENUE | 0 | 0 | 0 | -50.00 | .00 | 50.00 | 100.0% |
| 20100000 440022 | SEWER USAGE FEE | 0 | 0 | 0 | -5,933,212.21 | .00 | 5,933,212.21 | 100.0% |
| 20100000 480002 | MISCELLANEOUS R | 0 | 0 | 0 | -1,567.00 | .00 | 1,567.00 | 100.0% |
| 20100000 501101 | SALARIES-FT/PER | 321,018 | 0 | 321,018 | 204,372.64 | .00 | 116,645.36 | 63.7% |
| 20100000 501103 | SALARIES-SEASON | 4,800 | 0 | 4,800 | 4,597.50 | .00 | 202.50 | 95.8% |
| 20100000 501105 | SALARIES-OVERTI | 20,000 | 0 | 20,000 | 3,056.52 | .00 | 16,943.48 | 15.3% |
| 20100000 501888 | UNIFORM ALLOWAN | 1,560 | 0 | 1,560 | 236.95 | .00 | 1,323.05 | 15.2% |
| 20100000 522201 | SERVICES & FEES | 1,750 | 0 | 1,750 | 39.80 | .00 | 1,710.20 | 2.3% |
| 20100000 522202 | SERVICES & FEES | 125,000 | 0 | 125,000 | 64,441.57 | 46,201.25 | 14,357.18 | 88.5% |
| 20100000 522204 | SERVICES & FEES | 6,608,885 | 0 | 6,608,885 | 4,452,623.75 | 1,842,032.78 | 314,228.47 | 95.2% |
| 20100000 522210 | REIMBURSABLE SE | 613,901 | 0 | 613,901 | 613,901.00 | .00 | .00 | 100.0% |
| 20100000 534402 | PROGRAM SUPPLIE | 18,000 | 0 | 18,000 | 4,830.59 | 5,285.12 | 7,884.29 | 56.2% |
| 20100000 545501 | COMMUNICATIONS- | 3,500 | 0 | 3,500 | 1,618.23 | .00 | 1,881.77 | 46.2% |
| 20100000 567701 | TRANSPORTATION- | 9,200 | 0 | 9,200 | 4,875.90 | .00 | 4,324.10 | 53.0% |
| 20100000 567702 | TRANSPORTATION- | 6,600 | 0 | 6,600 | 1,456.07 | .00 | 5,143.93 | 22.1% |
| 20100000 578801 | MNTNCE/REPAIR S | 45,000 | 0 | 45,000 | 11,957.77 | 4,122.74 | 28,919.49 | 35.7% |
| 20100000 578803 | MNTNCE/REP-PROG | 70,000 | 0 | 70,000 | 42,769.44 | 4,065.00 | 23,165.56 | 66.9% |
| 20100000 578805 | EXTRAORDIANRY I | 90,000 | 0 | 90,000 | 12,328.95 | .00 | 77,671.05 | 13.7% |
| 20100000 581888 | CAPITAL OUTLAY | 297,000 | 0 | 297,000 | 117,174.47 | 58,252.30 | 121,573.23 | 59.1% |
| 20100000 589901 | RENTALS-ANNUAL | 11,340 | 0 | 11,340 | 11,340.24 | .00 | -.24 | 100.0% |
| 20100000 590011 | UTILITIES-HEAT | 6,200 | 0 | 6,200 | 35,885.87 | .00 | -29,685.87 | 578.8% |
| 20100000 590012 | UTILITIES-ELECT | 168,363 | 0 | 168,363 | 135,128.41 | .00 | 33,234.59 | 80.3% |
| 20100000 590013 | UTILITIES-WATER | 2,459 | 0 | 2,459 | 1,868.31 | .00 | 590.69 | 76.0% |
| 20100000 590014 | UTILITIES-TELEP | 1,616 | 0 | 1,616 | 1,105.08 | .00 | 510.92 | 68.4% |
| 20100000 595888 | INTEREST ON G/O | 88,055 | 0 | 88,055 | 89,776.05 | .00 | -1,721.05 | 102.0% |
| 20100000 597888 | PRINCIPAL-G/OBL | 156,000 | 0 | 156,000 | 156,000.00 | .00 | .00 | 100.0% |
| TOTAL SEWERS-ENTERPRISE | | 8,670,247 | 0 | 8,670,247 | -12,462.86 | 1,959,959.19 | 6,722,750.67 | 22.5% |
| TOTAL ENTERPRISE FUNDS | | 8,670,247 | 0 | 8,670,247 | -12,462.86 | 1,959,959.19 | 6,722,750.67 | 22.5% |
| TOTAL SEWER | | 8,670,247 | 0 | 8,670,247 | -12,462.86 | 1,959,959.19 | 6,722,750.67 | 22.5% |
| | TOTAL REVENUES | 0 | 0 | 0 | -5,983,847.97 | .00 | 5,983,847.97 | |
| | TOTAL EXPENSES | 8,670,247 | 0 | 8,670,247 | 5,971,385.11 | 1,959,959.19 | 738,902.70 | |

FOR 2020 99

| | ORIGINAL APPROP | TRANFRS/ ADJSTMTS | REVISED BUDGET | YTD ACTUAL | ENCUMBRANCES | AVAILABLE BUDGET | PCT USED |
|---|---|---|---|---|---|---|---|
| GRAND TOTAL | 8,670,247 | 0 | 8,670,247 | -12,462.86 | 1,959,959.19 | 6,722,750.67 | 22.5% |

** END OF REPORT - Generated by Margaret Mastroni **

## REPORT OPTIONS

| | Field # | Total | Page Break |
|---|---|---|---|
| Sequence 1 | 1 | Y | Y |
| Sequence 2 | 2 | Y | N |
| Sequence 3 | 9 | Y | N |
| Sequence 4 | 0 | N | N |

Report title:
YEAR-TO-DATE BUDGET REPORT

Includes accounts exceeding 0% of budget.
Print totals only: N
Print Full or Short description: F
Print full GL account: N
Format type: 1
Double space: N
Suppress zero bal accts: Y
Include requisition amount: N
Print Revenues-Version headings: N
Print revenue as credit: Y
Print revenue budgets as zero: N
Include Fund Balance: N
Print journal detail: N
From Yr/Per: 2020/ 1
To Yr/Per: 2020/13
Include budget entries: Y
Incl encumb/liq entries: Y
Sort by JE # or PO #: J
Detail format option: 1
Include additional JE comments: N
Multiyear view: D
Amounts/totals exceed 999 million dollars: N

Year/Period: 2020/99
Print MTD Version: N

Roll projects to object: N
Carry forward code: 1

Find Criteria

| Field Name | Field Value |
|---|---|
| Org | 20100000 |
| Object | |
| Project | |
| Rollup code | |
| Account type | |
| Account status | |

WATER POLLUTION CONTROL AUTHORITY
for the City of Bridgeport
695 Seaview Avenue • Bridgeport, Connecticut 06607-1628
Telephone (203) 332-5550 • Fax (203) 576-7005

Lauren McBennett Mappa, P.E.
General Manager

# MEMORANDUM

**TO:** Town Clerk, Town of Trumbull, Ct

**FROM:** Lauren M. Mappa PE, General Manager

**DATE:** May 6, 2020

**SUBJECT:** City of Bridgeport Water Pollution Control Authority Proposed Fiscal 2021 Budget, Proposed Charges for the connection with and for the use of the City of Bridgeport Sewerage System and Public Hearing

==========

Attached is a copy of the City of Bridgeport Water Pollution Control Authority's proposed charges and Budget for Fiscal 2021 and the Proposed Charges for the connection with and use of the City of Bridgeport Sewerage System which we are filing at your office pursuant to Bridgeport City Ordinance, Section 13.04.220, and the Connecticut General Statutes, Section 7-255 prior to our scheduled public hearing on May 19, 2020. A copy of the public hearing notice is attached.

Attachments

BUDGET: 20 0506 Town Clerk-Trumbull CT-FISCAL 2021 PROPOSED BUDGET PUBLIC HEARING

# NOTICE

The Water Pollution Control Authority for the
City of Bridgeport will hold a Public Hearing
on May 19, 2020 at 5:00 P.M. pursuant to
Connecticut General Statutes, Section 7-255 and
Section 13.04.220 of the Bridgeport Code of
Ordinances to present the Proposed Budget for Fiscal 2021
with the projected revenue and expenses and proposed
charges for the connection with and for the use
of the City of Bridgeport sewerage system.

**Tuesday, May 19, 2020 at 5:00 P.M.**
**Comments can be sent to:**
**WPCA Board**
**695 Seaview Ave**
**Bridgeport Ct 06607**
**Must be received by 12 noon on May, 19 2020**

All owners of property against which the
charges are to be levied shall have an
opportunity to be heard in writing concerning the proposed
charges. A copy of the proposed charges will
be on file in the City Clerk's Office, City Hall,
45 Lyon Terrace, and Online at the WPCA website available for
inspection by the Public at least ten (10)
days before the date of the Public Hearing

# WATER POLLUTION CONTROL AUTHORITY

# FOR THE CITY OF BRIDGEPORT

## PROPOSED BUDGET

## FISCAL 2020/2021

JANUARY 10, 2020

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| CONTRACT OPERATOR COST | SCHEDULE B | 6 |
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# NOTICE

In accordance with Sub-Part 35.929-2 of the 40 CFR, Connecticut General Statutes, Section 7-255 and Section 13.04.220 of the Bridgeport Code of Ordinances the projected revenues and expenses for the Water Pollution Control Authority for the City of Bridgeport for Fiscal 2020-2021 are presented below.



WATER POLLUTION CONTROL AUTHORITY
FOR THE CITY OF BRIDGEPORT
FISCAL 2020-2021 PROPOSED BUDGET

| | PROPOSED FY 2021 BUDGET |
|---|---|
| REVENUES: | |
| BRIDGEPORT | $30,335,907 |
| OUTSIDE COMMUNITIES | 6,986,975 |
| INTEREST ON INVESTMENTS | 17,000 |
| SEPTIC TICKET REVENUE | 1,183,000 |
| OTHER REVENUE | 171,908 |
| BOND REVENUE-CAPITAL PROJECTS | 2,271,450 |
| ARREARAGE COLLECTIONS | 2,227,500 |
| TOTAL REVENUES | $43,193,739 |
| | |
| EXPENSES: | |
| OPERATIONS, MAINTENANCE & MANAGEMENT SERVICES AGREEMENT | $27,017,561 |
| UTILITIES | 2,615,000 |
| ADMINISTRATION | 2,055,853 |
| COLLECTION SYSTEM REHABILITATION | 1,404,330 |
| NITROGEN PAYMENT | 400,000 |
| CITY OVERHEAD COSTS | 475,000 |
| COLLECTION FEES | 300,000 |
| DEBT SERVICE-BONDS | 595,776 |
| STATE LOAN RESERVE FUNDING | 2,754,896 |
| EQUIPMENT & VEHICLES | 3,856,000 |
| BAD DEBT RESERVES | 1,469,323 |
| OPERATING RESERVE | 250,000 |
| TOTAL EXPENSES | $43,193,739 |

The approved usage fee and rates are as follows:

| | |
|---|---|
| Sewer Use Per Hundred Cubic Feet(CCF)or 748 Gallons | $6.124 |
| Industrial Biological Oxygen Demand Surcharge per Pound | $0.48 |
| Industrial Total Suspended Solids Surcharge per Pound | $0.43 |

Sewer Connection Permit Fee (New Connections):

| | |
|---|---|
| Sanitary-Single Family Dwelling | $125 |
| Sanitary-Multiple Family Dwelling(up to 4 units) | $200 |
| Sanitary-Multiple Family Dwelling(5 or more units) additional charge per unit over 4 | $50 |
| Sanitary-Commercial/Industrial Building | $275 |
| Storm Sewer(Residential per connection) | $125 |
| Storm Sewer(Commercial/Industurial per connection) | $275 |

| NEW A/C# | ACCOUNT DESCRIPTION | 2015/2016 ACTUAL | 2016/2017 ACTUAL | 2017/2018 ACTUAL | 2018/2019 MODIFIED BUDGET | 2018/2019 ESTIMATE | 2020/2021 PROPOSED BUDGET |
|---|---|---|---|---|---|---|---|
| DEPT. 400 - ADMINISTRATION | | | | | | | |
| 1000 | SALARIES | 655,082 | 560,291 | 608,314 | 732,892 | 605,840 | 767,084 |
| 1140 | LONGEVITY | 6,375 | 5,738 | 3,950 | 3,375 | 2,175 | 2,475 |
| 1108 | OVERTIME | 16,747 | 8,082 | 8,509 | 25,000 | 8,500 | 25,000 |
| 2000 | BENEFITS | 195,639 | 206,780 | 271,587 | 419,580 | 269,705 | 371,078 |
| 3605 | SEMINAR,CONF. FEES & MEMBERSHIPS | 1,149 | 804 | 420 | 2,300 | 2,070 | 2,300 |
| 3705 | ADVERTISING | 2,923 | 2,283 | 3,232 | 8,500 | 7,500 | 8,500 |
| 3720 | TELEPHONE | 2,528 | 2,515 | 1,938 | 3,500 | 2,550 | 3,500 |
| 3905 | REIMBURSED TRAVEL | 1,755 | 1,823 | 1,840 | 2,500 | 1,900 | 2,500 |
| 4020 | COMPUTER PARTS | 35 | 1,067 | 0 | 500 | 250 | 500 |
| 4555 | COMPUTER SUPPLIES | 441 | 1,182 | 0 | 1,600 | 1,200 | 1,600 |
| 4550 | COMPUTER SOFTWARE | 0 | 0 | 0 | 1,200 | 75 | 1,200 |
| 4610 | DIESEL FUEL | 37,618 | 41,936 | 47,425 | 120,000 | 47,000 | 120,000 |
| 4615 | GASOLINE FOR VEHICLES | 52,246 | 57,364 | 57,687 | 105,200 | 59,000 | 105,200 |
| 4675 | SUPPLIES-OFFICE | 2,381 | 1,895 | 2,914 | 3,000 | 1,950 | 3,000 |
| 4680 | PERMITS(NPDES) | 7,680 | 6,825 | 7,217 | 8,400 | 7,000 | 8,400 |
| 4705 | SUBSCRIPTIONS | 0 | 0 | 0 | 300 | 250 | 300 |
| 4725 | POSTAGE DIRECT | 0 | 376 | 0 | 2,500 | 1,500 | 2,500 |
| 4745 | SAFETY EQUIPMENT | 0 | 0 | 0 | 800 | 400 | 800 |
| 5055 | COMPUTER EQUIPMENT | 0 | 531 | 335 | 7,500 | 3,500 | 7,500 |
| 5150 | OFFICE EQUIPMENT | 120 | 394 | 750 | 750 | 370 | 750 |
| 5155 | EQUIPMENT RENTAL | 1,849 | 2,078 | 2,093 | 2,500 | 1,950 | 2,500 |
| 5530 | OFFICE FURNITURE | 0 | 1,342 | 1,365 | 3,750 | 500 | 3,750 |
| 6010 | ENGINEERING SERVICES | 236,099 | 220,970 | 262,423 | 400,000 | 540,000 | 400,000 |
| 6010 | MS4 WATER QUAILTY CONSULTANT | | | | 25,000 | | 25,000 |
| 6010 | COST OF SVC Study | | | | 35,000 | | 35,000 |
| 6055 | COMPUTER SERVICES | 500 | 106 | 1,077 | 3,500 | 500 | 3,500 |
| 6065 | COMMUMICATION EQUIP-M&R | 12,855 | 926 | 13,256 | 14,500 | 8,700 | 14,500 |
| 6100 | AUDIT FEES | 16,000 | 16,000 | 16,000 | 16,000 | 16,000 | 16,000 |
| 6110 | BILLING SERVICES | 4,541 | 15,951 | 0 | 3,400 | 3,400 | 3,400 |
| 6130 | LEGAL SERVICES | 218,649 | 218,421 | 55,715 | 275,000 | 100,000 | 175,000 |
| 6175 | M & R EQUIP.-OFFICE EQUIP | 1,350 | 1,818 | 2,037 | 2,250 | 1,560 | 2,250 |
| 6180 | OTHER SERVICES | 11,550 | 98,766 | 49,994 | 65,000 | 53,000 | 65,000 |
| 6200 | PRINTING-IN HOUSE | 1,370 | (890) | 684 | 2,000 | 432 | 2,000 |
| 6225 | SECURITY SERVICES | 3,234 | (3,974) | 3,389 | 3,400 | 3,400 | 3,400 |
| 7005 | CONTINGENCY | 0 | 78,100 | 87,489 | 100,000 | 100,000 | 100,000 |
| 8801 | GASOLINE& DIESEL/ RECOVERY | (89,864) | (99,300) | (105,112) | (225,200) | (106,000) | (225,200) |
| 8803 | M & R EQUIP. & SECURITY-RECOVERY | 0 | 0 | 0 | (8,934) | 0 | (8,934) |
| 9015 | PRINTING SERVICES | 1,278 | 0 | 140 | 4,500 | 3,500 | 4,500 |
| 2278 | WORKERS COMPENSATION | 0 | 0 | 0 | 0 | 3,000 | 0 |
| | TOTAL DEPT 400 | 1,402,128 | 1,450,199 | 1,406,668 | 2,171,063 | 1,752,677 | 2,055,853 |

| A/C # | ACCOUNT DESCRIPTION | 2015/2016 ACTUAL | 2016/2017 ACTUAL | 2017/2018 ACTUAL | 2018/2019 MODIFIED BUDGET | 2018/2019 ESTIMATE | 2020/2021 PROPOSED BUDGET |
|---|---|---|---|---|---|---|---|
| DEPT. 401- WPCA OTHER | | | | | | | |
| 4625 | NATURAL GAS | 90,420 | 87,518 | 113,045 | 140,000 | 97,000 | 140,000 |
| 3130 | ELECTRICITY | 2,449,963 | 2,385,094 | 2,133,596 | 2,375,000 | 2,525,000 | 2,475,000 |
| 3210 | DEBT SVC-INTEREST '09-CITY BONDS | 88,274 | 88,274 | 81,128 | 76,982 | 81,317 | 67,798 |
| 3205 | DEBT SVC- PRINCIPAL- '09 CITY BONDS | 76,800 | 76,800 | 81,317 | 84,028 | 81,128 | 89,901 |
| 3210 | DEBT SVC-INTEREST 2010-CITY BONDS | 12,137 | 12,137 | 11,198 | 10,640 | 11,198 | 9,365 |
| 3205 | DEBT SVC- PRINCIPAL- 2010 CITY BONDS | 18,815 | 18,815 | 19,690 | 20,237 | 19,690 | 21,549 |
| 3210 | DEBT SVC-INTEREST 2012-CITY BONDS | 68,516 | 68,516 | 62,628 | 59,461 | 62,628 | 52,639 |
| 3205 | DEBT SVC- PRINCIPAL- 2012 CITY BONDS | 57,452 | 57,452 | 63,324 | 66,548 | 63,324 | 73,341 |
| 3210 | DEBT SVC-INTEREST 2016-CITY BONDS | | | 48,509 | 39,419 | 48,507 | 37,854 |
| 3210 | DEBT SVC-PRINCIAL 2016-CITY BONDS | | | | | | 20,866 |
| 3210 | DEBT SVC-INTEREST 2017-CITY BONDS | | | | 40,211 | 0 | 39,506 |
| 3210 | DEBT SVC-PRINCIAL 2017-CITY BONDS | | | | | | 28,206 |
| 3210 | DEBT SVC-INTEREST 2018-CITY BONDS | | | | | | 42,500 |
| 3210 | DEBT SVC-PRINCIAL 2018-CITY BONDS | | | | | | 50,000 |
| 3210 | DEBT SVC-INTEREST 2019-CITY BONDS | | | | | | 62,250 |
| 3210 | DEBT SVC-PRINCIAL 2019-CITY BONDS | | | | | | 0 |
| 7950 | BAD DEBTS & ADJUSTMENTS | 366,225 | (37,384) | (254,900) | 1,557,589 | 1,600,000 | 1,469,323 |
| 3301 | CITY ADMIN. ALLOCATION | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 | 475,000 |
| 6060 | SEWER REHABILITATION | 1,040,755 | 620,664 | 1,404,330 | 1,404,330 | 1,450,000 | 1,404,330 |
| 4365 | COLLECTION EXPENSE | 316,423 | 321,343 | 300,000 | 300,000 | 322,000 | 300,000 |
| | STATE LOAN FUNDING RESERVE | 6,001,543 | 4,969,590 | 4,631,418 | 4,480,000 | 4,631,418 | 2,754,896 |
| | | | | | | 0 | |
| 4324 | OPERATIONS, MAINTENANCE | | | | | 0 | |
| | & MGT SERVICES AGREEMENT | 25,809,938 | 25,467,243 | 25,250,691 | 25,702,965 | 25,324,563 | 27,017,561 |
| 4324 | NITROGEN PAYMENT | | | 170,000 | 170,000 | 0 | 400,000 |
| 4324 | OPERATING RESERVES | 0 | 0 | 0 | 250,000 | 250,000 | 250,000 |
| 6170 | DESIGN | | | | 350,000 | 0 | 2,718,500 |
| 6170 | VEHICLES | 33,300 | 0 | 0 | 520,000 | 278,000 | 400,000 |
| 6170 | MS 4 MAPING | | | 57,500 | 250,000 | | 75,000 |
| 6170 | EQUIPMENT | 180,123 | 77,929 | 351,623 | 430,000 | 362,000 | 167,500 |
| 6170 | AIR SYSTEM | | | 143,500 | 150,000 | 125,000 | 145,000 |
| 6170 | EQUIPMENT M&R | 370,277 | 96,737 | 96,737 | 260,000 | 433,500 | 350,000 |
| | TOTAL DEPT 181-OTHER | 37,455,962 | 34,785,728 | 35,240,333 | 39,212,410 | 38,241,273 | 41,137,886 |
| | TOTAL EXPENSES | 38,858,090 | 36,235,927 | 36,647,001 | 41,383,473 | 39,993,950 | 43,193,739 |

**PERSONNEL SHEET** SCHEDULE A **5**

FISCAL 2021 PRELIMINARY BUDGET
SALARY AND BENEFITS
DIVISION: 180 ADMIN OFFICE
05/06/20

| POSITION | Job Code | UNION | PROJECTED ANNUAL SALARY | LONGEVITY | OVERTIME | BENEFITS | GRAND TOTAL |
|---|---|---|---|---|---|---|---|
| | | | G/L ACCT 56100 | G/L ACCT 51400 | G/L ACCT 51600 | G/L ACCT 52000 | |
| GENERAL MANAGER | | S | 154,936.80 | 0.00 | | 38,671.56 | 193,608.35 |
| DIRECTOR OF FINANCE | | S | 98,364.48 | 0.00 | | 10,446.31 | 108,810.79 |
| ACTING MGR TRMT& FIELD OPS | 8322 | S | 128,678.05 | 1,275.00 | | 47,430.77 | 177,383.82 |
| RESIDENT ENGINEER | | S | 40,575.60 | 0.00 | | 16,838.34 | 57,413.94 |
| CONSTRUCTION INSPEC | 8213 | S | 64,626.73 | 0.00 | | 36,259.84 | 100,886.57 |
| SUPERVISOR-CSO | 8308 | S | 26,719.57 | 0.00 | | 13,838.51 | 40,558.08 |
| CIVIL ENGINEER 1 | 2201 | S | 85,907.30 | 0.00 | | 16,792.25 | 102,699.54 |
| TYPIST 2 | 1233 | G | 46,169.20 | 0.00 | | 11,723.91 | 57,893.11 |
| ACCTG CLERK 2 | 1240 | G | 70,670.98 | 1,200.00 | | 37,987.21 | 109,858.18 |
| COLLECTION AIDE (Note 1) | 1248 | G | 50,434.89 | 0.00 | | 11,560.67 | 61,995.56 |
| NUMBER OF EMPLOYEES: | | 10 | | | | | |
| Sub-total | | | 767,083.58 | 2,475.00 | | 241,549.35 | 1,011,107.94 |
| OVERTIME: | | | | | 25,000.00 | | 25,000.00 |
| ADD'L BENEFITS ON BUDGETED OVERTIME | | | | | | | |
| MERF | 14.00% | | | | | 3,500.00 | 3,500.00 |
| MEDITAX | 1.45% | | | | | 362.50 | 362.50 |
| FICA TAX | 6.20% | | | | | 0.00 | 0.00 |
| Retirement medical | | | | | | 125,666.40 | 125,666.40 |
| | | | 767,083.58 | 2,475.00 | 25,000.00 | 371,078.25 | 1,165,636.84 |

Note 1: Works at City attorney's office

| | |
|---|---|
| Merf | 114,666.70 |
| Medicare | 11,485.21 |
| FICA | 4,172.30 |
| Life Ins | 579.60 |
| Health Ben | 240,174.44 |
| | 371,078.25 |

INFRAMARK
CONTRACT COSTS

FOR FISCAL 2021 BUDGET



SCHEDULE B

BASE ANNUAL CONTRACT AMOUNT: $27,267,561

FIRST CPI ADJUSMENT BASED ON PERCENT CHANGE IN CPI FROM STARTING DATE OF CONTRACT (December 31, 2013)
NEXT ADJUSTMENT BASED ON COMPARISON WITH CPI INDEX AS OF JUNE 30, 2019 VS JUNE 30, 2020
(MINIMUM CPI ADJSTMENT IS 2.5% PER CONTRACT YEAR)

| Budget Year | Time Period | Contract Year | Contract Amount | Prior Yr CPI Adjusted Contract Amount | Minimum CPI Rate Adj. | Annual CPI Dollar Adjustment | Contract Fee Budget Year Cost | Monthly Fee |
|---|---|---|---|---|---|---|---|---|
| 2014 | 01/01/14-6/30/14 | 1 | $11,459,683 | | | | $11,459,683 | $1,909,947.17 |
| 2015 | 07/01/14-6/30/15 | 2 | $22,919,366 | | 1.5980% | $366,251 | $23,285,617 | $1,940,468.12 |
| 2016 | 7/01/15-6/30/16 | 3 | | $23,285,617 | 2.5000% | $582,140 | $23,867,758 | $1,988,979.83 |
| 2017 | 7/1/16-6/30/17 | 4 | | $23,867,758 | 2.5000% | $596,694 | $24,464,452 | $2,038,704.32 |
| 2018 | 7/1/17-6/30/18 | 5 | | $24,464,452 | 2.5000% | $611,611 | $25,076,063 | $2,089,671.93 |
| 2019 | 7/1/18-6/30/19 | 6 | | $25,076,063 | 2.5508% | $639,640 | $25,715,703 | $2,142,975.28 |
| 2020 | 7/1/19-6/30/20 | 7 | | $25,715,703 | 2.5000% | $642,893 | $26,358,596 | $2,196,549.66 |
| 2021 | 7/1/20-6/30/21 | 8 | | $26,358,596 | 2.5000% | $658,965 | $27,017,561 | $2,251,463.40 |

| | |
|---|---|
| Contract fee for Fiscal 2021 | $27,017,561 |
| Additional chemcial cost for Fiscal 2021 | $250,000 |
| Total Contract cost for Fiscal 2021 | $27,267,561 |

NORTHEAST URBAN
ALL ITEMS NOT SEASONALLY ADJUSTED
CPI SERIES: cuur0100sa0

CPI STARTING POINT

| INDEX DATE | CPI | INDEX CHANGE VS 12/31/2013 | CPI PERCENT CHANGE VS 12/31/2013 | CPI PERCENT CHANGE USED FOR FEE ADJ EFFECTIVE |
|---|---|---|---|---|
| Dec 31, 2013 | 249.567 | | | |
| June 30, 2014 | 253.555 | 3.988 | 1.5980% | 7/1/2014 |
| June 30, 2015 | 253.626 | 0.071 | 0.0280% | 7/1/2015 |
| June 30, 2016 | 255.471 | 1.845 | 0.7274% | 7/1/2016 |
| June 30, 2017 | 259.335 | 3.864 | 1.5125% | 7/1/2017 |
| June 30, 2018 | 265.950 | 6.615 | 2.5508% | 7/1/2018 |
| June 30, 2019 | 270.133 | 4.183 | 1.5729% | 7/1/2019 |

| INDEX DATE | CPI | Vs 6/30/20 | Vs 6/30/19 |
|---|---|---|---|
| Nov 30, 2019 | 270.643 | 0.5100 | 0.1888% |

1/9/2020
skw

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS

SPENDING AND SOURCE OF FUNDING

SCHEDULE C

7

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TREATMENT FACILITIES** | | | | | | | | | | | |
| CONTRACT 1 WEST SIDE TP REHAB | | | | | | | | | | | |
| DESIGN: CWF 164D | | | | | | | | | | | |
| LOANS | 2,528,323 | | | | | | | | | | 2,528,323 |
| GRANTS | 171,467 | | | | | | | | | | 171,467 |
| | 2,699,790 | | | | | | | | | | 2,699,790 |
| CONSTRUCTION: CWF218C | | | | | | | | | | | |
| LOANS | 34,256,604 | | | | | | | | | | 34,256,604 |
| GRANTS | 9,405,545 | | | | | | | | | | 9,405,545 |
| | 43,662,149 | | | | | | | | | | 43,662,149 |
| CONTRACT 2 EAST SIDE TP REHAB | | | | | | | | | | | |
| DESIGN:CWF 206D | | | | | | | | | | | |
| LOANS | 2,810,440 | | | | | | | | | | 2,810,440 |
| GRANTS | 181,783 | | | | | | | | | | 181,783 |
| | 2,992,223 | | | | | | | | | | 2,992,223 |
| CONSTRUCTION: CWF206C | | | | | | | | | | | |
| LOANS | 32,033,046 | | | | | | | | | | 32,033,046 |
| GRANTS | 12,500,440 | | | | | | | | | | 12,500,440 |
| | 44,533,486 | | | | | | | | | | 44,533,486 |
| CONTRACT 6 WEST & EAST TF CHLORINATION PROJECT | | | | | | | | | | | |
| DESIGN: CWF 164D | | | | | | | | | | | |
| LOANS | 214,632 | | | | | | | | | | 214,632 |
| GRANTS | 43,961 | | | | | | | | | | 43,961 |
| | 258,593 | | | | | | | | | | 258,593 |
| CONSTRUCTION: CWF 164C | | | | | | | | | | | |
| LOANS | 2,193,820 | | | | | | | | | | 2,193,820 |
| GRANTS | 422,669 | | | | | | | | | | 422,669 |
| | 2,616,489 | | | | | | | | | | 2,616,489 |
| NITROGEN FACILITY PLAN | | | | | | | | | | | |
| LOCAL SHARE | 301,360 | | | | | | | | | | 301,360 |
| GRANTS 416PG | 382,051 | | | | | | | | | | 382,051 |
| | 683,411 | | | | | | | | | | 683,411 |
| BNR FACILITIES-WEST AND EAST SIDE WWTF CWF 416C DESIGN AND CONSTRUCTION | | | | | | | | | | | |
| LOCAL SHARE | 143,623 | | | | | | | | | | 143,623 |
| LOANS | 3,383,986 | | | | | | | | | | 3,383,986 |
| GRANTS | 1,376,309 | | | | | | | | | | 1,376,309 |
| | 4,903,918 | | | | | | | | | | 4,903,918 |

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS

SPENDING AND SOURCE OF FUNDING SCHEDULE C

8

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DECHLORINATION PROJECT | | | | | | | | | | | |
| WEST SIDE TF: | | | | | | | | | | | |
| DESIGN | | | | | | | | | | | |
| LOAN | 81,673 | | | | | | | | | | 81,673 |
| GRANT | 20,418 | | | | | | | | | | 20,418 |
| CONSTRUCTION- CWF572C | | | | | | | | | | | |
| LOAN | 541,755 | | | | | | | | | | 541,755 |
| GRANT | 133,674 | | | | | | | | | | 133,674 |
| TOTAL WEST SIDE | 777,520 | | | | | | | | | | 777,520 |
| EAST SIDE TF: | | | | | | | | | | | |
| DESIGN &CONSTRUCTION-CWF 613C | | | | | | | | | | | |
| LOAN | 960,201 | | | | | | | | | | 960,201 |
| GRANT | 235,268 | | | | | | | | | | 235,268 |
| TOTAL EAST SIDE | 1,195,469 | | | | | | | | | | 1,195,469 |
| LOW LEVEL NITROGEN AND SLUDGE PROCESSING PLAN CWF 205PG | | | | | | | | | | | |
| GRANT | 388,212 | 4,683 | | | | | | | | | 392,895 |
| LOCAL SHARE | 321,480 | 6,832 | | | | | | | | | 328,312 |
| | 709,692 | 11,515 | | | | | | | | | 721,207 |
| GENERATOR REHABILITATION-EAST & WEST TREATMENT PLANTS | | | | | | | | | | | |
| CWF658C | | | | | | | | | | | |
| LOAN | 325,921 | | | | | | | | | | 325,921 |
| GRANT | 77,999 | | | | | | | | | | 77,999 |
| | 403,920 | | | | | | | | | | 403,920 |

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS
SPENDING AND SOURCE OF FUNDING

SCHEDULE C

9

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FACILITIES PLAN FOR WSTP & ESTP | | | | | | | | | | | |
| LOCAL SHARE | | 601,114 | 601,114 | | | | | | | | 1,202,229 |
| LOAN | | | | | | | | | | | 0 |
| GRANT | | 734,695 | 734,695 | | | | | | | | 1,469,391 |
| | | 1,335,810 | 1,335,810 | | | | | | | | 2,671,619 |
| SLUDGE PROCESSING-DESIGN EAST & WEST TREATMENT PLANTS | | | | | | | | | | | |
| LOAN | | 400,000 | 400,000 | 800,000 | | | | | | | 1,600,000 |
| GRANT | | 100,000 | 100,000 | 200,000 | | | | | | | 400,000 |
| | | 500,000 | 500,000 | 1,000,000 | | | | | | | 2,000,000 |
| LOW LEVEL NITROGEN AND SLUDGE PROCESSING-CONSTRUCTION WEST TREATMENT PLANTS | | | | | | | | | | | |
| LOAN | | | | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 52,500,000 |
| GRANT | | | | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 17,500,000 |
| | | | | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 70,000,000 |
| LOW LEVEL NITROGEN AND SLUDGE PROCESSING-CONSTRUCTION EAST TREATMENT PLANTS | | | | | | | | | | | |
| LOAN | | | | | | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 37,500,000 |
| GRANT | | | | | | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 12,500,000 |
| | | | | | | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 10,000,000 | 50,000,000 |
| TOTAL TREATMENT FACILITIES | | | | | | | | | | | |
| LOAN | 79,631,761 | 400,000 | 400,000 | 8,300,000 | 7,500,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 15,000,000 | 171,231,761 |
| GRANT | 25,339,796 | 839,378 | 834,695 | 2,700,000 | 2,500,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 57,213,869 |
| LOCAL SHARE | 766,463 | 607,946 | 601,114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,975,524 |
| | 105,738,020 | 1,847,325 | 1,835,810 | 11,000,000 | 10,000,000 | 20,000,000 | 20,000,000 | 20,000,000 | 20,000,000 | 20,000,000 | 230,421,154 |

| | ACTUAL SPENDING AS OF 6/18 | FY 2019 ESTIMATE | F/Y 2020 BUDGET | F/Y '21 LTP | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CSO PROJECTS | | | | | | | | | | | |
| MCSO A,B,C, & D: CWF 109C-CD2 | | | | | | | | | | | |
| LOANS | 3,040,718 | | | | | | | | | | 3,040,718 |
| GRANTS | 6,635,053 | | | | | | | | | | 6,635,053 |
| | 9,675,771 | | | | | | | | | | 9,675,771 |
| JOHNSON CREEK CSO E DESIGN CWF 208D | | | | | | | | | | | |
| LOANS | 136,000 | | | | | | | | | | 136,000 |
| GRANTS | 127,000 | | | | | | | | | | 127,000 |
| | 263,000 | | | | | | | | | | 263,000 |
| CONSTRUCTION CWF 208C | | | | | | | | | | | |
| LOANS | 3,889,833 | | | | | | | | | | 3,889,833 |
| GRANTS | 3,789,832 | | | | | | | | | | 3,789,832 |
| | 7,679,665 | | | | | | | | | | 7,679,665 |
| YELLOW MILL CHANNEL & HARBORPOINTE CSO F CWF208D | | | | | | | | | | | |
| DESIGN: | | | | | | | | | | | |
| LOANS | 570,147 | | | | | | | | | | 570,147 |
| GRANTS | 554,136 | | | | | | | | | | 554,136 |
| | 1,124,283 | | | | | | | | | | 1,124,283 |
| CONSTRUCTION: CWF372C CSO F1,F2,F3 & F4 | | | | | | | | | | | |
| LOANS | 5,719,151 | | | | | | | | | | 5,719,151 |
| GRANTS | 5,034,152 | | | | | | | | | | 5,034,152 |
| | 10,753,303 | | | | | | | | | | 10,753,303 |

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS
SPENDING AND SOURCE OF FUNDING
SCHEDULE C

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | 10 TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CSO FACILITY PLAN UPDATE | | | | | | | | | | | |
| LOCAL SHARE | 385,354 | | | | | | | | | | 385,354 |
| GRANTS CWF 283PG | 472,524 | | | | | | | | | | 472,524 |
| | 857,878 | | | | | | | | | | 857,878 |
| BRIDGEPORT HARBOR | | | | | | | | | | | |
| CSO G CWF 409D | | | | | | | | | | | |
| LOANS | 518,492 | | | | | | | | | | 518,492 |
| GRANTS | 514,632 | | | | | | | | | | 514,632 |
| | 1,033,124 | | | | | | | | | | 1,033,124 |
| PUMP STATION FACILITY REPORT | | | | | | | | | | | |
| CSO RELATED CWF 409D | | | | | | | | | | | |
| LOANS | 92,793 | | | | | | | | | | 92,793 |
| GRANTS | 92,793 | | | | | | | | | | 92,793 |
| | 185,586 | | | | | | | | | | 185,586 |
| CSO G-1 CWF 409C-CONSTRUCTION | | | | | | | | | | | |
| LOANS | 1,911,688 | | | | | | | | | | 1,911,688 |
| GRANTS | 1,886,688 | | | | | | | | | | 1,886,688 |
| | 3,798,376 | | | | | | | | | | 3,798,376 |
| CSO G-2 CONSTRUCTION 575C | | | | | | | | | | | |
| LOANS | 2,319,591 | | | | | | | | | | 2,319,591 |
| GRANTS | 2,058,725 | | | | | | | | | | 2,058,725 |
| | 4,378,316 | | | | | | | | | | 4,378,316 |
| CSO G-4-CONSTRUCTION 452C | | | | | | | | | | | |
| LOANS | 1,781,687 | | | | | | | | | | 1,781,687 |
| GRANTS | 1,771,185 | | | | | | | | | | 1,771,185 |
| | 3,552,872 | | | | | | | | | | 3,552,872 |
| CSO G-3 & G-5 CWF 452C (REPLACE RIVER ST PUMP STATION) CONSTRUCTION | | | | | | | | | | | |
| LOANS | 4,818,830 | | | | | | | | | | 4,818,830 |
| GRANTS | 4,634,346 | | | | | | | | | | 4,634,346 |
| | 9,453,176 | | | | | | | | | | 9,453,176 |
| LONG TERM CONTROL PLAN | | | | | | | | | | | |
| GRANTS CWF 205PG | 692,950 | 7,319 | | | | | | | | | 700,269 |
| LOCAL SHARE | 605,452 | 5,988 | | | | | | | | | 611,440 |
| | 1,298,402 | 13,307 | | | | | | | | | 1,311,709 |

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS

SPENDING AND SOURCE OF FUNDING

SCHEDULE C

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | 11 TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CSO H | | | | | | | | | | | |
| DESIGN CWF 621D | | | | | | | | | | | |
| LOANS | 1,260,771 | | | | | | | | | | 1,260,771 |
| GRANTS | 1,236,439 | | | | | | | | | | 1,236,439 |
| | 2,497,210 | | | | | | | | | | 2,497,210 |
| CSO H | | | | | | | | | | | |
| CONSTRUCTION CWF 621C (H-1 &H-2) | | | | | | | | | | | |
| LOANS | 3,956,483 | | | | | | | | | | 3,956,483 |
| GRANTS | 3,933,371 | | | | | | | | | | 3,933,371 |
| | 7,889,854 | | | | | | | | | | 7,889,854 |
| CSO H | | | | | | | | | | | |
| CONSTRUCTION CWF 628C | | | | | | | | | | | |
| LOANS | 7,456,209 | | | | | | | | | | 7,456,209 |
| GRANTS | 7,438,197 | | | | | | | | | | 7,438,197 |
| | 14,894,406 | | | | | | | | | | 14,894,406 |
| CSO H | | | | | | | | | | | |
| CONSTRUCTION CWF 681C | | | | | | | | | | | |
| LOANS | 1,561,171 | | | | | | | | | | 1,561,171 |
| GRANTS | 1,545,120 | | | | | | | | | | 1,545,120 |
| | 3,106,291 | | | | | | | | | | 3,106,291 |
| CSO H | | | | | | | | | | | |
| CONSTRUCTION CWF 706D/C | | | | | | | | | | | |
| LOANS | 1,963,076 | 1,812,578 | | | | | | | | | 3,775,654 |
| GRANTS | 1,963,078 | 1,797,575 | | | | | | | | | 3,760,653 |
| | 3,926,154 | 3,610,153 | | | | | | | | | 7,536,307 |
| CSO H 3 | | | | | | | | | | | |
| CONSTRUCTION CWF | | | | | | | | | | | |
| LOANS | | 913,700 | 913,700 | | | | | | | | 1,827,400 |
| GRANTS | | 913,700 | 913,700 | | | | | | | | 1,827,400 |
| | | 1,827,400 | 1,827,400 | | | | | | | | 3,654,800 |
| CSO H 5 | | | | | | | | | | | |
| CONSTRUCTION CWF | | | | | | | | | | | |
| LOANS | | | | | | | 1,750,000 | 1,750,000 | | | 3,500,000 |
| GRANTS | | | | | | | 1,750,000 | 1,750,000 | | | 3,500,000 |
| | | | | | | | 3,500,000 | 3,500,000 | | | 7,000,000 |
| CSO H 6 | | | | | | | | | | | |
| CONSTRUCTION CWF | | | | | | | | | | | |
| LOANS | | | | | | | | | 1,750,000 | 1,750,000 | 3,500,000 |
| GRANTS | | | | | | | | | 1,750,000 | 1,750,000 | 3,500,000 |
| | | | | | | | | | 3,500,000 | 3,500,000 | 7,000,000 |
| CSO PROJECTS- LONG TERM CONTROL PLAN | | | | | | | | | | | |
| STAGE 1- PLANNING(ASH CREEK) | | | | | | | | | | | |
| LOCAL SHARE | | 157,500 | 157,500 | | | | | | | | 315,000 |
| LOANS | | | | | | | | | | | |
| GRANTS | | 192,500 | 192,500 | | | | | | | | 385,000 |
| DESIGN & CONSTRUCTION | | | | | | | | | | | |
| STAGE 1- DESIGN(ASH CREEK) | | | | | | | | | | | |
| LOANS | | | | 1,500,000 | 1,500,000 | | | | | | 3,000,000 |
| GRANTS | | | | 1,500,000 | 1,500,000 | | | | | | 3,000,000 |
| STAGE 1- CONSTRUCTION | | | | | | | | | | | |
| LOANS | | | | 250,000 | 3,500,000 | 3,500,000 | | | | | 7,250,000 |
| GRANTS | | | | 250,000 | 3,500,000 | 3,500,000 | | | | | 7,250,000 |
| STAGE 2-WQT | | | | | | | | | | | |
| LOANS | | | | | | 350,000 | | | | | 350,000 |
| GRANTS | | | | | | 350,000 | | | | | 350,000 |

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS

SPENDING AND SOURCE OF FUNDING

SCHEDULE C

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | 12 TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| STAGE 2- CONSTRUCTION | | | | | | | | | | | |
| LOANS | | | | | | | | | | | |
| GRANTS | | | | | | | | | | | |
| STAGE 3-CEDAR CREEK& WQT | | | | | | | | | | | |
| LOANS | | | | | 250,000 | 1,250,000 | | | | | 1,500,000 |
| GRANTS | | | | | 250,000 | 1,250,000 | | | | | 1,500,000 |
| STAGE 3- CONSTRUCTION | | | | | | | | | | | |
| LOANS | | | | | | 250,000 | 1,500,000 | | | | 1,750,000 |
| GRANTS | | | | | | 250,000 | 1,500,000 | | | | 1,750,000 |
| STAGE 3-DESIGN-ASH CREEK STORAGE | | | | | | | | | | | |
| LOANS | | | | | | | 350,000 | | | | 350,000 |
| GRANTS | | | | | | | 350,000 | | | | 350,000 |
| STAGE 4-DESIGN -RELIEF INTERCEPTOR | | | | | | | | | | | |
| LOANS | | | | | | 250,000 | 1,500,000 | | | | 1,750,000 |
| GRANTS | | | | | | 250,000 | 1,500,000 | | | | 1,750,000 |
| TOTAL LT CONTROL PLAN -LOCAL SHARE | | 157,500 | 157,500 | | | | | | | | 157,500 |
| TOTAL LT CONTROL PLAN -LOANS | | 0 | 0 | 1,750,000 | 5,250,000 | 5,600,000 | 3,350,000 | | | | 15,950,000 |
| TOTAL LT CONTROL PLAN- GRANTS | | 192,500 | 192,500 | 1,750,000 | 5,250,000 | 5,600,000 | 3,350,000 | | | | 15,950,000 |
| TOTAL LT CONTROL PLAN | | 192,500 | 192,500 | 3,500,000 | 10,500,000 | 11,200,000 | 6,700,000 | | | | 32,057,500 |
| INFLOW AND INFILTRATION | | | | | | | | | | | |
| PIPE LINING-CWF 559C | | | | | | | | | | | |
| LOANS | 1,236,190 | | | | | | | | | | 1,236,190 |
| GRANTS | 304,850 | | | | | | | | | | 304,850 |
| | 1,541,040 | | | | | | | | | | 1,541,040 |
| **TOTAL CSO PROJECTS** | | | | | | | | | | | |
| LOCAL SHARE | 990,806 | 163,488 | 157,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,311,794 |
| LOANS | 42,232,830 | 2,726,278 | 913,700 | 1,750,000 | 5,250,000 | 5,600,000 | 5,100,000 | 1,750,000 | 1,750,000 | 1,750,000 | 68,822,808 |
| GRANTS | 44,685,071 | 2,911,094 | 1,106,200 | 1,750,000 | 5,250,000 | 5,600,000 | 5,100,000 | 1,750,000 | 1,750,000 | 1,750,000 | 71,652,365 |
| | 87,908,707 | 5,800,860 | 2,177,400 | 3,500,000 | 10,500,000 | 11,200,000 | 10,200,000 | 3,500,000 | 3,500,000 | 3,500,000 | 141,786,967 |

MAJOR CONSTRUCTION AND REHABILITATION PROJECTS
SPENDING AND SOURCE OF FUNDING SCHEDULE C

| | ACTUAL SPENDING AS OF 6/19 | FY 2020 ESTIMATE | F/Y 2021 BUDGET | F/Y '22 LTP | F/Y '23 LTP | F/Y '24 LTP | F/Y '25 LTP | F/Y '26 LTP | F/Y '27 LTP | F/Y '28 LTP | 13 TOTAL PROJECT COSTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **INFLOW AND INFILTRATION MITIGATION- NON CSO** | | | | | | | | | | | |
| PIPE LINING- CWF 625CSL | | | | | | | | | | | |
| LOANS | 1,672,257 | | | | | | | | | | 1,672,257 |
| LOCAL SHARE | 153,686 | | | | | | | | | | 153,686 |
| TOTAL | 1,825,943 | | | | | | | | | | 1,825,943 |
| **PUMP STATION & SIPHONS** | | | | | | | | | | | |
| DESIGN CWF 102CSL | | | | | | | | | | | |
| LOANS | 428,000 | | | | | | | | | | 428,000 |
| CONSTRUCTION CWF102CSL | | | | | | | | | | | |
| PHASE 1 | | | | | | | | | | | |
| LOANS | 4,180,318 | | | | | | | | | | 4,180,318 |
| PHASE 2 & 3 | | | | | | | | | | | |
| LOCAL SHARE (BOND FUNDS) | | | | | | | | | | | |
| LAKE FOREST BCH & SEQUOIA RD | 824,570 | | | | | | | | | | 824,570 |
| CWF 213CSL LOANS | | | | | | | | | | | |
| WALLER RD & LAKESIDE DR | 3,115,301 | 0 | | | | | | | | | 3,115,301 |
| **TOTAL PUMP STATIONS** | | | | | | | | | | | |
| LOANS-CWF | 7,723,619 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,723,619 |
| LOCAL SHARE(BONDS) | 824,570 | | | | | | | | | | 824,570 |
| | 8,548,189 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8,548,189 |
| TOTAL LOCAL SHARE | 2,735,525 | 771,434 | 758,614 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4,265,574 |
| TOTAL LOANS | 131,260,467 | 3,126,278 | 1,313,700 | 10,050,000 | 12,750,000 | 20,600,000 | 20,100,000 | 16,750,000 | 16,750,000 | 16,750,000 | 249,450,445 |
| TOTAL GRANTS | 70,024,867 | 3,750,472 | 1,940,895 | 4,450,000 | 7,750,000 | 10,600,000 | 10,100,000 | 6,750,000 | 6,750,000 | 6,750,000 | 128,866,235 |
| TOTALS-ALL PROJECTS | 204,020,859 | 7,648,185 | 4,013,210 | 14,500,000 | 20,500,000 | 31,200,000 | 30,200,000 | 23,500,000 | 23,500,000 | 23,500,000 | 382,582,253 |

WATER POLLUTION CONTROL AUTRHORITY SCHEDULE D 14
RESERVE FOR CAPITAL IMPROVEMENTS
(STATE CLEAN WATER FUND LOAN RETIREMENT FUNDING)

| | ORIGINAL BORROWINGS | FY 16-17 | FY 17-18 | FY 18-19 | FY 19-20 | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 |
|---|---|---|---|---|---|---|---|---|---|
| OMPLETED PROJECTS | | | | | | | | | |
| PRINCIPAL PAYMENTS: | | | | | | | | | |
| ONTRACT 1 CWF 218C | 34,259,604 | 115,685 | | | | | | | |
| ONTRACT 2 CWF 206D | 2,810,440 | | | | | | | | |
| ONTRACT 2 CWF 206C | 32,033,046 | 1,601,652 | 1,601,652 | 1,601,652 | 1,601,652 | 64,806 | | | |
| ONTRACT 6 CWF 164C | 2,193,820 | | | | | | | | |
| NR FACILITIES CWF 416D/C | 3,384,911 | 169,246 | 169,246 | 169,246 | 169,246 | 169,246 | 169,246 | 169,246 | 13,180 |
| ECHLOR PROJECT CWF 572C | 624,067 | 31,203 | 31,203 | 31,203 | 31,203 | 31,203 | 31,203 | 31,203 | 31,203 |
| CSO E JOHNSON CREEK CWF208D | 706,147 | | | | | | | | |
| CSO E JOHNSON CREEK CWF208C | 3,889,833 | 152,385 | | | | | | | |
| CSO F-1,2,3 &4 CWF372C | 5,719,151 | 309,655 | 309,655 | 154,828 | | | | | |
| CSO G BPT HARBOR CWF409D | 611,285 | 30,564 | 30,564 | 30,564 | 30,564 | 30,564 | 30,564 | 20,489 | |
| CSO G BPT HARBOR CWF409C | 1,911,688 | 95,584 | 95,584 | 95,584 | 95,584 | 95,584 | 95,584 | 95,584 | 95,584 |
| FLOW AND INFILTRATION CWF 559C | 1,236,190 | 63,394 | 63,394 | 63,394 | 63,394 | 63,394 | 63,394 | 63,394 | 63,394 |
| CSO G-1 &2 CWF 575C | 2,323,913 | 116,196 | 116,196 | 116,196 | 116,196 | 116,196 | 116,196 | 116,196 | 116,196 |
| JMP STATIONS CWF 102CSL | 4,608,318 | 230,416 | 230,416 | 230,416 | 230,416 | 230,416 | 230,416 | 230,416 | 230,416 |
| FLOW AND INFILT'N CWF 625CSL | 1,672,257 | 83,613 | 83,613 | 83,613 | 83,613 | 83,613 | 83,613 | 83,613 | 83,613 |
| AST SIDE DECHLOR 613C | 958,789 | 48,010 | 48,010 | 48,010 | 48,010 | 48,010 | 48,010 | 48,010 | 48,010 |
| SO H DESIGN CWF 621D | 1,260,771 | 72,044 | 72,044 | 72,044 | 72,044 | 72,044 | 72,044 | 72,044 | 72,044 |
| SO G3&G5 RIVER ST PS CWF452C2 | 6,824,081 | 419,943 | 419,943 | 419,943 | 419,943 | 419,943 | 419,943 | 419,943 | 419,943 |
| JMP STATIONS CWF 213CSL | 3,115,301 | 159,759 | 159,759 | 159,759 | 159,759 | 159,759 | 159,759 | 159,759 | 159,759 |
| SO 621C | 3,959,483 | 239,787 | 239,787 | 239,787 | 239,787 | 239,787 | 239,787 | 239,787 | 239,787 |
| ENERATOR REHAB 658C | 352,921 | 16,643 | 16,643 | 16,643 | 16,643 | 16,643 | 16,643 | 16,643 | 16,643 |
| EWER REHAB 628C | 3,956,483 | | 372,810 | 372,810 | 372,810 | 372,810 | 372,810 | 372,810 | 372,810 |
| SO WORK 681C | 1,561,171 | | | | 80,060 | 80,060 | 80,060 | 80,060 | 80,060 |
| TOTAL BORROWINGS AND PRINCIPAL PAYMENTS | 119,973,670 | 3,955,780 | 4,060,521 | 3,905,693 | 3,830,925 | 2,294,079 | 2,229,273 | 2,219,197 | 2,042,643 |
| EBT SERVICE FUNDING-ACTIVE PROJECTS (SEE SCHEDULE F) | | 60,099 | 17,599 | 84,136 | 136,186 | 136,186 | 136,186 | 136,186 | 136,186 |
| OMPLETED PROJECTS | | | | | | | | | |
| NTEREST PAYMENTS: | | | | | | | | | |
| ONTRACT 1 CWF 218C | | 238 | | | | | | | |
| ONTRACT 2 CWF 206D | | | | | | | | | |
| ONTRACT 2 CWF 206C | | 116,120 | 84,087 | 52,054 | 20,021 | 337 | | | |
| ONTRACT 6 CWF 164C | | | | | | | | | |
| IR FACILITIES CWF 416D/C | | 22,707 | 19,322 | 15,937 | 12,552 | 9,167 | 5,783 | 1,904 | 1,692 |
| ECHLOR PROJECT CWF 572C | | 5,747 | 5,123 | 4,498 | 3,874 | 3,250 | 2,626 | 1,521 | 1,326 |
| CSO E JOHNSON CREEK CWF208D | | | | | | | | | |
| CSO E JOHNSON CREEK CWF208C | | 1,799 | | | | | | | |
| CSO F-1,2,3 &4 CWF372C | | 12,644 | 6,451 | 903 | 0 | 0 | 0 | | |
| CSO G BPT HARBOR CWF409D | | 3,897 | 3,286 | 2,674 | 2,063 | 1,452 | 841 | 238 | |
| CSO G BPT HARBOR CWF409C | | 18,400 | 16,488 | 14,577 | 12,665 | 10,753 | 8,842 | 6,930 | 5,018 |
| FLOW AND INFILTRATION CWF 559C | | 10,830 | 9,562 | 8,294 | 7,026 | 5,758 | 4,490 | 3,223 | 1,955 |
| CSO G-1 &2 CWF 575C | | 26,241 | 23,917 | 21,593 | 19,269 | 16,945 | 14,621 | 12,297 | 9,973 |
| JMP STATIONS CWF 102CSL | | 56,260 | 51,652 | 47,043 | 42,435 | 37,827 | 33,218 | 28,610 | 24,002 |
| FLOW AND INFILT'N CWF 625CSL | | 21,948 | 20,276 | 18,604 | 16,932 | 15,259 | 13,587 | 11,915 | 10,243 |
| AST SIDE DECHLOR 613C | | 13,403 | 12,443 | 11,482 | 10,522 | 9,562 | 8,602 | 7,642 | 6,681 |
| SO H DESIGN CWF 621D | | 20,232 | 18,792 | 17,351 | 15,910 | 14,469 | 13,028 | 11,587 | 10,146 |
| SO G3&G5 RIVER ST PS CWF452C2 | | 113,035 | 104,636 | 96,237 | 87,838 | 79,439 | 71,040 | 62,642 | 54,243 |
| JMP STATIONS CWF 213CSL | | 58,179 | 54,984 | 51,789 | 48,593 | 45,398 | 42,203 | 39,008 | 35,813 |
| SO 621C | | 74,933 | 70,138 | 65,342 | 60,546 | 55,750 | 50,955 | 46,159 | 41,363 |
| ENERATOR REHAB 658C | | 6,199 | 5,867 | 5,534 | 5,201 | 4,868 | 4,535 | 4,202 | 3,870 |
| EWER REHAB 628C | | | 144,464 | 137,008 | 129,552 | 122,095 | 114,639 | 107,183 | 99,727 |
| SO WORK 681C | | | | | 30,089 | 28,488 | 26,887 | 25,286 | 30,089 |
| TOTAL INTEREST PAYMENTS | | 582,811 | 651,487 | 570,921 | 525,088 | 460,817 | 415,897 | 370,345 | 336,141 |
| TEREST FUNDING-ACTIVE PROJECTS | | 155,160 | 184,493 | 63,023 | 472,372 | 604,561 | 620,848 | 585,984 | 551,119 |
| TAL DEBT SERVICE FUNDING | | 4,753,850 | 4,914,100 | 4,623,773 | 4,964,571 | 3,495,643 | 3,402,204 | 3,311,712 | 3,066,088 |
| NE 25 NEW STATE RFL | | 215,259 | 202,092 | 147,159 | 608,558 | 740,747 | 757,034 | 722,169 | 687,305 |
| NE 22 EXISTINGSRF DEBT | | 4,538,592 | 4,712,008 | 4,476,614 | 4,356,014 | 2,754,896 | 2,645,170 | 2,589,543 | 2,378,784 |

WATER POLLUTION CONTROL AUTRHORITY SCHEDULE D
RESERVE FOR CAPITAL IMPROVEMENTS
(STATE CLEAN WATER FUND LOAN RETIREMENT FUNDING)

WATER POLLUTION CONTROL AUTRHORITY
RESERVE FOR CAPITAL IMPROVEMENTS
(STATE CLEAN WATER FUND LOAN RETIREMENT FUNDING)

15

| CTIVE OR FUTURE PROJECTS | ACTUAL BORROWED AS OF 06/19 | FY 19-20 | ESTIMATED BORROWINGS FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 | FY 24-25 | TOTAL BORROWING | NO. OF YEARS TO MATURITY FOR FUNDING AT 7/1/20 | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 | FY 24-25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| )W LEVEL WSTP -DESIGN | | | | | | | | | | | | | | |
| LOAN | | | 0 | 400,000 | 400,000 | 0 | | 800,000 | 21 | 32,826 | 32,826 | 32,826 | 32,826 | 32,826 |
| .UDGE PROCESSING PROJECT-DESIGN | | | | | | | | | | | | | | |
| LOAN | | | 0 | 200,000 | 400,000 | 0 | | 600,000 | 22 | 27,273 | 27,273 | 27,273 | 27,273 | 27,273 |
| ,ST AND WEST TREATMENT PLANTS | | | | | | | | | | | | | | |
| .UDGE PROCESSING PROJECT-CONSTRUCTION | | | | | | | | | | | | | | |
| LOAN -3 TO 4 YEAR PROJECT | | | | 7,500,000 | 7,500,000 | 7,500,000 | 7,500,000 | 30,000,000 | 24 | 1,304,348 | 1,304,348 | 1,304,348 | 1,304,348 | 1,304,348 |
| | | | | | 7,500,000 | 7,500,000 | 7,500,000 | 22,500,000 | 24 | 625,000 | 625,000 | 625,000 | 625,000 | 625,000 |
| )TAL TREATMENT FACILITIES | | | 0 | 8,100,000 | 8,300,000 | 15,000,000 | 15,000,000 | 53,900,000 | | | | | | |
| SO H | | | | | | | | | | | | | | |
| :ONSTRUCTION CWF 628C | | | | | | | | | | | | | | |
| LOANS H-3 thru H-5 | 0 | | | | | | | 0 | 20 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | | | | | | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| | | | 0 | | | | | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| SO H COMPLETION | | | | | | | | | | | | | | |
| :ONSTRUCTION CWF UB | | | | | | | | | | | | | | |
| LOANS | 0 | 0 | 875,000 | 875,000 | | | | 1,750,000 | 23 | 76,087 | 76,087 | 76,087 | 76,087 | 76,087 |
| SO H COMPLETION | | | 0 | | | | | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| :ONSTRUCTION CWF 706DC | | | | | | | | 0 | 21 | 0 | 0 | 0 | 0 | 0 |
| LOANS | 1,963,078 | 1,812,578 | 0 | 0 | | 0 | 0 | 3,775,656 | 21 | 179,793 | 179,793 | 179,793 | 179,793 | 179,793 |
| 'OTAL PROJECT CSO H | 1,963,078 | 1,812,578 | 875,000 | 875,000 | 0 | 0 | 0 | 5,525,656 | | 76,087 | 76,087 | 76,087 | 76,087 | 76,087 |
| :O PROJECTS- | | | | | | | | | | | | | | |
| .ONG TERM CONTROL PLAN | | | | | | | | | | | | | | |
| .OANS | | | | | | | | | | | | | | |
| STAGE 1- DESIGN | | | 1,500,000 | | | | | 1,500,000 | 23 | 65,217 | 65,217 | 65,217 | 65,217 | 65,217 |
| STAGE 1- DESIGN | | | | 1,500,000 | | | | 1,500,000 | 24 | 68,182 | 68,182 | 68,182 | 68,182 | 68,182 |
| STAGE 1- CONSTRUCTION | | | 250,000 | | | | | 250,000 | 23 | 10,870 | 10,870 | 10,870 | 10,870 | 10,870 |
| STAGE 1- CONSTRUCTION | | | | 3,500,000 | | | | 3,500,000 | 24 | 145,833 | 145,833 | 145,833 | 145,833 | 145,833 |
| STAGE 1- CONSTRUCTION | | | | | 3,500,000 | | | 3,500,000 | 23 | 152,174 | 152,174 | 152,174 | 152,174 | 152,174 |
| STAGE 1- CONSTRUCTION | | | | | | 2,000,000 | | 2,000,000 | 22 | 90,909 | 90,909 | 90,909 | 90,909 | 90,909 |
| STAGE 2- WQT | | | | | 350,000 | | | 350,000 | 23 | 15,217 | 15,217 | 15,217 | 15,217 | 15,217 |
| STAGE 3- DESIGN-ASH CREEK & WQT | | | 192,500 | 192,500 | | | | 385,000 | 24 | 16,042 | 16,042 | 16,042 | 16,042 | 16,042 |
| STAGE 3- DESIGN | | | | | 1,250,000 | | | 1,250,000 | 23 | 54,348 | 54,348 | 54,348 | 54,348 | 54,348 |
| STAGE 3- CONSTRUCTION | | | | | 2,500,000 | | | 2,500,000 | 23 | 113,636 | 113,636 | 113,636 | 113,636 | 113,636 |
| STAGE 3- CONSTRUCTION | | | | | | 1,500,000 | | 1,500,000 | 22 | 68,182 | 68,182 | 68,182 | 68,182 | 68,182 |
| STAGE 3- DESIGN-ASH CREEK STORAGE | | | | | | 0 | | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| STAGE 4- DESIGN-RELEIF INTERCEPTOR | | | | | 0 | | | 0 | 23 | 0 | 0 | 0 | 0 | 0 |
| STAGE 4- DESIGN | | | | | | 0 | | 0 | 22 | 0 | 0 | 0 | 0 | 0 |
| 'OTAL PROJECT-LT CONTROL PLAN | | | 1,942,500 | 5,192,500 | 7,600,000 | 3,500,000 | 0 | 18,235,000 | | 800,610 | 800,610 | 800,610 | 800,610 | 800,610 |
| /F RETIREMENT FUND ADJUSTMENT | | | | | | | | | | | | | | |
| TAL ACTIVE PROJECTS | 1,963,078 | 1,812,578 | 2,817,500 | 14,167,500 | 15,900,000 | 18,500,000 | 15,000,000 | 77,660,656 | | 136,186 | 136,186 | 136,186 | 136,186 | 136,186 |

INTEREST CALCULATIONS
FOR STATE DEBT RESERVE FUNDING
ACTIVE PROJECTS SCHEDULE D 16

| | FY 20-21 | FY 21-22 | FY 22-23 | FY 23-24 | FY 24-25 |
|---|---|---|---|---|---|
| :TIVE PROJECTS | | | | | |
| )W LEVEL NITROGEN PROJECT-DESIGN | | | | | |
| :ORROWINGS: | | | | | |
| :EPAYMENTS: | -30,000 | -30,000 | -30,000 | -30,000 | -30,000 |
| )AN BALANCE | 480,000 | 450,000 | 420,000 | 390,000 | 360,000 |
| | 9,925 | 9,325 | 8,725 | 8,125 | 7,525 |
| )TEREST | 9,925 | 9,325 | 8,725 | 8,125 | 7,525 |
| .UDGE PROCESSING PROJECT-DESIGN | | | | | |
| :ORROWINGS: | | | | | |
| :EPAYMENTS: | -50,000 | -50,000 | -50,000 | -50,000 | -50,000 |
| )AN BALANCE | 850,000 | 800,000 | 750,000 | 700,000 | 650,000 |
| | 17,542 | 16,542 | 15,542 | 14,542 | 13,542 |
| )TEREST | 17,542 | 16,542 | 15,542 | 14,542 | 13,542 |
| :SO H3, H4 | | | | | |
| :ONSTRUCTION CWF 628C | | | | | |
| .ORROWINGS: | | | | | |
| :EPAYMENTS: | -396,738 | -396,738 | -396,738 | -396,738 | -396,738 |
| )AN BALANCE | 6,480,056 | 6,083,318 | 5,686,580 | 5,289,842 | 4,893,104 |
| | 133,902 | 125,967 | 118,032 | 110,097 | 102,163 |
| )TAL INTEREST | 133,902 | 125,967 | 118,032 | 110,097 | 102,163 |

INTEREST CALCULATIONS
FOR STATE DEBT RESERVE FUNDING
ACTIVE PROJECTS SCHEDULE D



| | | | | | |
|---|---|---|---|---|---|
| LOANS | | | | | |
| STAGE 1- DESIGN | | | | | |
| BORROWINGS: | | | | | |
| REPAYMENTS: | -150,000 | -150,000 | -150,000 | -150,000 | -150,000 |
| .OAN BALANCE | 2,700,000 | 2,550,000 | 2,400,000 | 2,250,000 | 2,100,000 |
| | 55,626 | 52,626 | 49,626 | 46,626 | 43,626 |
| OTAL INTEREST | 55,626 | 52,626 | 49,626 | 46,626 | 43,626 |
| STAGE 1- CONSTRUCTION | | | | | |
| BORROWINGS: | 2,000,000 | | | | |
| REPAYMENTS: | -462,500 | -462,500 | -462,500 | -462,500 | -462,500 |
| .OAN BALANCE | 8,787,500 | 8,325,000 | 7,862,500 | 7,400,000 | 6,937,500 |
| | 21,658 | | | | |
| | 140,764 | 171,514 | 162,264 | 153,014 | 143,764 |
| OTAL INTEREST | 162,422 | 171,514 | 162,264 | 153,014 | 143,764 |
| LOANS | | | | | |
| STAGE 2-WQT | | | | | |
| BORROWINGS: | | | | | |
| REPAYMENTS: | -17,500 | -17,500 | -17,500 | -17,500 | -17,500 |
| .OAN BALANCE | 332,500 | 315,000 | 297,500 | 280,000 | 262,500 |
| | 6,840 | 6,490 | 6,140 | 5,790 | 5,440 |
| OTAL INTEREST | 6,840 | 6,490 | 6,140 | 5,790 | 5,440 |
| STAGE 3- DESIGN CEDAR CREEK & WQT | | | | | |
| BORROWINGS: | | | | | |
| REPAYMENTS: | -75,000 | -75,000 | -75,000 | -75,000 | -75,000 |
| .OAN BALANCE | 1,350,000 | 1,275,000 | 1,200,000 | 1,125,000 | 1,050,000 |
| | 27,813 | 26,313 | 24,813 | 23,313 | 21,813 |
| OTAL INTEREST | 27,813 | 26,313 | 24,813 | 23,313 | 21,813 |
| STAGE 3- CONSTRUCTION | | | | | |
| BORROWINGS: | 1,500,000 | | | | |
| REPAYMENTS: | 0 | -87,500 | -87,500 | -87,500 | -87,500 |
| .OAN BALANCE | 1,750,000 | 1,662,500 | 1,575,000 | 1,487,500 | 1,400,000 |
| | 16,244 | | | | |
| | 5,000 | 34,199 | 32,449 | 30,699 | 28,949 |
| 'OTAL INTEREST | 21,244 | 34,199 | 32,449 | 30,699 | 28,949 |
| STAGE 3 DESIGN-ASH CREEK STORAGE | | | | | |
| BORROWINGS: | 350,000 | | | | |
| REPAYMENTS: | | -17,500 | -17,500 | -17,500 | -17,500 |
| .OAN BALANCE | 350,000 | 332,500 | 315,000 | 297,500 | 280,000 |
| | 3,790 | | | | |
| | 0 | 6,840 | 6,490 | 6,140 | 5,790 |
| 'OTAL INTEREST | 3,790 | 6,840 | 6,490 | 6,140 | 5,790 |
| STAGE 4-DESIGN RELIEF INTERCEPTOR | | | | | |
| BORROWINGS: | 1,500,000 | | | | |
| REPAYMENTS: | | -87,500 | -87,500 | -87,500 | -87,500 |
| .OAN BALANCE | 1,750,000 | 1,662,500 | 1,575,000 | 1,487,500 | 1,400,000 |
| | 16,244 | | | | |
| | 5,000 | 34,199 | 32,449 | 30,699 | 28,949 |
| 'OTAL INTEREST | 21,244 | 34,199 | 32,449 | 30,699 | 28,949 |
| CSO PROJECTS- LONG TERM CONTROL PLAN | | | | | |
| TOTAL INTEREST | 298,977 | 332,179 | 314,229 | 296,279 | 278,329 |
| 'OTAL INTEREST ACTIVE PROJECTS | 604,561 | 620,848 | 585,984 | 551,119 | 516,255 |
| :WF RETIREMENT FUND ADJUSTMENT | | | | | |
| 'OTAL INTEREST ACTIVE PROJECTS | 604,561 | 620,848 | 585,984 | 551,119 | 516,255 |

WPCA
CAPITAL BUDGET
FISCAL 2020/2021

SCHEDULE E



| DEPT/ ACCOUNT | DESCRIPTION | SOURCE OF FUNDING: OPERATING FUNDS | BOND FUNDS | CWF STATE LOANS | CWF STATE GRANTS | TOTAL |
|---|---|---|---|---|---|---|
| | **MAJOR PROJECTS** | | | | | |
| 401-56060 | FACILITIES PLAN FOR THE WSTP | $ 1,202,229 | | | $ 1,469,391 | $ 2,671,619 |
| 401-56060 | COMBINED SEWER OVERFLOW PROJECT H CONSTRUCTION CWF 706DC | | | $ 1,677,612 | $ 1,677,612 | $ 3,355,224 |
| 401-56060 | COMBINED SEWER OVERFLOW PROJECT H 3 | | | $ 1,500,000 | $ 1,500,000 | $ 3,000,000 |
| | **EQUIPMENT & VEHICLES** | | | | | |
| | **WEST SIDE TREATMENT FACILITY** | | | | | |
| 401-56170 | MAJOR EQUIPMENT REPLACEMENT/OVERHAUL | $ 175,000 | | | | $ 175,000 |
| | Flygts & Chains | | $ 100,000 | | | $ 100,000 |
| | Spare Primary Drives (2) | | 60,000 | | | $ 60,000 |
| | Spare Final Drives (2) | | 60,000 | | | $ 60,000 |
| | Overhaul Misc Pumps | | 50,000 | | | $ 50,000 |
| | Primary Sludge Piping | | 100,000 | | | $ 100,000 |
| | Bypass Screen Upgrade | | 200,000 | | | $ 200,000 |
| | **EAST SIDE TREATMENT FACILITY** | | | | | |
| | MAJOR EQUIPMENT REPLACEMENT/OVERHAUL | $ 175,000 | | | | $ 175,000 |
| | Rebuild Misc Pumps | | 30,000 | | | $ 30,000 |
| | Rebuild Main Pump #1,4 | | 70,000 | | | $ 70,000 |
| | Rebuild Mixed Sludge Pump | | 60,000 | | | $ 60,000 |
| | Rebuild Grit Classifier #1,2 | | 100,000 | | | $ 100,000 |
| | Misc Building Roof Repair | | 30,000 | | | $ 30,000 |
| | Replace Mix Sludge Pumps | | 40,000 | | | $ 40,000 |
| | **FIELD OPERATIONS** | | | | | |
| 401-55045 | Small Pickup Truck (2) | | 60,000 | | | $ 60,000 |
| | Mini Boom | | 120,000 | | | $ 120,000 |
| | Gondola Tuck | | 95,000 | | | $ 95,000 |
| | Mason Dump Truck | | 120,000 | | | $ 120,000 |
| | **ADMINISTRATION** | | | | | |
| 401-55055 | MS 4 Mapping | $ 125,000 | | | | $ 125,000 |
| | TOTALS | $ 1,677,229 | $ 1,295,000 | $ 3,177,612 | $ 4,647,003 | $ 10,796,844 |

Planned Sewer Rehablitation
Fiscal 2020/2021 Budget



SCHEDULE F

Contract PL-2 Pipe lining

| | Location | Pipe Size inches | Length Ft. | Unit price | Estimated cost |
|---|---|---|---|---|---|
| | | | | | |
| 1 | miscellaneous locations | 12 | 240 | $54.00 | $12,960 |
| 2 | miscellaneous locations | 22x28 | 400 | $102.00 | $40,800 |
| 3 | miscellaneous locations | 10x15 | 250 | $75.00 | $18,750 |
| 4 | miscellaneous locations | 60x41 | 700 | 328 | $229,600 |
| 5 | miscellaneous locations | 50x38 | 600 | 246 | $147,600 |
| 6 | miscellaneous locations | 10x15 | 1500 | 75 | $112,500 |
| 7 | Manual Openings | N/A | N/A | N/A | $30,000 |
| 8 | Heavy cleaning | N/A | N/A | N/A | $230,000 |
| 9 | Police Time | N/A | 0 | 57 | $75,630 |
| | | | | | |
| | Total PL-2 | | 2190 | | $897,840 |

Contract PR-2 Pipe replacement

| | Location | Pipe Size inches | Length Ft or Each | Unit price | Estimated cost |
|---|---|---|---|---|---|
| | | | | | |
| 1 | miscellaneous locations | 30 | 298 | 125 | $37,250 |
| 2 | miscellaneous locations | 30 | 850 | 95 | $80,750 |
| 3 | Open Manholes and rebuild lining | 7 | | 20,000 | $100,000 |
| 4 | Drywells | 3 | | 6,500 | $19,500 |
| 6 | Mobilization (non Emergency) | | 6 | 1,600 | $9,600 |
| 7 | Class B Concrete in place (Approximate) | | 14 | 200 | $2,700 |
| 8 | Connect tosewer /MH | | 10 | 500 | $5,000 |
| 9 | Crushed Stone in Place (Approximate) CY | | 800 | 40 | $32,000 |
| 10 | Bank run gravel (Approximate) | | 311 | 40 | $12,440 |
| 11 | Bituminous hot mix Paving for Replacement | 32ft wide | 1200 | 65 | $78,000 |
| 12 | Bituminous hot mix 2" overlay | | 1500 | 12 | $18,000 |
| 13 | Police Time | N/A | 1250 | 57 | $71,250 |
| 14 | Utility relocation | N/A | | | $40,000 |
| | Total PR-2 | | | | $506,490 |
| | Grand Total for PL-2 and PR-2 | | | | $1,404,330 |

## Water Pollution Control Authority for the City of Bridgeport

**Schedule G**

## Schedule of Fees (other than Sewer Use) Fiscal Year 2020-2021

| | | Fee Amount |
|---|---|---|
| Sewer Connection Permit Fee (New Connections): | | |
| Sanitary | Single Family Dwelling | **$125** |
| Sanitary | Multiple Family Dwelling(up to 4 units) | **$200** |
| Sanitary | Multiple Family Dwelling(5 or more units) Additional charge per unit over 4 | **$50** |
| Sanitary | Commercial/Industrial Building | **$275** |
| Storm Sewer(Residential per connection) | | **$125** |
| Storm Sewer(Commercial/Industurial per connection) | | **$275** |
| Review and Approval of Grease Trap Plans and Specifications | | **$200** |
| Inspection Permit Fees: | | |
| Sanitary Sewer Lateral Repair (8:00AM to 4:00PM M-F) | | **$100** |
| Sanitary Sewer Lateral Repair(Other Hours) | | **$200** |
| Special Sewer Use Billing Charge(Non-Discharge Adjustment or Special Discharge Permit)Per Invoice | | **$25** |
| Special Sewer Use Billing Charge(Non-Discharge Adjustment for residential installed irrigation systems)Per Invoice | | **$3** |
| Returned Check Fee | | **$40** |
| Sewer User Full Account History | | **$2** |
| Sewer Maps(per Sheet) | Up to 3' Wide | **$5** |
| | 8-1/2" x 11" to 17" per sheet | **$3** |
| Septage Dumping(Up to 1000 Gallons) | | **$260** |

WRIGHT-PIERCE
Engineering a Better Environment

# MEMORANDUM

| | | | |
|---|---|---|---|
| **TO:** | William Maurer, PE | **DATE:** | 5/8/2020 |
| **FROM:** | Joe Hausmann, PE<br>Christine Kurtz, PE | **PROJECT NO.:** | 13905E |
| **SUBJECT:** | Trumbull Mall outparcel expansion<br>Review of available sewer capacity – May 2020 Revised Draft | | |

The Trumbull Mall purchased the properties on Whalburn Avenue and Stuart Place and are looking into the possibility of developing the area. The consultant is requesting information from the Trumbull WPCA regarding the potential available sewer capacity in this area. This information has been requested in order to determine what types of development are possible, and how large a sewer flow the development could generate and still be acceptable to Trumbull.

## COLLECTION SYSTEM IMPACTED

In order to determine the sewer capacity, we utilized sewer system mapping from previous projects working with the WPCA as well as the available record drawings from the Trumbull WPCA's ArcGIS collector system.

Figure 1 below shows the sewer system in the vicinity of the Mall and the subject area. Proposed flow would leave the area of Whalburn Avenue and Stuart place, and flow to the west to an 8-inch PVC sewer that generally follows the loop road around the Mall building, flowing towards the south side of the Mall building. Behind the mall, the 8-inch PVC sewer connects to the 30-inch RCP trunk line on the "gravity-side" of the sewer system, about 3 manholes above the Sunnydale and Leeland meter station, where the Trumbull system connects into the Bridgeport Sewer System.

The 8-inch main along the loop road carries flow from the mall itself, and formerly from Whalburn and Stuart along with approximately 37 mostly residential buildings along Main street (from Gorham Place to the Merritt Parkway). The only notable non-residential building in the contributing area is a funeral home at the corner of Gorham Place and Main Street. Sewer Manhole 1A-67 in Figure 1 flows south to Bridgeport and does not connect to the impacted sewers.

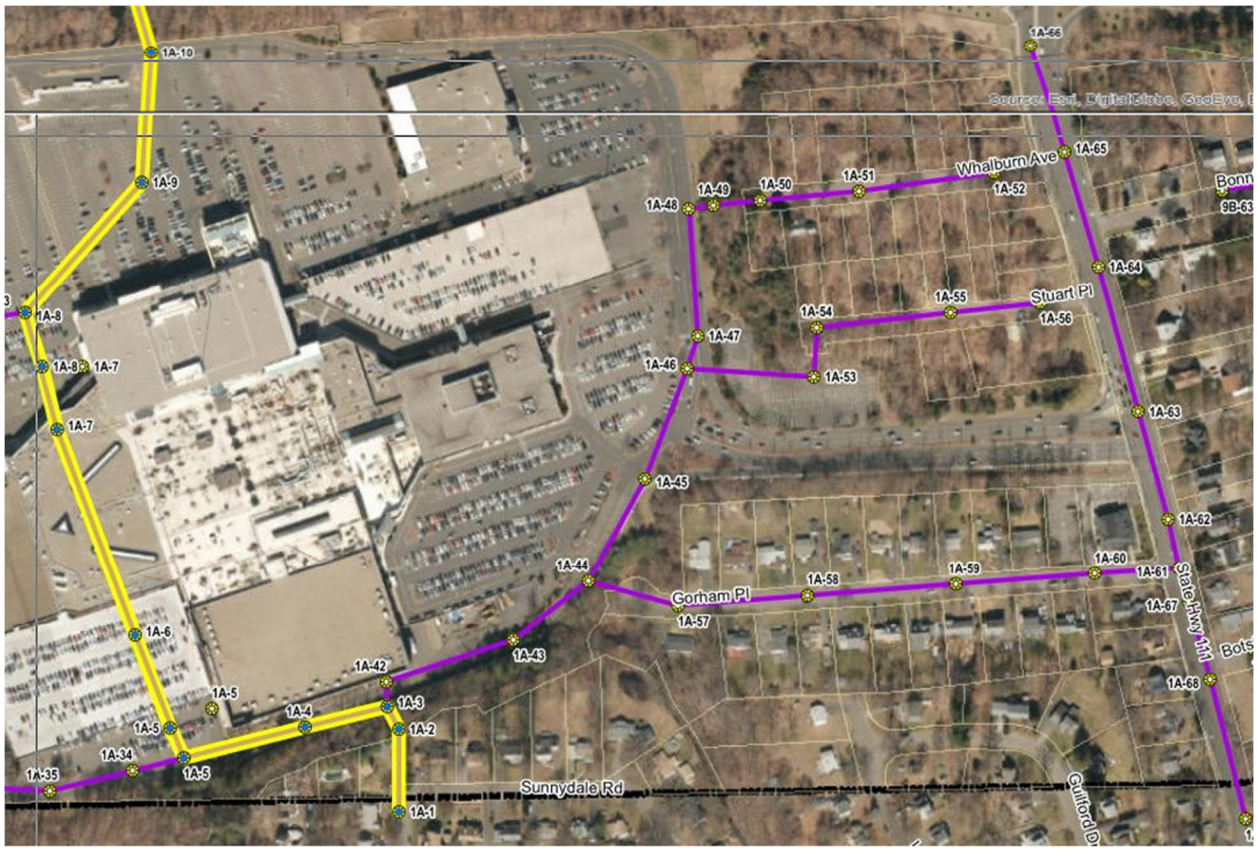
We first evaluated the collector sewers in the vicinity of the mall expansion area to determine their capacity in the most limiting sewer segment. We then estimated the flows from adjoining areas that flow through the limiting segment, to determine the estimated remaining available capacity for expansion at the proposed site. We then reviewed the 30-inch trunk sewer downstream of the impacted collector sewers, compare its capacity to the metering data available, to verify that the trunk line has enough capacity to accept the same flow as the local collector sewers.

For the purposes of this evaluation we obtained water use data from the mall to attempt to account for mall flows that are connected to the impacted sewers. Because we could not determine where

the wastewater from the mall tenants entered the collection system, we conservatively presumed that all of the water entered the 8-inch collector sewer versus connecting to the 30-inch interceptor.

**FIGURE 1**

**IMPACTED SEWER SYSTEM AREA**




## COLLECTOR SEWER CAPACITY

The 8-inch sewer along the loop road has a section that was installed close to minimum slope (approximately 0.0055 ft/ft). This segment is between manholes 1A-42 and 1A-43 in the sewer system shown Figure 1 and appears to be the limiting segment in the area.

Using manning's equation, and an 'n' factor of 0.013, an 8-inch sewer at 0.0055 ft/ft has an approximate full pipe capacity of 580,000 gpd.

**Existing Flows in Collector Sewer**

Using the typical method utilized by Trumbull for calculating flows from existing parcels, we have estimated the amount of flow from the 37 parcels connected to the Gorham Place sewer. Typically, for residential uses, we utilize an assumed 2.78 residents per residential unit and a flow of 70 gallons per person, per day. In addition, we add a peaking factor based on the relative size of the drainage area and contributing flow to estimate peak flows and add an allowance for infiltration and inflow based on the surface area of the contributing sewers. For the existing parcels along Gorham Place and Main Street, the estimate flows were determined as follows:

- 37 parcels * 2.78 residents per parcel * 70 gallons per person per day = 7,200.2 gpd
- Peaking factor = 5.6 taken from TR-16 table
- Peak sewer flow = 7,200.2 * 5.6 = 40,321 gpd
- I/I allowance = 500 gpd/in-mile of pipe * 8” pipe * 2,300 ft = 1,742 gpd
- Estimated peak existing flow = 40,321 + 1,742 = 42,063 gpd

This estimated flow does not include any connections from the mall parcel itself. For the mall flows, we obtained 3 years of flow data for the 11 separate accounts located at the mall property. We assumed that the average daily sewer flow from the mall is the average daily flow of the highest year. For this evaluation, we assumed that **all** of the water used by the mall would be discharged to the 8-inch sewer. We then put the peaking factor on the average flow to estimate the peak flow from the mall:

- 2019 average daily water use = 57,700 gpd
- Estimated peak flow = 57,700 * 5.6 = 323,120 gpd

Therefore, the current peak flow in the pipe could be as high as approximately 365,200 gpd.

**Available collector sewer capacity**

Based on this evaluation there appears to be approximately 215,000 gpd of existing peak full pipe capacity available.

It is our understanding that the proposed development is anticipated to contain approximately 260 residential units. This development could generate the following flows:

- 260 units * 2.78 residents per unit * 70 gpd/person = 50,596 gpd
- Peaking factor = 5.6 taken from TR-16 table
- Peak sewer flow = 50,596 * 5.6 = 283,338 gpd

This estimation does not include any additional flows for the pool or clubhouse, but also assumes 2.78 residents per unit despite a proposed mix of 60 one-bedroom units, and 200 two-bedroom units. However, the result resembles the developer's proposed peak flow rate of 290,000 gpd.

Therefore, in this conservative evaluation, it appears that the 260-unit development could cause the pipe to be approximately 68,000 gpd above its capacity in a peak flow scenario. However, this evaluation assumes that all of the mall's water use is connected to the 8-inch collector sewer, and not to the 30-inch interceptor which also runs across the property (or to any other private sewers on site that do not connect to the 8-inch main).

From a quick review of Collector (the town's software program used for mapping) for sewer lateral tie cards and records drawings, we were unable to determine if there are any sewer connections from the mall to the 8-inch sewer there are notations for three connections to the 30-inch sewer. Thus, it is unlikely that the full flow of the mall directly impacts the 8-inch sewer as was assumed in the above evaluation. The developer indicated at the recent WPCA meeting that the flows from the Lord & Taylor retail store and from the Whalburger and Cheesecake Factory restaurants are connected to the 8-inch sewer. From the water use records we received, there was a billing site noted for Lord & Taylor, but it was unclear which of the other accounts is the Whallburger/Cheesecake Factory account. The Lord & Taylor water billing account utilized only approximately 516 gpd on average in 2019.

It is recommended that the mall work with its developer and the WPCA to determine where the existing mall property water meters and sewer connections are located to determine more accurately what part of the mall's sewer flows connect to the 8-inch sewer to ensure that the 8-inch pipe does have the required capacity.

However, in a worst-case scenario, if it is determined that the mall flows are fully connected to the 8-inch pipe, it would be recommended that the limiting 8-inch segment and the short 8-inch segment downstream of the limiting segment (from MH 1-3 to MH 1A-43) be increased in size to prevent a surcharged condition during peak flows.

## TRUNK SEWER CAPACITY

The 30-inch sewer between manhole 1A-2 and 1A-1 (which is also the Sunnydale and Lealand meter pit), is an RCP pipe with a slope of approximately 0.0022 ft/ft. Using manning's equation, and an 'n' factor of 0.015, a 30-inch sewer at 0.0022 ft/ft has an approximate full pipe capacity of 10.8 MGD.

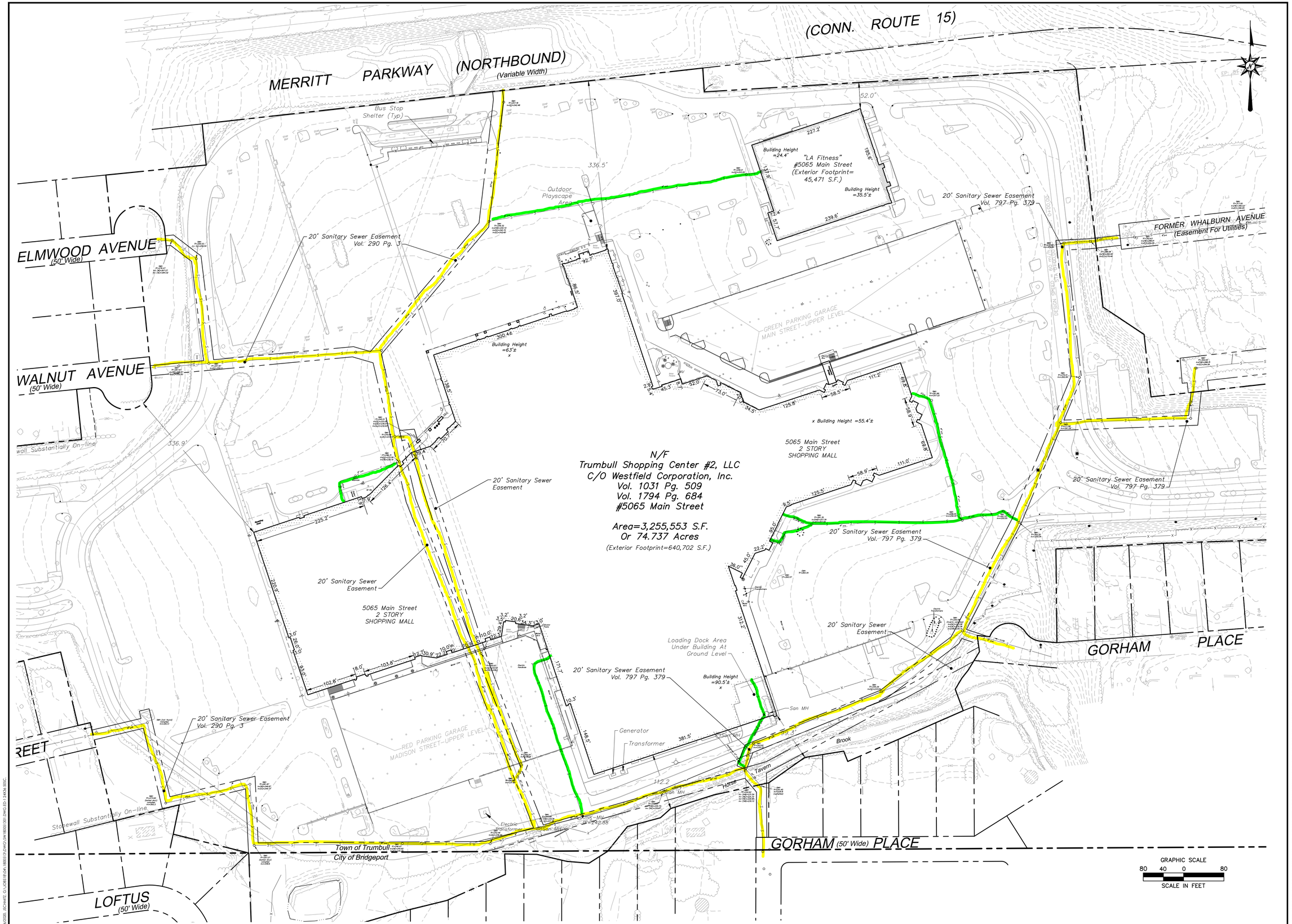
### Existing flows

We reviewed the Sunnydale meter flow data in mission for 2019 to identify the peak hourly flow rate in the 30-inch pipe. The highest flow rate recorded by the Sunnydale and Lealand flow meter

(located in Manhole 1A-1 just south of the mall) in 2019 was on January 24th, in the early afternoon, which was just after a 1.5-inch rainstorm (likely with some snow melt). Based on the flow meter data around this time, it appears that the flow rate in the 30-inch pipe reaches about 2,770 gpm, or about 4 MGD, on occasion as the peak hourly flow.

**Available trunk sewer capacity**

Since the capacity in the 30-inch interceptor sewer line between the Mall and the metered connection into the Bridgeport sewer system is approximately 10.8 MGD, with a peak hourly flow around 4 MGD, there appears to be enough excess capacity in the main interceptor line to handle any flows that are conveyed to the trunk line by the collector sewers in the mall vicinity, unless those sewers are dramatically upsized.

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TRUMBULL, CONNECTICUT

REVISIONS

| No. | Date | Desc. |
|---|---|---|

| | |
|---|---|
| Designed | A.T.K. |
| Drawn | A.T.K. |
| Reviewed | J.J.S. |
| Scale | 1"=80' |
| Project No. | 1800513 |
| Date | 04/30/2020 |
| CAD File: SW180051301 | |

Title

**EXISTING SANITARY SEWER PLAN**

Sheet No.

**SW-1**

Xref (s): BD180051301 ; XYOSC13801 ; XY180051302 ; XZ180051301 ; XY180051301 ; XC180051301 ; XC180051302 ; XY190181901-sewers