

**EAST GOSHEN MUNICIPAL AUTHORITY**

**May 14, 2018**

**7:00 PM**

1. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE

- a. Ask if anyone will be taping the meeting

2. CHAIRMAN'S REPORT/OTHER MEMBERS REPORTS

3. SEWER REPORTS

- a. Director of Public Works Report.
- b. Pennoni Engineer's Report.
- c. Big Fish Environmental Report.

4. APPROVAL OF MINUTES

- a. April 9, 2018

5. APPROVAL OF INVOICES

Pennoni Invoice #799471	\$	45.50
Pennoni Invoice #799466	\$	510.75
Pennoni Invoice #799477	\$	5,672.50
Pennoni Invoice #799467	\$	30.75
Pennoni Invoice #799468	\$	3,408.25
Gawthrop Invoice #194208	\$	480.00

6. LIAISON REPORTS

7. FINANCIAL REPORTS

- a. April Financial Report

8. OLD BUSINESS

- a.

9. GOALS

- a. Continue to monitor the upgrades at West Goshen Sewer Plant. Jack and Phil have been attending meetings.
- b. Continue to implement the I&I Plan – 3-8-2018 completed

- c. Submit articles for the newsletter - none

10. NEW BUSINESS

- a. Tallmadge Drive Sewer Replacement Bid Review
- b. Suplee Valley payment App. No. #1 – Sanitary Sewer Pipe Lining

11. CAPACITY REQUESTS

12. ANY OTHER MATTER

13. CORRESPONDENCE AND REPORTS OF INTEREST

- a.

14. PUBLIC COMMENT

15. ADJOURNMENT

EAST GOSHEN MUNICIPAL AUTHORITY  
EAST GOSHEN TOWNSHIP  
1580 PAOLI PIKE, WEST CHESTER, PA 19380-6199

May 7, 2018

To: Municipal Authority  
From: Mark Miller  
Re: April 2018 Monthly Report

**Monthly Flows:** The average daily flow to West Goshen was 764,000 gallons per day. No problems to report.

**Meters:** The meters are being read on a daily basis. Allied Control came out to calibrate all the meters on May 3<sup>rd</sup>.

**C.C. Collection:** The pump stations were checked on a daily basis. We had three emergency call outs at the Barkway Pump Station for the back-up float failure. We found that one of the back floats had failed. The float was replaced and the station was put back on line. The generators were all serviced at part of the routine maintenance. No problems were found at the pump station generators.

We televised approximately 2500 of main on Cornwallis Drive. We completed restoration work to the laterals that we repaired over the winter.

**R.C. Collection:** Hunt Country Pump Station was visited on a daily basis with no problems to report. We cleaned the sewer line on Talmadge Drive as part of an on-going maintenance until the line is replaced.

**Ridley Creek:** The plant was visited on a daily basis. The plant operator notified me that the flow meter was not operating. Allied Control was already on site when Scott called, so they pulled the probe and checked out the meter. The screen room trough is scheduled to be cleaned next week as part of our routine basis. The generators were serviced as part of our preventive maintenance, the tech has recommended that we consider replacing the older Spectrum unit. He noted that the unit went thru five gallons of oil over a 5 month period, the unit was installed in 1996.

**Alarms:**

We responded to 12 alarms for April which were all various issues.

**PA One Calls:**

We received 75 PA One calls April.



**EAST GOSHEN MUNICIPAL AUTHORITY**  
**ENGINEER'S REPORT**  
May 10, 2018

**Invoices**

- Invoices with summaries are provided under separate cover.

**Ridley Creek Sewage Treatment Plant (RCSTP)**

- Caustic soda pilot study – The trial began on February 28 and concluded on May 6. We are currently analyzing the sampling data and will provide a verbal update at the May MA meeting. We intend to follow-up with a letter report of the results, potential permanent caustic soda feed concept and capital cost estimate, and a cost-benefit analysis of caustic soda vs. soda ash.

**RCSTP and Pump Stations' O&M Manual**

- We recommend the Manual be revisited in July-August 2018 to determine if updates are needed and/or if new information has become available to incorporate.

**Supplee Valley Pipe Lining**

- We have continued to provide construction administration and inspection services.
- SWERP completed lining of all contracted sewers on February 21. They subsequently installed supplemental lateral saddle liners in 3 of 6 locations in April that were approved via change order. One of the lateral locations cannot be lined or grouted due to the severe angle of connection between the lateral and the main; however, this location only had a very minor infiltration leak. We are coordinating with the PW Department to evaluate the feasibility of installing saddles in the other two difficult-to-access laterals as well as the one spot repair lateral liner that was approved via change order. Lastly, the contractor still needs to perform injection grouting in two manholes. Once we resolve the accessibility, we will pursue a schedule from the contractor to complete the work.
- We processed the first pay application and forwarded our recommendation to the Township.

**Barkway Pump Station Grinder**

- We completed construction plans for the installation of the Muffin Monster and submitted them to the Township for review. The grinder is proposed inside the existing wet well, and the hydraulic power pack is proposed inside the generator/controls building. *No update since our last report.*

**Ashbridge Pump Station Force Main**

- Test pits will be performed to identify backfill conditions along Manley Road with one test pit on Edith Road, as recommended by the Municipal Authority, when weather permits. *No update since our last report.*

**Tallmadge Drive Sewer Main Replacement**

- We prepared a bid document with plans to replace 545 linear feet of sanitary sewer pipe and one manhole. The project was bid on PennBID, and we responded to contractor questions and issued one addendum. Bids were received from four contractors on May 8. The bids were higher than anticipated so we have discussed with the bidders and a few contractors that opted not to bid, and we have

analyzed alternatives to re-bid the project to reduce the cost. Those considerations have been sent to the Township in a separate memo along with the official bid tabulation.

#### **I&I Support and Reporting**

- No activity since our last report. We intend to analyze meter data and submit the next semi-annual I&I report following completion of the Supplee Valley pipe lining project so that the impact of that project can be assessed. That report will likely be issued in the July-August timeframe. We propose to make a summary Powerpoint presentation at a MA meeting immediately thereafter.

#### **New Connections**

- We reviewed a revised plan for a new residential sewer connection at 1506 Meadowbrook Lane via grinder pump. Updated comments were provided as part of the Land Development Plan review.

#### **West Goshen Sewer System Consultation**

- No activity since last report.



**RCSTP Monthly Operations  
Report:  
April 2018**

### Executive Summary

The Ridley Creek sewage treatment plant outfall 001 achieved compliance with the permitted effluent discharge limitations for during the month of March 2018. Discharge to the Applebrook storm water lagoon continued during the month. Chemical usage utilized for total phosphorus removal, pH and total alkalinity remained consistent with previous months. The caustic solution addition pilot study for pH control continued during the month. No significant mechanical or operational issues were observed during operation of sludge dewatering equipment or SBR treatment process.

### Treatment Process Operation

Table 1 illustrates the final effluent composite sample data reported for the March 2018 DMR.

**Table 1**

<b>March 2018 - Final Effluent - Out Fall 001</b>											
NPDES Permit Discharge Limitations	Flow	CBOD <sub>5</sub>		TSS		NH <sub>4</sub> -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD Average	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	Geo Mean	Geo Mean
	0.75	20	125	10	131	2.5	44	0.5	3	200	1,000
	Instantane ous Maximum	40		42							
Sample Date											
March 1, 2018	0.369			6	18.5						
March 6, 2018	0.264	2.7	5.9	5	11.0	0.825	1.82	0.26	0.57	1	0.0000
March 9, 2018	0.232			4	7.7						
March 12, 2018	0.327			6	16.4						
March 13, 2018	0.292	5.8	14.1	5	12.2	0.187	0.46	0.26	0.63	4	0.6021
March 16, 2018	0.252			6	12.6						
March 20, 2018	0.263	2.6	5.7	4	8.8	0.260	0.57	0.19	0.42	1	0.0000
March 23, 2018	0.284			6	14.2		0.00		0.00		
March 27, 2018	0.254	2.0	4.2	8	16.9	0.794	1.68	0.32	0.68	148	2.1703
Average	0.282	3.3	7.5	6	12.5	0.517	0.90	0.26	0.46	39	0.6931
Minimum	0.232	2.0	4.2	4	7.7	0.187	0.00	0.19	0.00	1	0.0000
Maximum	0.369	5.8	14.1	8	18.5	0.825	1.82	0.32	0.68	148	2.1703

The total phosphorus monthly average was reported as 0.26 mg/L as compared to the permitted limitation of 0.50 mg/L. Total phosphorus discharge concentrations ranged from 0.19 to 0.32 mg/L. The ammonia as nitrogen monthly concentration





**RCSTP Monthly Operations  
Report:  
April 2018**

was reported as 0.517 mg/L as compared to the permit discharge limitation of 2.5 mg/L. The ammonia as N weekly maximum was 0.825 mg/L. The total suspended solids (TSS) monthly concentration was reported as 6 mg/L as compared to the permit discharge limitation of 10 mg/L. The weekly maximum concentration was 8 mg/L as compared to the permit discharge limitation of 15 mg/L.

Table 2 illustrates the final effluent composite sample data reported for the March 2018 DMR. Discharge to Applebrook, Outfall 002 was 4,204,400 gallons during March.

**Table 2**

<b>March 2018 - Applebrook - Out Fall 002</b>											
NPDES Permit Discharge Limitations	Flow	CBOD <sub>5</sub>		TSS		NH <sub>4</sub> -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	Geo Mean	Geo Mean
	Average										
	0.75	20	125	21	131	7	44	0.5	3	200	1,000
	Instantane ous Maximum	40		42							
March 1, 2018	0.1423			6	7.1						
March 6, 2018	0.1296	2.7	2.9	5	5.4	0.825	0.89	0.26	0.28	1	0.0000
March 9, 2018	0.1117			4	3.7						
March 12, 2018	0.1473			6	7.4						
March 13, 2018	0.1472	5.8	7.1	5	6.1	0.187	0.23	0.26	0.32	4	0.6021
March 16, 2018	0.1515			6	7.6						
March 20, 2018	0.1452	2.6	3.1	4	4.8	0.260	0.31	0.19	0.23	1	0.0000
March 23, 2018	0.1436			6	7.2						
March 27, 2018	0.1387	2.0	2.3	8	9.3	0.794	0.92	0.32	0.37	148	2.1703
Average	0.1397	3.3	3.9	6	6.5	0.517	0.59	0.26	0.30	39	0.6931
Minimum	0.1117	2.0	2.3	4	3.7	0.187	0.23	0.19	0.23	1	0.0000
Maximum	0.1515	5.8	7.1	8	9.3	0.825	0.92	0.32	0.37	148	2.1703

The monthly average influent wastewater pollutant concentrations and loading entering the wastewater treatment facility remained within the design concentrations. Composite samples are collected at the influent doghouse manhole and influent wet well. The influent flow meter reading is collected from the influent flow meter located prior to the Screening Building, excluding the internal recycle flows.



**RCSTP Monthly Operations  
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Table 3 presents the available pollutant data for the influent wastewater collected at the doghouse manhole during March 2018.

**Table 3**

March 2018 - Influent Wastewater											
Design Basis	Flow	BOD <sub>5</sub>		TSS		NH <sub>4</sub> -N		TKN, mg/L		Phosphorus, Total, mg/L	
	MGD Average	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
		335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
March 6, 2018	0.454	140	530	254	962	24.7	94	27.8	105	5.1	19.3
March 13, 2018	0.512	60.2	228	182	689	22.2	95	23.9	102	4.1	15.5
March 20, 2018	0.456	248	939	218	826	34.1	130	32.8	125	6.6	25.0
March 27, 2018	0.475	125	473	71	269	23.1	92	31.3	124	3.6	13.6
Average	0.474	143	543	181	686	26.0	102	29.0	114	4.9	18.4
Minimum	0.454	60	228	71	269	22.2	92	23.9	102	3.6	13.6
Maximum	0.512	248	939	254	962	34.1	130	32.8	125	6.6	25.0

Table 4 presents the available Outfall 001 final effluent data for the month of April 2018. Continued maintenance activities of cleaning the alum static mixer injector, flushing of the alum chemical piping to the SBRs and weekly draining and cleaning of the disc filters. The alum feed to the SBRs was frequently increased to improve the total phosphorus removal.



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**Table 4**

<b>April 2018 - Final Effluent - Out Fall 001</b>											
NPDES Permit Discharge Limitations	Flow	CBOD <sub>5</sub>		TSS		NH <sub>4</sub> -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD		lbs/ month		lbs/ month		lbs/ month		lbs/ month	Geo Mean	Geo Mean
	Average	mg/L		mg/L		mg/L		mg/L			
	0.75	20	125	10	131	2.5	44	0.5	3	200	1,000
		40		42							
Sample Date											
April 3, 2018	0.254	4.4	9.3	5	10.6	0.109	0.23	0.14	0.30	3	0.4771
April 6, 2018	0.235			7	13.7						
April 10, 2018	0.226	5.9	11.1	7	13.2	0.342	0.64	0.25	0.47	1	0.0000
April 13, 2018	0.185			6	9.3						
April 17, 2018	0.297	3.1	7.7	6	14.9	0.187	0.46	0.2	0.50	2	0.3010
April 20, 2018	0.243			6	12.2						
April 24, 2018	0.233							0.21	0.41		
April 26, 2018	0.230			5	9.6						
Average	0.238	4.5	9.4	6	12.1	0.265	0.55	0.22	0.46	2	0.1505
Minimum	0.185	3.1	7.7	5	9.3	0.109	0.23	0.14	0.30	1	0.0000
Maximum	0.297	5.9	11.1	7	14.9	0.342	0.64	0.25	0.50	3	0.4771

The facility is anticipated to achieve compliance with the discharge permit limitations during the month of April 2018. Split sampling of the composite sample collected by Applied Laboratory Services (ALS) is ongoing for comparative analysis and daily results.

During April, the presence of foam conditions on the surface of the SBRs remained at 90% to 100% coverage of the surface area. The foam thickness is approximately 3 to 4 inches with a light to medium brown color. The lower water temperatures within the SBRs, coupled with lower food to mass ratios, the foam concentrations have increased because of increased filamentous growth. Management of the food to mass ratio assists to manage the foam concentrations balanced by maintaining nitrification is critical during the colder winter months.

Table 5 presents the available April data for Outfall 002, Applebrook. The discharge limitations for Outfall 002 are anticipated to remain within compliance with the NPDES permit.





**RCSTP Monthly Operations  
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**Table 5**

<b>April 2018 - Applebrook - Out Fall 002</b>											
NPDES Permit Discharge Limitations	Flow	CBOD <sub>5</sub>		TSS		NH <sub>4</sub> -N		Phosphorus, Total , mg/L		Fecal Coliform	
	MGD Average	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	mg/L	lbs/ month	Geo Mean	Geo Mean
	0.75	20	125	21	131	7	44	0.5	3	200	1,000
		40		42							
April 3, 2018	0.1393	4.4	5.1	5	5.8	0.109	0.13	0.14	0.16	3	0.4771
April 6, 2018	0.1519			7	8.9						
April 10, 2018	0.1390	5.9	6.8	7	8.1	0.342	0.40	0.25	0.29	1	0.0000
April 13, 2018	0.1431			6	7.2						
April 17, 2018	0.1374	3.1	3.6	6	6.9	0.187	0.21	0.20	0.23	2	0.3010
April 20, 2018	0.1280			6	6.4						
April 24, 2018	0.1387							0.21	0.24		
April 26, 2018	0.1402			5	5.8						
Average	0.1397	4.5	5.2	6	7.0	0.213	0.25	0.20	0.23	2	0.2594
Minimum	0.1280	3.1	3.6	5	5.8	0.109	0.13	0.14	0.16	1	0.0000
Maximum	0.1519	5.9	6.8	7	8.9	0.342	0.40	0.25	0.29	3	0.4771

Table 6 presents the available pollutant data for the influent wastewater collected at the doghouse manhole during April 2018.

**Table 6**

<b>April 2018 - Influent Wastewater</b>											
Design Basis	Flow	BOD <sub>5</sub>		TSS		NH <sub>4</sub> -N		TKN, mg/L		Phosphorus, Total, mg/L	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
	MGD Average	335	2,098	320	2,001	32	200	48	301	9.1	57
Sample Date											
April 3, 2018	0.485	316	1,279	286	1,158	26.6	108	31.7	128	5.3	21.5
April 10, 2018	0.454	233	943	301	1,219	29.3	111	29.0	110	5.4	21.9
April 17, 2018	0.508	209	846	129	522	22.5	95	31.2	132	3.6	14.6
April 24, 2018	0.463										
Average	0.477	253	1,023	239	966	26.1	105	30.6	123	4.8	19.3
Minimum	0.454	209	846	129	522	22.5	95	29.0	110	3.6	14.6
Maximum	0.508	316	1,279	301	1219	29.3	111	31.7	132	5.4	21.9



**RCSTP Monthly Operations  
Report:  
April 2018**

Sequencing batch reactors (SBRs) numbered 2, 3 and 4 were in service during March and April. Process monitoring of each SBR included ammonia as N, nitrite as N, Nitrate as N, COD, SSV, MLSS and total phosphorus. Daily analysis of the final effluent flow equalization grab sample is total phosphorus is ongoing. Sample collection and analysis of the influent wastewater collected at the influent pump station wet well is ongoing.

Addition of aluminum sulfate solution to the SBRs to assist with phosphorus removal continued. Soda ash assists towards maintaining SBR pH concentrations above 7.0 standard units and assists to replenish alkalinity consumed during the nitrification process and aluminum sulfate solution addition.

**Pilot Study – Addition of Caustic solution for supplemental pH and total alkalinity**

The pilot study adding caustic solution for supplemental pH and total alkalinity continued during April and ended May 6, 2018.

**Significant Rainfall**

During April, there were thirteen (13) days when rainfall occurred. Two (2) storm events resulting in a daily precipitation amount equal to or greater than 0.5 inches measured during a 24-hour period as well as consecutive days of precipitation exceeding 0.5 inches of rainfall. A total of 3.56 inches of rainfall measured during the month. These events occurred on:

April 7 <sup>th</sup> & 8 <sup>th</sup>	0.65 inches
April 16 <sup>th</sup>	2.75 inches
April 25 <sup>th</sup>	0.64 inches

Plant operations were adjusted to manage the precipitation to prevent exceedances of the permitted discharge limitations for Outfall 001. Adjustments included reading aeration minutes per cycle, extending decant minutes per cycle and reducing settling times.

**PA DEP**

Investigating the status of the Applebrook Water Quality Management (WQM) permit.





**RCSTP Monthly Operations  
Report:  
April 2018**

**Solids Dewatering and Disposal:**

April 2018	
Gallons of sludge dewatered	267,137
Number of dumpsters	4

*\*Seventeen (17) days of centrifuge operation*

**Chemical Usage:**

April 2018		
Chemical	Daily Average	Total Monthly
Soda Ash	200	6,000
Aluminum Sulfate solution	57.2	1,657
Polymer (centrifuge)	0.85	14.45

*\*Seventeen (17) days of centrifuge operation*

**Flow data:**

April 2018			
Flow Meter Location	Total Volume for Month, MG	Average Daily Flow, gpd	Daily Maximum Flow, gpd
Influent Wastewater to Screening Building*	18.404	613,481	868,970
Influent Wastewater to SBRs	14.637	487,898	646,528
Internal Recycle	0.027	901	27,028
Treated Effluent to Disc Filters	14.391	479,693	606,976
Final Effluent Discharge	7.505	250,000	382,000
Applebrook Golf Course	4.204	140,146	151,880

On April 15<sup>th</sup>, the field flow meter appears to have begun recording increasingly elevated flows as compared to the flow meter measuring flow to the SBRs. The flow meter has been scheduled for additional troubleshooting. In consideration of the erroneous elevated flow readings, the flow measurements to the SBRs will be utilized for the influent supplemental form and Chapter 94 report.

**Minor Preventative Maintenance**

Flushed chemical feed lines to the SBRs.

Cleaned piping within SBR building

**BIG FISH ENVIRONMENTAL SERVICES, INC. 1554 Paoli Pike #262, West Chester PA 19380-6102**



**RCSTP Monthly Operations  
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April 2018**

Cleaned final effluent weir trough daily

Skimmed surface of disc filters daily

Drained and cleaned disc filters weekly

**Look Ahead Preventative Maintenance Activities**

Installation of the LDO probes and controls for SBRs is planned when the weather becomes warmer.

**DRAFT**  
**EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY**  
**MEETING MINUTES**  
**April 9, 2018**

The East Goshen Township Municipal Authority held their regular public meeting on Monday, March 12, 2018 at 7:00 pm at the East Goshen Township building. Members in attendance were: Chairman Jack Yahraes, Kevin Cummings, and Phil Mayer. Also in attendance were: Mark Miller (Director of Public Works), Jon Altshul (Assistant Township Manager), Carmen Battavio (Board of Supervisors), Patrick McKenna (attorney), Mike Ellis (Pennoni), Scott Towler (Big Fish Environmental) and Walter Wujcik (Conservancy Board).

**COMMON ACRONYMS:**

<i>BFES – Big Fish Environmental Services</i>	<i>MA- Municipal Authority</i>
<i>BOS – Board of Supervisors</i>	<i>NPDES – National Pollutant Discharge Elimination System</i>
<i>CB – Conservancy Board</i>	<i>PC – Planning Commission</i>
<i>DEP – Department of Environmental Protection</i>	<i>PM – Prevention Maintenance</i>
<i>EPA – Environmental protection Agency</i>	<i>PR – Park &amp; Recreation Board</i>
<i>HC – Historical Commission</i>	<i>RCSTP – Ridley Creek Sewer Treatment Plant</i>
<i>I&amp;I – Inflow &amp; Infiltration</i>	<i>SBR – Sequencing Batch Reactor</i>
<i>LCSTP – Lockwood Chase Sewer Treatment Plant</i>	<i>SSO – Sanitary System Overflow</i>
	<i>WAS – Waste Activated Sludge</i>

**Call to Order & Pledge of Allegiance**

Jack called the meeting to order at 7:00 pm and led those present in the Pledge of Allegiance. There was a moment of silence to remember our troops and first responders. Jack asked if anyone would be recording the meeting. There was no response.

**Chairman's Report**

Phil attended the March meeting of the West Goshen Sewer Authority and Jack attended the April meeting. Jack reported that West Goshen is discussing sewer rate increases of between 42% and 51% up to \$98 per quarter. He added that West Goshen still does not have inter-municipal agreements signed with either Westtown or West Whiteland.

**Sewer Reports**

**1. Director of Public Works, Mark Miller's report for January:**

Monthly Flows: The average daily flow to West Goshen was 786,000 gallons per day. No problems to report.

Meters: The meters are being read on a daily basis with no problems to report.

C.C. Collection: We have been busy inspecting the collection system and repairing the cleanouts and vent caps. We have replaced 100+ caps and vents to date. The spray-rocked manholes have been visually inspected and look good.

R.C. Collection: The pump station has been visited on a daily basis; the wet well was power washed and vacuumed. We are conducting lateral inspections in a number of neighborhoods.

R.C. Plant: The motorized control center blower at the plant has been tripping out, and Lenni was called in to correct the problem. The filter feed pump #2 was pulled for repairs and two more caustic soda totes were dropped off.

Alarms: We responded to 23 alarms in March.

1        PA One Calls: We received 35 PA One calls in March

2  
3  
4  
5    **2. Pennoni Engineer's Report for April**

6        Mike Ellis provided his monthly

7    **Invoices**

- 8        • Invoices with summaries are provided under separate cover.

9    **Ridley Creek Sewage Treatment Plant (RCSTP)**

- 10       • Caustic soda pilot study – The trial began on February 28 and will continue for another six  
11       week. Initial results are positive and the caustic feed rate is less than half of what was  
12       expected.

13   **Reservoir Road Pump Station**

- 14       • Mike provided Jon with the final engineering report and design documents.  
15       • Mike will resend a listing of the permits, expiration dates, and renewal deadlines.

16   **RCSTP and Pump Stations' O&M Manual**

- 17       • We recommend the Manual be revisited in July-August 2018 to determine if updates are  
18       needed and/or if new information has become available to incorporate.

19  
20   **Supplee Valley Pipe Lining**

- 21       • SWERP completed lining of all contracted sewers on February 21. They performed post-  
22       construction TV videos of the lined sewers. We have reviewed the videos and have found the  
23       work acceptable. However, 7 laterals were observed to have active flow coming from up the  
24       lateral and there were 6 new infiltration sources at connection joints between laterals and the  
25       sewer main. The PW Department inspected 7 laterals via TV inspection and found one to  
26       have a new infiltration source and another house to have a leaky fixture inside. The other 5  
27       laterals were dry. SWERP provided a quote of \$13,570 to install 6 cured-in-place lateral  
28       connection "saddle" repairs and one lateral cured-in-place spot repair.

- 29       • There is a significant amount of infiltration that has been identified in this area of the sewer  
30       system during this project. Based on visual observations, we estimate that the project may be  
31       addressing nearly 100,000 gpd of infiltration sources. We will attempt to quantify the  
32       reduction via meter analysis following the completion of work.

- 33       • SWERP will be onsite this week to perform the change orders previously approved, at a cost  
34       of approximately \$19,000.

35   **Barkway Pump Station Grinder**

- 36       • We completed construction plans for the installation of the Muffin Monster and submitted  
37       them to the Township for review. The grinder is proposed inside the existing wet well and the  
38       hydraulic power pack is proposed inside the generator/controls building.

### **Ashbridge Pump Station Force Main**

- Test pits will be performed to identify backfill conditions along Manley Road with one test pit on Edith Road, as recommended by the Municipal Authority, when weather permits. We coordinated with Mark Miller on the scope of these test pits. *No update since our last report.*

### **Tallmadge Drive Sewer Main Replacement**

- We prepared an existing conditions plan of the roadway and sanitary sewer based on our field survey, and we reviewed the Township's sewer videos. A portion of the sewer has a severe sag, and we have identified the approximate extent of repair required.
- The three options under consideration at this time are to: (1) replace only the most severe sag which is believed to be approximately 40 LF of pipe; (2) replace the full length of pipe from manhole to manhole to provide a consistently sloped pipe for the entire run to eliminate two other sags; or (3) replace the full length of sewer run plus the next downstream sewer run and the intermediate manhole in order to improve the very flat slope of the subject pipe.
- We provided an opinion of probable construction costs to the Township for Option #3, consisting of replacement of 545 linear feet of pipe and one manhole at a cost between \$70,000 and \$86,000.

### **I&I Support and Reporting**

- We finalized and issued the semi-annual I&I report #17. The report showed high flows in the Chester Creek Interceptor between Paoli Pike and East Strasburg Rd and that the Supplee Valley sewer lining project addressed much of that I&I. Additionally, the report raised concerns about the reliability and maintenance cost of portable meters in measuring flows.

### **Chapter 94 Reports**

- The reports for the Ridley Creek and West Goshen Service Areas are complete and were provided to the Township

### **New Connections**

- We reviewed a plan for a new residential sewer connection with grinder pump at 1506 Meadowbrook Lane.

### **West Goshen Sewer System Consultation**

- No activity since last report.

**3. Big Fish Environmental Services** – Scott reported that the plant is running well. He noted that later this month new UV lighting will be installed and that the repaired centrifuge will be assembled. He added that he was contacted by DEP concerning the NPDES permit for Applebrook Golf Course, which may have expired. Scott will follow up with DEP and Jared Viarengo concerning the permit.

### **Approval of Minutes**

Phil made a motion to approve the minutes of the March 12, 2018 meeting as submitted. Kevin seconded. The motion passed 3-0.

#### **Approval of Invoices**

1. Kevin made a motion to approve the following Pennoni invoices:

- a. Pennoni #794736 \$ 416.00
- b. Pennoni #794738 \$ 3,452.34
- c. Pennoni #794739 \$ 3,822.00
- d. Pennoni #794740 \$ 2,176.50
- e. Pennoni #794741 \$ 3,184.00

Phil seconded the motion. The motion passed unanimously.

2. Phil moved to approve payment of the Gawthrop Invoice #192549 for \$400.00. Kevin seconded the motion. The motion passed unanimously.

#### **Liaison Reports**

Conservancy Board - Walter reminded everyone that Keep East Goshen Beautiful Day will be held on Saturday April 21, at 8:00 am. He added that there will be a spring planting along East Boot Road.

#### **Financial Reports**

Jon reported that the Municipal Authority recorded \$30,490 in income (a \$30,000 transfer from the sewer fund, one connection fee, pine rock revenue and interest) and \$23,609 in expenses (including the Q1 2018 administrative overhead charge in the amount of \$8,160 and a \$3,664 credit from West Goshen for overpayment of a capital invoice), for a positive variance of \$6,881. As of March 31<sup>st</sup>, the fund balance was \$97,575, of which \$72,288 is in the main construction account (most of which represents the 2013 note) and the remaining \$25,286 is in the operating account with M&T. He also provided a copy of the MA's 2017 Concise Financial Statement.

#### **New Business**

Mark explained that due to the complexity of the sewer line repairs on Tallmadge Drive, as well as limited in-house resources, he would prefer if the project could be put out to bid. Jon explained that the \$30,000 was budgeted for this purpose in 2018, but that by outsourcing the project, the Municipal Authority would save some money by not having to incur Public Works labor and vehicle use.

Phil made a motion to authorize Pennoni to bid out the sewer line repair project on Tallmadge Drive. Jack seconded the motion. The motion passed 3-0.

Jon noted that Township staff was proposing a 1%-2% increase in sewer rates at the April 10<sup>th</sup> BOS meeting. This would correspond with a \$2.11/quarter increase for the average single family property.

#### **Adjournment**

There being no further business, Phil moved to adjourn the meeting. Kevin seconded the motion. The meeting was adjourned at 8:20 p.m. The next regular meeting will be held on Monday, May 14, 2018 at 7:00 pm.

1  
2 Respectfully submitted,  
3  
4  
5  
6 Jon Altshul  
7 Recording Secretary



# INVOICE

Newark, DE  
302-655-4451 Fax: 302-654-2895

Remit Payment To:  
Pennoni  
P.O. Box 827328  
Philadelphia, PA 19182-7328

East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199  
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 799471  
Invoice Date : 04/26/2018  
Project : EGMA1504  
Project Name : Reservoir Rd PS Design &  
Permitting

For Services Rendered through: 4/15/2018

Finalized and submitted bid document to Township.

Phase : 11 -- Final Design

Total Phase : 11 -- Final Design

Labor :	45.50
Expense :	0.00
Phase Total :	45.50

Amount Due This Invoice

\$45.50

Phase : 11 -- Final Design

Labor

Class	Hours/ Units	Rate	Amount
Associate Professional	0.50	91.00	45.50
Labor Total:	0.50		45.50

Total Phase : 11 -- Final Design

Labor :	\$45.50
Expense :	\$0.00

Total Project : EGMA1504 -- Reservoir Rd PS Design & Permitting

Labor :	\$45.50
Expense :	\$0.00

*Jon*  
4/27/18

*FINAL  
INVOICE*



East Goshen Municipal Authority  
EGMA1504 Invoice Summary  
Invoice Date 4/26/2018

**Project:** EGMA1504  
**Pennoni Job No.:** Reservoir Rd PS Design & Permitting  
**Invoice No:** 799471  
**Invoice Period:** 3/19/2018 to 4/15/2018  
**Initial Authorization:** \$ 167,120.00 **Date:** 4/26/2018  
**Contract Amount:** \$ 193,120.00  
**Previously Invoiced:** \$ 193,065.75  
**Current Invoice:** \$ 45.50  
**Invoiced to Date (\$):** \$ 193,111.25  
**Invoiced to Date (%):** 100.00%  
**Remaining Budget (\$):** \$ 8.75  
**Remaining Budget (%):** 0.00%

**Budget by Phase:**

Phase Name:	Final Design	Phase 11
Phase Budget:	\$ 65,463.75	
Previously Invoiced:	\$ 65,409.50	
Current Invoice:	\$ 45.50	
Invoiced to Date (\$):	\$ 65,455.00	
Invoiced to Date (%):	99.99%	
Remaining Budget (\$):	\$ 8.75	
Remaining Budget (%):	0.01%	

**Comments:** Finalized and submitted bid document to Township.

# Reservoir Road Pump Station Design & Permitting

## INVOICE SUMMARY

For Services Rendered through: 4/15/2018

Task No.	Activity	Contract Amount*	Invoiced Effort thru 9/17/2017	Remaining Budget (\$)	Remaining Budget (%)	Completed?
1	Concept Design	\$13,655.75	\$13,655.75	-	-	Yes
2	DEP WQM Pre-App. Meeting	\$1,300.00	\$1,300.00	-	-	Yes
3	Existing Conditions Survey	\$22,783.75	\$22,783.75	-	-	Yes
4	Sewer Stakeout in Easements	\$0.00	\$0.00	-	-	Scope eliminated
5	1636 Bow Tree Dr. Boundary Survey & Easement	\$4,020.00	\$4,020.00	-	-	Yes
6	Additional Boundary Surveys & Easements	\$0.00	\$0.00	-	-	Scope eliminated
7	Geotechnical Borings	\$4,000.00	\$4,000.00	-	-	Yes
8	Install Permanent Survey Benchmarks	\$0.00	\$0.00	-	-	Scope eliminated
9	Progress Design	\$29,450.00	\$29,450.00	-	-	Yes
10	Infiltration Testing	\$1,800.00	\$1,800.00	-	-	Yes
11	Final Design	\$65,463.50	\$65,455.00	\$8.50	~0.0%	Yes
12	Permitting	\$50,647.00	\$50,647.00	-	-	Yes
TOTAL		\$193,120.00	\$193,111.50	\$8.50	~0.0%	

\*After 12/14/2015 approved re-allocation of task budgets, 5/9/2016 approval of \$7,000 supplement, 7/11/16 approval of \$4,000 supplement, 11/14/16 approval of \$5,000 supplement, 4/10/17 approval of \$4,000 supplement, and 6/12/17 approval of \$6,000 supplement.



# INVOICE

Newark, DE  
302-655-4451 Fax: 302-654-2895

Remit Payment To:  
**Pennoni**  
P.O. Box 827328  
Philadelphia, PA 19182-7328

East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199  
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 799466  
Invoice Date : 04/26/2018  
Project : EGMAU17007  
Project Name : Suplee Valley CIPPL Construction

For Services Rendered through: 4/15/2018

Construction phase office support and coordination for saddle connection installations. Part-time construction observation for saddle connections.

Phase : \*\*\*\* -- Professional Services

Total Phase : \*\*\*\* -- Professional Services

Labor :	510.75
Expense :	0.00
Phase Total :	510.75

Amount Due This Invoice

\$510.75

Fee :	15,000.00
Prior Billings :	12,308.25
Current Billings :	510.75
Total Billings :	12,819.00

Phase : \*\*\*\* -- Professional Services

Labor

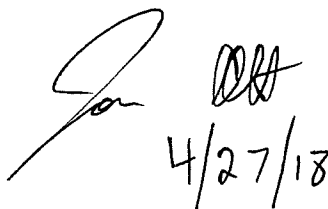
Class	Hours/ Units	Rate	Amount
Authority Engineer	1.25	123.00	153.75
Associate Professional	0.50	91.00	45.50
Sr. Engineering Technician	3.50	89.00	311.50
Labor Total:	5.25		510.75

Total Phase : \*\*\*\* -- Professional Services

Labor :	\$510.75
Expense :	\$0.00

Total Project : EGMAU17007 -- Suplee Valley CIPPL Construction

Labor :	\$510.75
Expense :	\$0.00

  
4/27/18

East Goshen Municipal Authority  
EGMAU17007 Invoice Summary  
Invoice Date 4/26/2018

**Project:** EGMAU17007  
**Pennoni Job No.:** Suplee Valley CIPPL Construction  
**Invoice No:** 799466  
**Invoice Period:** 3/19/2018 to 4/15/2018  
**Initial Authorization:** \$ 12,000.00 **Date:** 4/26/2018  
**Contract Amount:** \$ 15,000.00  
**Previously Invoiced:** \$ 12,308.25  
**Current Invoice:** \$ 510.75  
**Invoiced to Date (\$):** \$ 12,819.00  
**Invoiced to Date (%):** 85%  
**Remaining Budget (\$):** \$ 2,181.00  
**Remaining Budget (%):** 15%

**Budget by Phase:**

**Phase Name:** Suplee Valley CIPP  
**Phase Budget:** \$ 15,000.00  
**Previously Invoiced:** \$ 12,308.25  
**Current Invoice:** \$ 510.75  
**Invoiced to Date (\$):** \$ 12,819.00  
**Invoiced to Date (%):** 85%  
**Remaining Budget (\$):** \$ 2,181.00  
**Remaining Budget (%):** 15%

**Comments:** Construction phase office support and coordination for saddle connection installations. Part-time construction observation for saddle connections.



# INVOICE

Newark, DE  
302-655-4451 Fax: 302-654-2895

Remit Payment To:  
**Pennoni**  
P.O. Box 827328  
Philadelphia, PA 19182-7328

East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199  
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 799477  
Invoice Date : 04/26/2018  
Project : EGMAU18001  
Project Name : 2018 General Services

---

For Services Rendered through: 4/15/2018

Phase \*\*\*\* Professional Services - Continued coordination of RCSTP caustic soda trial including additional chemical supply to extend trial, review of sampling results, reduction of chemical feed rate, and conceptual planning for future permanent transition to caustic treatment. Prepared April Engineer's Report, and prepared for and attended April MA meeting. Researched WQM permit for Applebrook following DEP notification of permit expiration. Analysis and charting of historical Chester Creek and Ridley Creek systems' flows for quantification of reductions from ongoing sewer system repairs; submitted Chester Creek chart of 8 years of flow history to PW Director.

Phase 01 Tallmadge Drive Sewer Replacement - Performed budgeting, programming, design and bidding services including cost estimates, review of sewer videos, scoping alternatives, material acquisition approach, scheduling, design, preparation of plans and bid document, and PennBID solicitation setup.

**Phase : \*\*\*\* -- Professional Services**

**Total Phase : \*\*\*\* -- Professional Services**

Labor :	2,076.00
Expense :	0.00
Phase Total :	2,076.00

**Phase : 01 -- Tallmadge Drive Sewer Replacement**

**Total Phase : 01 -- Tallmadge Drive Sewer Replacement**

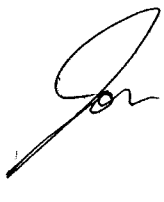
Labor :	3,596.50
Expense :	0.00
Phase Total :	3,596.50

**Amount Due This Invoice**

---

**\$5,672.50**

Fee :	18,000.00
Prior Billings :	4,343.25
Current Billings :	5,672.50
Total Billings :	10,015.75

  
4/25/18

Continued on next page...

INVOICES DUE ON RECEIPT. Invoices outstanding over 30 days will have a Service Charge of 1 1/2% per month.

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East Goshen Municipal Authority  
EGMAU18001 Invoice Summary  
Invoice Date 4-26-2018

**Project:** EGMAU18001  
**Pennoni Job No.:** 2018 General Services  
**Invoice No:** 799477  
**Invoice Period:** 3/19/2018 to 4/15/2018  
**Initial Authorization:** \$ 18,000.00 **Date:** 4/26/2018  
**Contract Amount:** \$ 18,000.00  
**Previously Invoiced:** \$ 4,343.25  
**Current Invoice:** \$ 5,672.50  
**Invoiced to Date (\$):** \$ 10,015.75  
**Invoiced to Date (%):** 56%  
**Remaining Budget (\$):** \$ 7,984.25  
**Remaining Budget (%):** 44%

**Budget by Phase:**

**Phase Name:** 2018 General Services  
**Phase Budget:** \$ 18,000.00  
**Previously Invoiced:** \$ 4,343.25  
**Current Invoice:** \$ 5,672.50  
**Invoiced to Date (\$):** \$ 10,015.75  
**Invoiced to Date (%):** 56%  
**Remaining Budget (\$):** \$ 7,984.25  
**Remaining Budget (%):** 44%

**Comments:** Phase \*\*\*\* Professional Services - Continued coordination of RCSTP caustic soda trial including additional chemical supply to extend trial, review of sampling results, reduction of chemical feed rate, and conceptual planning for future permanent transition to caustic treatment. Prepared April Engineer's Report, and prepared for and attended April MA meeting. Researched WQM permit for Applebrook following DEP notification of permit expiration. Analysis and charting of historical Chester Creek and Ridley Creek systems' flows for quantification of reductions from ongoing sewer system repairs; submitted Chester Creek chart of 8 years of flow history to PW Director.

Phase 01 Tallmadge Drive Sewer Replacement - Performed budgeting, programming, design and bidding services including cost estimates, review of sewer videos, scoping alternatives, material acquisition approach, scheduling, design, preparation of plans and bid document, and PennBID solicitation setup.

...Continued from previous page

**Phase : \*\*\*\* -- Professional Services**

<b>Labor</b>	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
<i>Class</i>			
Authority Engineer	4.75	123.00	584.25
Senior Professional	10.75	117.00	1,257.75
Project Professional	0.50	104.00	52.00
Associate Professional	2.00	91.00	182.00
<b>Labor Total:</b>	<b>18.00</b>		<b>2,076.00</b>

**Total Phase : \*\*\*\* -- Professional Services****Labor : \$2,076.00****Expense : \$0.00****Phase : 01 -- Tallmadge Drive Sewer Replacement**

<b>Labor</b>	<i>Hours/ Units</i>	<i>Rate</i>	<i>Amount</i>
<i>Class</i>			
Authority Engineer	5.75	123.00	707.25
Senior Professional	21.00	117.00	2,457.00
Associate Professional	4.75	91.00	432.25
<b>Labor Total:</b>	<b>31.50</b>		<b>3,596.50</b>

**Total Phase : 01 -- Tallmadge Drive Sewer Replacement****Labor : \$3,596.50****Expense : \$0.00****Total Project : EGMAU18001 -- 2018 General Services****Labor : \$5,672.50****Expense : \$0.00**



# INVOICE

Newark, DE  
302-655-4451 Fax: 302-654-2895

Remit Payment To:  
**Pennoni**  
P.O. Box 827328  
Philadelphia, PA 19182-7328

East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199  
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 799467  
Invoice Date : 04/26/2018  
Project : EGMAU18002  
Project Name : 2018 I&I Support and Reports

For Services Rendered through: 4/15/2018

Submitted semi-annual sewer system I&I status report #17.

Phase : \*\*\*\* -- Professional Services

Total Phase : \*\*\*\* -- Professional Services

Labor :	30.75
Expense :	0.00
Phase Total :	30.75

Amount Due This Invoice

\$30.75

Fee :	11,000.00
Prior Billings :	2,409.75
Current Billings :	30.75
Total Billings :	2,440.50

Phase : \*\*\*\* -- Professional Services

Labor

Class

Authority Engineer

Labor Total:

Hours/ Units	Rate
0.25	123.00
0.25	

Amount

30.75

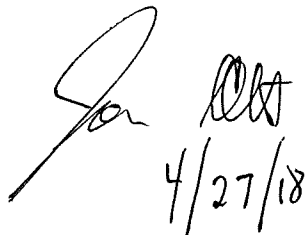
30.75

Total Phase : \*\*\*\* -- Professional Services

Labor :	\$30.75
Expense :	\$0.00

Total Project : EGMAU18002 -- 2018 I&I Support and Reports

Labor :	\$30.75
Expense :	\$0.00

  
4/27/18



East Goshen Municipal Authority  
EGMAU18002 Invoice Summary  
Invoice Date 4-26-2018

**Project:** EGMAU18002  
**Pennoni Job No.:** 2018 I&I Support and Reports  
**Invoice No:** 799467  
**Invoice Period:** 2/12/2018 to 4/15/2018  
**Initial Authorization:** \$ 11,000.00 **Date:** 4/26/2018  
**Contract Amount:** \$ 11,000.00  
**Previously Invoiced:** \$ 2,409.75  
**Current Invoice:** \$ 30.75  
**Invoiced to Date (\$):** \$ 2,440.50  
**Invoiced to Date (%):** 22%  
**Remaining Budget (\$):** \$ 8,559.50  
**Remaining Budget (%):** 78%

**Budget by Phase:**

**Phase Name:** 2018 I&I Support and Reports  
**Phase Budget:** \$ 11,000.00  
**Previously Invoiced:** \$ 2,409.75  
**Current Invoice:** \$ 30.75  
**Invoiced to Date (\$):** \$ 2,440.50  
**Invoiced to Date (%):** 22%  
**Remaining Budget (\$):** \$ 8,559.50  
**Remaining Budget (%):** 78%

**Comments:** Submitted semi-annual sewer system I&I status report #17.



# INVOICE

Newark, DE  
302-655-4451 Fax: 302-654-2895

Remit Payment To:  
**Pennoni**  
P.O. Box 827328  
Philadelphia, PA 19182-7328

East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199  
Attention: Louis F. Smith, Twp Mgr.

Invoice # : 799468  
Invoice Date : 04/26/2018  
Project : EGMAU18003  
Project Name : 2017 Chapter 94 Reports

**For Services Rendered through: 4/15/2018**

Continued data gathering, analysis and preparation of Chapter 94 Reports for West Goshen (Chester Creek) and Ridley Creek service areas. Finalized and submitted Chapter 94 reports for Westtown, West Goshen (Chester Creek) and Ridley Creek service areas.

This is the FINAL invoice unless DEP provides any comments or questions.

**Phase : \*\*\*\* -- Professional Services**

**Total Phase : \*\*\*\* -- Professional Services**

Labor :	3,408.25
Expense :	0.00
Phase Total :	3,408.25

**Amount Due This Invoice**

**\$3,408.25**

Fee :	11,000.00
Prior Billings :	5,698.75
Current Billings :	3,408.25
Total Billings :	9,107.00

**Phase : \*\*\*\* -- Professional Services**

**Labor**

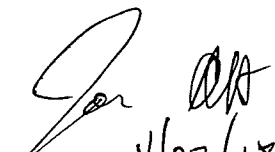
Class	Hours/ Units	Rate	Amount
Authority Engineer	8.50	123.00	1,045.50
Senior Professional	9.50	117.00	1,111.50
Associate Professional	13.75	91.00	1,251.25
<b>Labor Total:</b>	<b>31.75</b>		<b>3,408.25</b>

**Total Phase : \*\*\*\* -- Professional Services**

Labor :	\$3,408.25
Expense :	\$0.00

**Total Project : EGMAU18003 -- 2017 Chapter 94 Reports**

Labor :	\$3,408.25
Expense :	\$0.00

  
4/27/18

FINAL INVOICE, PROVIDED  
DEP HAS NO  
COMMENTS

East Goshen Municipal Authority  
EGMAU18003 Invoice Summary  
Invoice Date 4/26/2018

**Project:** EGMAU18003  
**Pennonni Job No.:** 2017 Chapter 94 Reports  
**Invoice No:** 799468  
**Invoice Period:** 3/19/2018 to 4/15/2018  
**Initial Authorization:** \$ 11,000.00 **Date:** 4/26/2018  
**Contract Amount:** \$ 11,000.00  
**Previously Invoiced:** \$ 5,698.75  
**Current Invoice:** \$ 3,408.25  
**Invoiced to Date (\$):** \$ 9,107.00  
**Invoiced to Date (%):** 83%  
**Remaining Budget (\$):** \$ 1,893.00  
**Remaining Budget (%):** 17%

**Budget by Phase:**

**Phase Name:** 2017 Chapter 94 Reports  
**Phase Budget:** \$ 11,000.00  
**Previously Invoiced:** \$ 5,698.75  
**Current Invoice:** \$ 3,408.25  
**Invoiced to Date (\$):** \$ 9,107.00  
**Invoiced to Date (%):** 83%  
**Remaining Budget (\$):** \$ 1,893.00  
**Remaining Budget (%):** 17%

**Comments:** Continued data gathering, analysis and preparation of Chapter 94 Reports for West Goshen (Chester Creek) and Ridley Creek service areas. Finalized and submitted Chapter 94 reports for Westtown, West Goshen (Chester Creek) and Ridley Creek service areas.

This is the FINAL invoice unless DEP provides any comments or questions.



Gawthrop Greenwood, PC  
*Attorneys at Law*

17 East Gay Street, Suite 100 (p) 610-696-8225  
West Chester, PA 19381-0562 (f) 610-344-0922  
gglaw@gawthrop.com www.gawthrop.com

East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester PA 19380

Page: 1  
05/07/2018  
Client No: 6604-001R  
Invoice No. 194208

General Authority Services

Fees

		Hours	
04/02/2018			
PMM	Email from M Ellis I&I report.	0.20	
04/06/2018			
PMM	Email from S Smith regarding materials for meeting.	0.20	
04/09/2018			
PMM	Review meeting materials in preparation for Authority meeting;	2.00	
	Attend Authority meeting.		
	For Current Services Rendered	2.40	480.00

Recapitulation

<u>Timekeeper</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Total</u>
Patrick M. McKenna	2.40	\$200.00	\$480.00

Previous Balance \$380.00

Total Current Charges 480.00

04/20/2018 Payment -380.00

Balance Due \$480.00

To ensure proper credit, please write client number on  
your check when returning payment. Thank You.  
A finance charge of 1.25% per month (15% annually) may be  
charged on balances not paid 60 days after the invoice date.

# Memo

---

To: Municipal Authority  
From: Jon Altshul  
Re: MA April Financial Report  
Date: May 9, 2018

---

In April, the Municipal Authority recorded \$56.85 in income (interest net of bank fees for Positive Pay) and \$75,104.38 in expenses (primarily an invoice of \$72,288 for West Goshen), for a negative variance of \$75,047.53. To clarify, the total West Goshen invoice was for \$315,355, the balance of which (\$243,067) was paid from the sewer fund portion of the Township's 2017 GO Bonds.

As of April 30<sup>th</sup>, the fund balance was \$22,527. Technically, there was a balance of \$71.30 in the capital account from proceeds of the 2013 MA notes, which represents interest that accrued last month after the account had been drawn down to \$0. We have now transferred that amount to the MA operating account, meaning that moving forward the MA's finances will be greatly simplified!

EAST GOSHEN TOWNSHIP  
1580 PAOLI PIKE  
WEST CHESTER, PA  
Municipal Authority  
APRIL 2018

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
---------------	--------	---------------	----------------------	---------------------

**MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - 2013 NOTES (FULTON BANK) 72,288.38**

**CAPITAL:**

REVENUE				
INTEREST EARNED - CONSTRUCTION	07341 1020	50	71.30	613.91
TOTAL REVENUE		50	71.30	613.91

**EXPENSES**

C.C. CAPITAL - COLLECTION	07424 7420	0	0.00	0.00
RESERVOIR PUMP STATION - ENGINEER	07428 1000	0	0.00	142.50
RESERVOIR PUMP STATION CONSTRUCTION	07428 2000	0	0.00	0.00
WEST GOSHEN CAPITAL	07429 6100	59,736	72,288.38	102,339.08

**TOTAL EXPENSES**

	59,736	72,288.38	102,481.58
--	--------	-----------	------------

**NET CAPITAL**

	(59,686)	(72,217.08)	(101,867.67)
--	----------	-------------	--------------

**MUNICIPAL AUTHORITY ENDING FUND BALANCE DNB CAPITAL ACCOUNT 71.30**

FULTON CAPITAL

EAST GOSHEN TOWNSHIP  
1580 PAOLI PIKE  
WEST CHESTER, PA  
Municipal Authority  
APRIL 2018

Account Title	Acct #	Annual Budget	Month To Date Actual	Year To Date Actual
<b>OPERATING:</b>				
<b>MUNICIPAL AUTHORITY BEGINNING FUND BALANCE - OPERATING (BB&amp;T)</b>				
			<b>25,286.40</b>	
<b>REVENUE</b>				
INTEREST EARNINGS	07341 1000	10	(14.45)	(27.93)
C.C. TAPPING FEES	07364 1100	8,000	0.00	0.00
R.C. TAPPING FEES	07364 1110	2,000	0.00	0.00
CONNECTION FEES - SEWER	07364 1130	1,692	0.00	1,127.52
MISCELLANEOUS REVENUE	07380 1000	0	0.00	564.48
TRANSFER FROM SEWER OPERATING	07392 0500	75,853	0.00	30,000.00
<b>TOTAL REVENUE</b>		<b>87,555</b>	<b>(14.45)</b>	<b>31,664.07</b>
<b>EXPENSES</b>				
ADMINISTRATIVE WAGES	07424 1400	32,411	0.00	8,160.33
MISCELLANEOUS EXPENSE	07424 3000	2,500	0.00	100.00
MUNIC.AUTH.-AUDITING	07424 3110	9,384	2,436.00	9,400.00
ENGINEERING SERVICES	07424 3130	43,260	0.00	30,240.14
LEGAL SERVICES	07424 3140	0	380.00	1,700.00
M.C.-DVRFA-DEBT SERVICE	07471 1000	0	0.00	0.00
M.C.-DVRFA-INTEREST PAYMNT	07472 1010	0	0.00	0.00
<b>TOTAL EXPENSES</b>		<b>87,555</b>	<b>2,816.00</b>	<b>49,600.47</b>
<b>NET OPERATING</b>		<b>0</b>	<b>(2,830.45)</b>	<b>(17,936.40)</b>
<b>MUNICIPAL AUTHORITY ENDING FUND BALANCE - OPERATING</b>				
			<b>22,455.95</b>	
<b>MUNICIPAL AUTHORITY ENDING FUND BALANCE CAPITAL + OPERATING</b>				
			<b>22,527.25</b>	

## East Goshen Township General Ledger

Report Date 05/09/18

GL Transaction Details

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MGRP18 run by BRIAN

10 : 27 AM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07341-1000		INTEREST EARNINGS			0.00				
	1801	JE 61740		0.31		02/02/18	INTEREST		INTEREST EARNED JANUARY 2018 07 FUND
	1801		0.00	0.31	-0.31				
	1802	61932		0.20		02/14/18	INTEREST		INTEREST ADJ. FROM JAN.2018 7105.2000
		62159		0.54		03/05/18	INTEREST		INTEREST EARNED FEBRUARY 2018 07 FUND
	1802		0.00	0.74	-1.05				
	1803	EX 62192	15.00			03/06/18	62192 1		REIMBURSE S/R FOR BANK FEES INTEREST EARNINGS
		JE 62535		0.47		04/02/18	INTEREST		INTEREST EARNED MARCH 2018 07 FUND
	1803		15.00	0.47	13.48				
	1804	EX 62551	15.00			04/02/18	62551 1		REIMB.S/R FOR 3/2018 BANK FEES INTEREST EARNINGS
		JE 62904		0.55		05/01/18	INTEREST		INTEREST EARNED APRIL 2018 07 FUND
	1804		15.00	0.55	27.93				
07341-1000	****	*** ****	30.00	2.07	27.93				
07341-1020		INTEREST EARNED - CONSTRUCTION			0.00				
	1801	61740		391.64		02/02/18	INTEREST		INTEREST EARNED JANUARY 2018 07 FUND
	1801		0.00	391.64	-391.64				
	1802	62159		69.31		03/05/18	INTEREST		INTEREST EARNED FEBRUARY 2018 07 FUND
	1802		0.00	69.31	-460.95				
	1803	62535		81.66		04/02/18	INTEREST		INTEREST EARNED MARCH 2018 07 FUND



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Report Date 05/09/18

GL Transaction Details

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MGRP18 run by BRIAN

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1803			0.00	81.66	-542.61				
1804		62904		71.30		05/01/18	INTEREST		INTEREST EARNED APRIL 2018 07 FUND
1804			0.00	71.30	-613.91				
07341-1020	****	*** ****	0.00	613.91	-613.91				
07364-1130					0.00				
		CONNECTION FEES - SEWER							
1801	CR	61617		423.00		01/25/18	2572	10606	1 STOFFLET, MICHAEL
1801			0.00	423.00	-423.00				
1802		61894		423.00		02/13/18	494	10607	1 JACOBS, ROBERT & CHERYL
		62079		423.00		02/27/18	148	10605	1 GEORGE SMITH & CHRISTINA CONLE
	JE	61900	282.24			02/13/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT JACOBS & STOFFLET INTEREST
		62080	141.12			02/27/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
1802			423.36	846.00	-845.64				
1803	CR	62407		423.00		03/23/18	0011373243	10608	1 PAPPANO, JOSEPH & PATRICIA
	JE	62411	141.12			03/23/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT RC214 PAPPANO
1803			141.12	423.00	-1,127.52				
07364-1130	****	*** ****	564.48	1,692.00	-1,127.52				
07380-1000					0.00				
		MISCELLANEOUS REVENUE							
1802		61900		282.24		02/13/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT JACOBS & STOFFLET INTEREST
		62080		141.12		02/27/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT
1802			0.00	423.36	-423.36				
1803		62411		141.12		03/23/18	PINE ROCK		ANNUAL PINE ROCK INSTALLMENT RC214 PAPPANO

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MGRP18 run by BRIAN

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1803			0.00	141.12	-564.48				
07380-1000	****	*** ****	0.00	564.48	-564.48				
07392-0500	TRANSFER FROM SEWER OPERATING				0.00				
		62490		30,000.00		03/29/18	XFER		XFER \$ FROM SEWER TO MUNICIPAL TO COVER EXPENSES
1803			0.00	30,000.00	-30,000.00				
07392-0500	****	*** ****	0.00	30,000.00	-30,000.00				
07424-1400	ADMINISTRATIVE WAGES				0.00				
		CD 62424	8,160.33			03/26/18	3121		425 EAST GOSHEN TOWNSHIP - GENERAL 1ST QTR.2018 REIMBURSEMENT - MA
1803			8,160.33	0.00	8,160.33				
07424-1400	****	*** ****	8,160.33	0.00	8,160.33				
07424-3000	MISCELLANEOUS EXPENSE				0.00				
		1801 61728	100.00			01/31/18	3114		3353 COMMONWEALTH FINANCING AUTHORITY GRANT APPLIC. DCED - WATER & SEW PROGRAM FOR BARKWAY
1801			100.00	0.00	100.00				
07424-3000	****	*** ****	100.00	0.00	100.00				
07424-3110	MUNIC.AUTH.-AUDITING				0.00				
		1803 62396	6,964.00			03/22/18	3120		808 MAILLIE FALCONIERO & CO. PROGRESS BILLING - M.AUTHORITY 2 FINANCIAL STATEMENTS
1803			6,964.00	0.00	6,964.00				

## East Goshen Township General Ledger

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MGRF18 run by BRIAN 10 : 27 AM

Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07424-3110	1804	CD 62732	2,436.00			04/17/18	3123	808	MAILLIE FALCONIERO & CO. EXAMINATION 2017 MA FINANCIAL ST
	1804		2,436.00	0.00	9,400.00				
07424-3110	****	*** ****	9,400.00	0.00	9,400.00				
07424-3130		ENGINEERING SERVICES			0.00				
	1801	61613	12,523.56			01/24/18	3113	1052	PENNONI ASSOCIATES INC. SERV.THUR 12/10/17 2017 GENERAL SERVICES
	1801		12,523.56	0.00	12,523.56				
	1802	61944	5,415.00			02/15/18	3115	1052	PENNONI ASSOCIATES INC. SERVICES THRU 1/14/18 -2017 GENE
		62032	552.50			02/22/18	3117	1052	PENNONI ASSOCIATES INC. SERVICE THRU 1/14/18 SUPPLEE VA
	1802		5,967.50	0.00	18,491.06				
	1803	62323	11,749.08			03/15/18	3118	1052	PENNONI ASSOCIATES INC. SERVICES THRU 2/11/18 2018 GEN.S
	1803		11,749.08	0.00	30,240.14				
07424-3130	****	*** ****	30,240.14	0.00	30,240.14				
07424-3140		LEGAL SERVICES			0.00				
	1801	61613	680.00			01/24/18	3112	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICES DEC. 2017 GEN.AUT
	1801		680.00	0.00	680.00				
	1802	62032	240.00			02/22/18	3116	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - JAN.2018 GEN.AUT
	1802		240.00	0.00	920.00				
	1803	62352	400.00			03/19/18	3119	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE - FEBRUARY 2018

## East Goshen Township General Ledger

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MGRP18 run by BRIAN

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Acct #	Per	Src Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
1803			400.00	0.00	1,320.00				
1804	62732		380.00			04/17/18	3122	528	GAWTHROP GREENWOOD & HALSTED LEGAL SERVICE 3/12/18
1804			380.00	0.00	1,700.00				
07424-3140	****	***	1,700.00	0.00	1,700.00				
07428-1000	RESERVOIR PUMP STATION - ENGINEER				0.00				
1802	62035		142.50			02/22/18	22016	1052	PENNONI ASSOCIATES INC. SERVICE THRU 1/14/18 RESERV.RD
1802			142.50	0.00	142.50				
07428-1000	****	***	142.50	0.00	142.50				
07429-6100	WEST GOSHEN CAPITAL				0.00				
1801	61614		30,050.70			01/24/18	22015	3843	WEST GOSHEN SEWER AUTHORITY 16.67% OF COST - ENHANCED CHEMIC ADDITION
1801			30,050.70	0.00	30,050.70				
1802	62035		3,664.01			02/22/18	22017	3843	WEST GOSHEN SEWER AUTHORITY 16.67% - ENHANCED CHEMICAL ADDIT & ANAEROBIC DIGESTER REPLACEMENT
1802			3,664.01	0.00	33,714.71				
1803	62343		-3,664.01			03/15/18	22017	3843	WEST GOSHEN SEWER AUTHORITY VOID CK. 2017
1803			-3,664.01	0.00	30,050.70				
1804	62689		72,288.38			04/13/18	22018	3843	WEST GOSHEN SEWER AUTHORITY 2017 SEWER SYSTEM REPAIR PROJECT .16667 % EAST GOSHEN SHARE
1804			72,288.38	0.00	102,339.08				

MGRP18 run by BRIAN10 : 27 AM

Acct #	Per	Src	Trx #	Debits	Credits	Beg/End Bal	Date	Check/Ref #	ID #	Name/Description
07429-6100	****	***	****	102,339.08	0.00	102,339.08				
Grand Total				152,676.53	32,872.46	119,804.07				

Source	Debits	Credits
JE	564.48	31,180.46
EX	30.00	0.00
CR	0.00	1,692.00
CD	152,082.05	0.00
	152,676.53	32,872.46

## MEMORANDUM

**TO:** Rick Smith, Mark Miller, Municipal Authority  
**CC:** John Altshul, Patrick McKenna  
**FROM:** Michael Ellis, PE  
**DATE:** 5/11/2018  
**SUBJECT:** Tallmadge Drive Sewer Replacement Bid Review

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The bids received on 5/8/18 resulted in a low bid of \$94,652.68 from Eagle Contracting, Inc. JMC Contracting and Trio Siteworks were next with bids of \$100,900 and \$110,155 respectively. The final bid received from DiRocco Bros., Inc. was \$320,810. The bid tabulation is attached.

The low bidder was at the very high end of our estimated cost range, but the bid prices did not include stone material (which the Township will provide), whereas our estimate did include stone. The additional cost of stone beyond the bid prices may be \$10,000 – \$15,000. Our opinion of probable cost is also attached for reference.

Since the bids were much higher than expected, we have contacted the bidders as well as some planholders that did not bid to identify why the pricing is in this range. The primary driver is that contractors are backlogged right now so they have either inflated the price or opted not to bid. Further, the small size of the project will not attract the large firms, and very small firms cannot bid it due to the insurance and bonding requirements, so there is a limited interested bidders' pool. There were also apparent misunderstandings about the Township purchasing the stone materials and having them delivered versus the contractor doing the hauling from the quarry. Others were concerned about the possibility of rock and extensive dewatering in the subgrade since the project was bid as "unclassified" excavation.

**We thereby recommend re-bidding the project with several changes to the scope and bid form in an effort to reduce costs.**

After our follow-up calls and review of the bids we offer the following options for consideration should the Authority wish to rebid the project. Based on our discussions with the contractors, some of these items may only have limited impact on the bid pricing.

1. Expand the project timeline to allow the work to be completed in the upcoming winter. Alternatively, extend the project to at least September 30, 2018. We anticipate a more flexible schedule allowing winter work could reduce the prices at least 10%. Extending to September is not likely to have a significant impact.
2. Classify excavation to cover potential additional work or delays due to required rock excavation by creating a separate bid item for rock removal, assuming any depth below the existing pipe is rock. Alternatively, the presence or absence of rock and depth of rock (if applicable) could be determined with more certainty by performing a couple of borings.
3. Add a dewatering clause and bid item to cover potential additional work or delays related to dewatering.
4. Perform a test pit to confirm the configuration of the existing drop connection being modified (may not be worth the effort given the low bid pricing for this item).

5. East Goshen could perform all pavement restoration work (8" BCBC followed by mill & overlay) to save the asphalt material mark-up and labor costs. Alternatively, the contractor could just be required to install 1.5-2" of hot mix as temporary paving, and the Township could return after 30-60 days to mill and install base course and permanent wearing course. Temporary paving by the contractor is not likely to provide a significant cost savings though since the contractor will still have to mobilize paving equipment.
6. Bypass pumping performed by the Township.
7. Reduce the insurance requirements to open the project up to smaller contractors.

We anticipate the primary cost savings would be in Item #1. The other items may provide a 10-15% savings combined.

#### Schedule

If the project is rebid, one potential schedule that would still allow for final paving before winter follows. If the project can be constructed in the winter, it could be bid out in the early fall instead.

- Re-advertise = May 18 and 21
- Bids Due = June 6
- Award = June 11 MA meeting
- Contract Execution = End of June
- Construction = anytime between July – September
- Final Paving by Township PW Department = October-November

East Goshen Township  
Solicitation: TD-2018 (Tallmadge Drive Sewer Replacement)  
Tabulation of Bids Received by 2:00 PM Eastern on May 8, 2018

ITEM NUMBER	DESCRIPTION	ESTIMATED QUANTITY/UNIT	Eagle Contracting, Inc.		JMC Contractors, Inc.		Trio Siteworks		DiRocco Bros., Inc.	
			UNIT COST	AMOUNT	UNIT COST	AMOUNT	UNIT COST	AMOUNT	UNIT COST	AMOUNT
1	Sanitary Sewer Bypass Pumping and Flow Control	1								
2	Furnish and Install Precast Concrete Manhole	1								
3	Furnish and Install 8" Dia. SDR26 PVC Gravity Sewer Pipe	527	\$5,235.68	\$5,235.68	\$5,800.00	\$5,800.00	\$7,500.00	\$7,500.00	\$8,500.00	\$8,500.00
4	Furnish and Install 4" Dia. SDR26 PVC Sewer Lateral	30	\$5,850.00	\$5,850.00	\$10,000.00	\$10,000.00	\$5,500.00	\$5,500.00	\$12,500.00	\$12,500.00
5	Connection to Existing Sanitary Sewer Manholes	1	\$146.00	\$76,942.00	\$150.00	\$79,050.00	\$165.00	\$86,955.00	\$530.00	\$279,310.00
6	Demolition of Drop Connection Concrete Encasement	1	\$65.00	\$1,950.00	\$2,000.00	\$2,000.00	\$65.00	\$1,950.00	\$350.00	\$10,500.00
7	Miscellaneous Excavation and Backfill	1	\$3,500.00	\$3,500.00	\$2,000.00	\$2,000.00	\$3,500.00	\$3,500.00	\$2,500.00	\$2,500.00
		1	\$900.00	\$900.00	\$800.00	\$800.00	\$4,500.00	\$4,500.00	\$5,000.00	\$5,000.00
		5	\$55.00	\$275.00	\$50.00	\$250.00	\$50.00	\$250.00	\$500.00	\$2,500.00
				\$94,652.68		\$100,900.00		\$110,155.00		\$320,810.00
TOTAL BASE BID (Based on Estimated Quantities)			10% of Bid		10% of Bid		10% of Bid		10% of Bid	
Bid Security Review										

We Declare this to be a true Tabulation of Bids Received on May 8, 2018 by East Goshen Township for Contract No. TD-2018.

PENNONI ASSOCIATES INC.



Michael J. Ellis, P.E., PA Reg. No. PE075139  
FOR: PENNONI ASSOCIATES INC.



**Tallmadge Drive Sanitary Sewer Replacement**  
**East Goshen Municipal Authority**  
**ENGINEERING OPINION OF PROBABLE CONSTRUCTION COST**  
**(Bid Construction with Contractor provided materials; Pavement Restoration by Township)**  
**April 4, 2018**

BID ITEM	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	TOTAL
1	10" Full Depth Pavement Demolition	SY	371	\$12.75	\$4,735.92
3	Demolish & Remove Manhole R-34 (9 ft depth)	EA	1	\$2,270.00	\$2,270.00
4	Misc. Excavation and Backfill	CY	5	\$70.00	\$350.00
5	Furnish and Install 8" SDR26 PVC (8-10' deep)	LF	537	\$108.00	\$57,996.00
6	Furnish and Install 4" SDR26 PVC Pipe for Lateral Replacement (8-10' depth) (6 Laterals @ 5 LF EA)	LF	30	\$101.00	\$3,030.00
7	Furnish and Install 4' Dia. Sanitary Manhole	EA	1	\$4,300.00	\$4,300.00
8	Core Drill Existing Manhole	EA	2	\$2,000.00	\$4,000.00
9	Bypass Pumping	LS	1	\$3,500.00	\$3,500.00
				Subtotal	\$80,182
				Bonds & Insurance	2.0% \$1,604
				Mobilization / Demobilization	5.0% \$4,009
				Subtotal	\$5,613
				TOTAL	\$85,795
				Total with Contingency of: 10%	\$94,374
				<b>SAY</b>	<b>\$95,000</b>

NOTE: An engineering opinion of probable construction cost is made by an engineer, and not by a professional construction cost estimator or construction contractor. The accuracy of the engineering opinion cannot be guaranteed.

May 11, 2018

EGMAU17007

Rick Smith, Township Manager  
East Goshen Township  
1580 Paoli Pike  
West Chester, PA 19380

**RE: Payment Application No. 1 Recommendation Letter  
Supplee Valley Sanitary Sewer Pipe Lining, Contract No. SSPL-2017**

Dear Mr. Smith:

The Contractor, SWERP Incorporated, has submitted a payment application for work completed on this project. This is the first payment for this project. Please note that the payment application submitted by the Contractor is titled payment application #2. This is because we did not recommend approval of the Contractor's first payment application because the CIPP lining work was not complete. However, we have observed the work-in-progress, and we confirm that the described work has been completed.

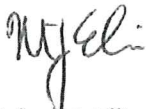
We have reviewed the attached Payment Application provided by the Contractor, and we recommend approval in the amount of \$159,652.80.

The remaining work is to perform manhole grouting and to install 3 saddle liners.

If you have any questions, please contact me at your convenience.

Sincerely,

**PENNONI ASSOCIATES INC.**

A handwritten signature in black ink, appearing to read "Michael J. Ellis".

Michael J. Ellis, PE  
Authority Engineer

/lef

Enclosures: Payment Application #2 (Pages 1-2)

cc: Mark Miller, Public Works Director (via email)

OWNER:

Township of East Goshen

## APPLICATION FOR PAYMENT

Date: 04/23/2018

Current Application No	TWO
Period Beginning:	03/01/2018
Period Ending:	04/12/2018

PROJECT:

Supplee Valley Sanitary Sewer Pipe Lining

ENGINEER:				CONTRACTOR:						
Pennoni Associates, Inc. 121 Continental Drive, Suite 207 Newark, DE 19713				SWERP Incorporated 1237 Hayes Blvd. Bristol, PA 19007						
ITEM NO.	Description	Original Quantity	Unit Cost	Unit	Quantity or Percentage Complete		Amount			
					Previous	This Month	To Date	Previous	This Month	To Date
1	CIPP Lining of 8" Pipe Within Township Roads	2220	\$31.00	LF	2,244.00	0.00	2,244.00	\$69,564.00	\$0.00	\$69,564.00
2	Cleaning & Lining of 8" Pipe Within Easements	1009	\$32.00	LF	1,021.00	0.00	1,021.00	\$32,672.00	\$0.00	\$32,672.00
3	Lateral Reinstatements	33	\$100.00	EA	30.00	0.00	30.00	\$3,000.00	\$0.00	\$3,000.00
4	Manhole Pressure Grouting	2	\$1,900.00	EA	0.00	0.00	0.00	\$0.00	\$0.00	\$0.00
5	Grout	50	\$50.00	GAL.	0.00	0.00	0.00	\$0.00	\$0.00	\$0.00
6	CIPP Lining of 8" Pipe between MH C384 - MH C040	305	\$42.00	LF	175.00	0.00	175.00	\$7,350.00	\$0.00	\$7,350.00
7	CIPP Lining of 8" Pipe between MH C411 - MH C410	145	\$40.00	LF	150.00	0.00	150.00	\$6,000.00	\$0.00	\$6,000.00
8	CIPP Lining of 8" Pipe between MH C417 - MH C416	262	\$34.00	LF	265.00	0.00	265.00	\$9,010.00	\$0.00	\$9,010.00
9	CIPP Lining of 8" Pipe between MH C407 - MH C406	159	\$34.00	LF	160.00	0.00	160.00	\$5,440.00	\$0.00	\$5,440.00
10	CIPP Lining of 8" Pipe between MH C394 - MH C385	318	\$32.00	LF	320.00	0.00	320.00	\$10,240.00	\$0.00	\$10,240.00
11	CIPP Lining of 8" Pipe between MH C0421 - MH C0421	278	\$34.00	LF	285.00	0.00	285.00	\$9,690.00	\$0.00	\$9,690.00
12	CIPP Lining of 8" Pipe between MH C042G - MH C042	305	\$32.00	LF	315.00	0.00	315.00	\$10,080.00	\$0.00	\$10,080.00
13	Lateral Reinstatements	25	\$100.00	EA	24.00	0.00	24.00	\$2,400.00	\$0.00	\$2,400.00
c/o 1	Two Point Repair Installations	1	\$5,427.00	LS	1.00	0.00	1.00	\$5,427.00	\$0.00	\$5,427.00
c/o 2	Installation of 6 Saddle Liners and One Point Repair	1	\$13,570.00	LS	0.00	0.48	0.48	\$0.00	\$6,519.00	\$6,519.00
ORIGINAL CONTRACT ESTIMATE					GROSS AMOUNT DUE					
+ -CHANGE ORDER VALUES					10% RETAINAGE					
CURRENT CONTRACT PLUS CHANGES					NET AMOUNT DUE TO DATE					
VALUE OF WORK IN PLACE					LESS PREVIOUS PAYMENTS/ESTIMATES					
ESTIMATED REMAINING WORK					AMOUNT PAYABLE THIS ESTIMATE					
							\$177,392.00			
							\$17,739.20			
							\$159,652.80			
							\$153,785.70			
							\$5,867.10			

Township of East Goshen  
Supplee Valley Sanitary Sewer Pipe Lining  
SWERP Inc.  
Pennonni Associates Inc.  
Application for Payment No. Two

### **Saddle Liner Installations**

	<b>Date</b>	<b>Location</b>
1	04/10/2018	212 Margaret Lane
2	04/11/2018	230 Baldwin Dr.
3	04/11/2018	232 Baldwin Dr.