

## EAST GOSHEN MUNICIPAL AUTHORITY

May 11, 2026

7:00

- 7:00pm CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE
  - Ask if anyone will be taping the meeting.
- CHAIRMAN'S REPORT/OTHER MEMBERS' REPORTS
- LIAISON REPORTS
- SEWER REPORTS
  - Director of Public Works' Report
  - West Goshen Report
  - Pennoni Engineer's Report
  - Big Fish Environmental Report
- APPROVAL OF MINUTES
  - April 13, 2026
- APPROVAL OF INVOICES

<u>Company</u>	<u>Invoice #</u>	<u>Amount</u>	<u>Paid?</u>
Pennoni	1323177	\$3,354.00	
Pennoni	1323178	\$1,064.00	
Pennoni	1323179	\$2,663.50	
Pennoni	1323180	\$3,973.25	
Pennoni	1323181	\$1,220.50	
Pennoni	1323182	\$1,662.50	
Gawthrop Greenwood			
Maillie	127792	\$4,500.00	
Xylem Water Solutions	3556E14139	\$8,284.70	yes

- **FINANCIAL REPORTS**

- April 2026

- **OLD BUSINESS**

- Morstein Rd Sewer Extension Progress Plans (Mike Ellis)

- **2026 Goals:**

Goal	Status
Ridley Creek Plant compliance	January through April 2026 were in compliance with PADEP permit requirements.
Continue to implement infiltration and inflow for the sewer system	Ongoing.
Municipal Authority representative to attend West Goshen MA meetings. West Goshen MA meets 1 <sup>st</sup> Wed of each month at 6pm at the West Goshen Township Building.	Attend meetings on an as-needed basis.
Long-term sustainability	Ongoing: (1) Sewer rate increase implemented July 2024. (2) Development of 20-year+ Capital Improvement Plan underway. (3) Continue to study sewer rates.

- **NEW BUSINESS**

- RCSTP MCC-1 Replacement Design Proposal (Mike Ellis)

- **CAPACITY REQUESTS**

- **ANY OTHER MATTER**

- **CORRESPONDENCE AND REPORTS OF INTEREST**

- **PUBLIC COMMENT**

- **ADJOURNMENT**

**EAST GOSHEN MUNICIPAL AUTHORITY**  
**EAST GOSHEN TOWNSHIP**  
1680 PAOLI PIKE, WEST CHESTER, PA 19380-6199  
610-692-7171

**Date:** May 11, 2026

**To:** Municipal Authority

**From:** Mark Miller

**Re:** Monthly Report

**Monthly Flows:** The average daily flow to West Goshen was 526,491 gallons per day.

**Monthly Rainfall:** 2.87

**Meters:**

- Read on a daily basis. No problems to report. Meter calibrations were done on 5/7/26 with minor adjustments.

**C.C. Collection:**

- The pumping stations were checked on a daily basis.
- As part of our preventive maintenance program, pumps were pulled and sent to the motor shop to be checked over.
- Wet wells were cleaned at all stations.
- Replaced half dozen manhole castings & lids that were damaged over the winter by the plows.
- We began cleaning and televising Mill Valley.

**Ridley Creek Collection:**

- Stations were visited daily.
- We've been having seal failure alarms at Hershey Mill Pump Station.
  - We pulled both pumps and sent them to be repaired.

**Ridley Creek Plant:**

- Matthew, the plant operator, along with his grandfather, tore down the centrifuge and rebuilt the unit. It was back in service on Sunday night, 5/3/26.
- Lenni rebuilt the motors that operate louvers.
- Replaced control switch for the a/c unit in the lab.
- All surge protectors are up to date.
- There was a terminal block in the Number 2 blower.

**Alarms:** 15

**PA One Calls:** 182

**Lateral Repairs/Caps:** 3 caps

## West Goshen April 2026 Sewer Report

### General Notes:

- For the month of March, the plant operated in compliance with its NPDES permit.
- WWTP monthly average daily flow – 3.47 mgd.
- WWPS monthly average daily flow – 1.112 mgd.
- Monthly estimated average total phosphorus discharge concentration was <0.02 mg/L.
- Sludge to landfill – 312 wet tons.

### Grant Projects:

- **2024 LSA-Statewide Grant: WWTP Pump Replacements.** The WGSA has been awarded a grant of \$250,000 for this project.

### Ongoing Projects:

- **WWTP Transformer Replacement - Transformer and Gear have been ordered. Submittals were received and have been approved. Anticipated equipment delivery – 4<sup>th</sup> qtr, 2026.**
- **Primary Clarifier No. 2 Rehab – The mechanism has been ordered and is under fabrication. 100% of order has been delivered. Installation expected during 2<sup>nd</sup> qtr, 2026.**
- **Return Activated Sludge (RAS) line project. The project involves installing an insertion valve on the force main and replacing several existing sludge valves – Anticipated completion, 2<sup>nd</sup> qtr, 2026.**

Michael Moffa  
Director of Wastewater  
West Goshen Township  
848 S. Concord Road  
West Chester, PA 19382  
610-696-0900





## EAST GOSHEN MUNICIPAL AUTHORITY ENGINEER'S REPORT

May 7, 2026

### Ridley Creek Sewage Treatment Plant (RCSTP)

- **Surge Suppression Inventory** – The surge suppression inventory report identifying the protected downstream equipment in the plant is being finalized.
- **SBR Tank Inspections** – No updates since our last report. Inspections of SBRs #1 and #2 were performed in 2025. Inspections of SBRs #3 and #4 are tentatively planned to occur in spring 2026. The rehabilitation contracting approach and schedule (one year vs. multiple years) will be determined after we inspect the remaining two tanks.
- **Motor Control Center (MCC) #1** – Replacement of the MCC is proposed for design in 2026 and construction in 2027. We submitted a proposal for engineering and design services for consideration at the May MA meeting.
- **RCSTP NPDES Permit Renewal** – We are compiling information for and preparing the NPDES permit renewal application package. Additional sampling is required for the application, and the sampling is underway. The application is due to PADEP by October 2, 2026.

### Sanitary Sewer Pipe Rehab

- **Supplee Valley Pipe Lining** – The contractor, Vortex Services, performed corrective action punchlist work on the one 370 LF pipe run that has blisters (small bubbles) throughout the installed liner on April 6. They lightly grinded out approximately 15 blisters that were projecting into the pipe approximately 1 inch and that appeared to be holding water. We observed the punchlist work on-site and are still awaiting their post-rehab video for review and confirmation of liner condition. We anticipate a final payment application will be submitted thereafter.
- **Waterview Pipe Lining** – The project was awarded to SWERP at the April MA meeting. We sent an award letter to the contractor. They provided bonds and insurance documents, which were found acceptable. We are coordinating with the Township to sign the agreement. A pre-construction meeting will be scheduled thereafter.

We also evaluated other asbestos cement pipes to line with the remaining ±\$80,000 of budget. It was determined that the Meadows neighborhood (Meadow Drive and Hollyberry Lane) should be able to be added within the budget. That is the next priority neighborhood on the pipe lining Capital Improvement Plan. A change order to add these pipe quantities will be pursued with SWERP.

### Pump Stations

- **Hunt Country Pump Station** – Pennoni previously conducted an existing conditions survey of the interior of the Hunt Country Pump Station building, including electrical components, and a topographic survey of the site. Blood Hound also previously performed utility locating of the existing force main, and our survey crew surveyed the force main mark outs. Existing conditions plans have been prepared, and we are continuing preparation of design and proposed conditions plans.
- **Barkway Pump Station** – We analyzed pump run times, cycling frequency, and flow rates from the recently installed SCADA system. This allows for live observation of instantaneous flow and other data, as well as all historical data since the system was installed. One of the pumps was identified to be pumping at a very low rate. We notified Mark Miller for the pump to be inspected.
- **Ashbridge Pump Station** – We also analyzed SCADA data for this pump station. Both pumps are operating as designed.

## Sewer Extensions

- **Morstein Road and Great Oak Circle** – We continued preparation of the concept design and plan for the sewer extensions. An approx 75% complete progress plan set was provided to the Township and MA. We are making some updates to the progress plan to propose a few sewer runs at shallower depths. The initially authorized effort for the plan preparation will then be complete. We will then provide a list of locations for Public Works to perform soft dig test pits for rock depths based upon the conceptually designed sewer depths. After we complete the concept design, we will develop an updated construction cost opinion.
- **Charter Chase and Goshen Downs** – No updates since our last report. The results of the sewer extension interest survey in 2025 were that 58 properties are definitely interested, 23 properties are interested depending on costs, 42 properties are not interested, and 31 properties did not respond.
- **1152 N. Chester Road** – No activity since our last report. We previously performed a cursory evaluation of possible sewer extension alternatives to service potential new residential development at the property. Depending upon the route of the selected alternative, this would potentially enable connections from other properties along a portion of N. Chester Road and also from Ivy Lane, Old Orchard Lane, and/or Raewyck Drive. It is our understanding that the potential applicant is still in the early stages of site planning and has not initiated the formal Land Development process yet.

## New Connections

- **1344 Morstein Road** – No activity since our last report. One new home is proposed with a grinder pump and low pressure sewer lateral through an easement across an existing residential property to the existing sewer main in Eastwick Circle. We previously coordinated with the Township and design consultant for submission of the Sewage Facilities Planning Mailer to PADEP. Sewer design is otherwise complete.
- **1354 Paoli Pike** – No activity since our last report. The property owner is proposing an easement through the abutting property at 642 Meadow Drive to connect to an existing sewer main along Meadow Drive via grinder pump.
- **1535 West Chester Pike (Westtown Triangle)** – The Westtown Township Sewer Engineer contacted East Goshen to confirm sewer system capacity for redevelopment of the Rite Aid site with a proposed car wash with an estimated sewer flow of 5,992 gpd, which is an increase over the existing use's flow. The property's wastewater already flows through East Goshen. We reviewed the capacity of the Ashbridge Pump Station as noted above and determined there is adequate capacity for the increased flows at both the pump station and in East Goshen's gravity conveyance system.

## Other

- **GIS Mapping** – We have updated the Township-wide sewer system mapping in GIS to begin to make it a functional asset management tool for the Public Works Department. We will present it to Public Works to discuss additional information (such as pipe materials, manhole elevations, repair history), features and enhancements that can be added, options for web hosting so that it can be available in the field for use by Public Works on repairs and PA One Call locating amongst other things, and the capability for Township staff to update manhole and pipe information themselves.

END OF REPORT



**Executive Summary**

The Ridley Creek sewage treatment plant outfall 001 met all effluent limitations regarding water quality for April 2026. All supplemental reports were submitted for March 2026. Caustic usage decreased to 58.48 gallons per day from 62.26 gallons per day last month. Aluminum sulfate solution volumes daily average decreased to 60.60 gallons per day from 63.34 gallons per day. No significant mechanical or operational issues were observed during the SBR treatment process. Sludge dewatering did not encounter any significant mechanical or operational issues. There were no odor complaints during the month.

**TABLES**

CERTIFIED LAB RESULTS- FINAL EFFLUENT April 2026						
Permit Limit (Weekly Average)	FLOW	Ammonia as N	CBOD	Total Phosphorus	Total Suspended Solids	Fecal Coliform
DATE	Gallons	7mg/L monthly	15mg/L	0.5mg/L	15mg/L	200 coliforms/100mL
	Final EFF/Applebrook					
4/7/26	348,000/0	<0.10	2.9	0.27	13.8	2
4/10/2026	271,000/0	N/A	N/A	N/A	4.6	N/A
4/14/2026	255,000/0	0.13	<2.0	0.21	8.2	1
4/24/2026	276,000/4,208	0.14	4.5	0.15	8.8	<1

CERTIFIED LAB RESULTS- FINAL EFFLUENT April 2026 Non-Report tests					
DATE	FLOW	NO2-NO3 (mg/L)	TKN (mg/L)	TN (mg/L)	
	Final EFF/Applebrook				
4/7/2026	348,000/0	3.4	1.56		4.96
4/10/2026	271,000/0	N/A	N/A	N/A	
4/14/26	255,000/0	6.67	1.57		8.22
4/24/26	276,000/4,208	4.06	1.09		5.15

CERTIFIED LAB RESULTS- INFLUENT April 2026							
DATE	FLOW	Ammonia as N	BOD	CBOD	TKN	Total Phosphorus	Total Suspended Solids
4/7/2026	350,190	35.5	257	234	49.7	5.14	200
4/14/2026	297,760	38.3	234	199	51.8	5.51	238
4/21/2026	285,540	56.3	202	212	78.9	8.12	222

\*Effluent was partially cloudy on 4/7, signifying higher TSS levels than normal. To ensure we remained below the weekly average limit I took an additional composite sample on 4/10 out of precaution. That is why 4/10 is only showing a result for TSS

TKN = Total Kleidahl Nitrogen

TN= Total Nitrogen

NO2-NO3= Nitrogen, Nitrate-Nitrite

The Tables above show the certified lab results from samples collected once a week by Suburban Testing Labs as required by our DEP permit. The influent samples are collected by a composite sampler located at the doghouse manhole where the influent enters the plant. The final effluent data is from a combination of a composite sampling and grab sampling, both performed at the end of the UV channel weirs. We remained below all of the weekly average discharge limits for the month of April.

**PA DEP**

Nothing to report

**Pennoni Associates**

Nothing to report

**Significant Rainfall**

During April, there were nine (9) days where precipitation occurred. There was 1 day where precipitation accumulation was greater than 0.50".

4/26: 0.79"

Total precipitation for the month was 2.14" rain

\*dates shown are the dates that the rain gauge was observed, not necessarily the day the rain occurred

**Chemical Data**

<b>April 2026</b>		
<u>Chemical</u>	Daily Average	Total Monthly
<u>Caustic Soda, gal</u>	58.48	1754.37
<u>Aluminum Sulfate solution, gal</u>	60.60	1818.00
<u>Sludge Dewatering, gal*</u>	15,114	332,518

\*22 days of sludge dewatering

There was a decrease of 36,775 gallons of sludge dewatering during the month of March compared to February.

**Minor Preventative Maintenance**

Flushed chemical feed lines to the SBRs.  
Cleaned final effluent weir trough daily.  
Skimmed surface of disc filters daily  
Drained and cleaned disc filters bi-weekly.  
Cleaned buildings and laboratory.

**Major Repairs or Upgrades**

Centrifuge major overhaul (pictures on pages 4,5, and 6)

The centrifuge did show some signs of wear which is expected for a machine of this age. It is suggested that the machine be sent out roughly this time next year to have the wear surfaces built back up with weld or replaced

**Upcoming Repairs or Upgrades**

Nothing to report

**Flow Data**

<b>April 2026</b>			
<b>Flow Meter Location</b>	<b>Total Volume for Month, MG</b>	<b>Average Daily Flow, gpd</b>	<b>Daily Maximum Flow, gpd</b>
Influent Wastewater to Screening Building	8.922	297,397	385,220
Influent Wastewater to SBRs	11.304	376,788	479,936
Internal Recycle	2.382	79,391	129,746
Treated Effluent to Disc Filters	10.669	355,634	444,384
Final Effluent Discharge	7.953	265,000	348,000
Applebrook Golf Course	335,158	30,469	39,058

The plant hydraulic design loading is 745,000 gpd.

\*Applebrook pump was turned on 4/20

There were no high flow events during the month of April 2026



The above photo shows the bowl and the conveyor still mated, while the gearbox (orange) is at the bottom of the frame. These are the three main components of the centrifuge rotating assembly.



This photo shows the wear tiles installed in the feed zone of the centrifuge conveyor. This spins inside of the bowl and is what moves the solids to the discharge side of the machine. In the front row you can see one tile appears to be chipped. There were a couple other tiles in similar shape. This is one of things that would require the rotating assembly to be sent out within the next year or so.



This photo shows the other end of the conveyor, where instead of replaceable wear tiles, you can see hardfacing weld on the conveyor flight. The picture shows one of the multiple spots that the hardfacing has chipped off. This is one of the other things that within a year or so will require the rotating assembly to be sent out. While the rotating assembly is in the shop they will inspect it, repair anything that is worn down, and then they will rebalance the assembly.

Draft  
EAST GOSHEN TOWNSHIP MUNICIPAL AUTHORITY  
MEETING MINUTES  
April 13, 2026

The East Goshen Township Municipal Authority held their regular meeting on Monday, April 13, 2026 at 7:00 pm. at the Township Building.

Members in attendance are indicated in **BOLD**:

- Kevin Cummings – Chairman**
- John Stipe – Vice Chairman**
- Sean Ellsworth**
- Dana Pizarro**
- Walter Wujcik**

Also in attendance were:

- Mark Miller (Director of Public Works),**
- Mike Ellis (Pennoni).**
- Peter Hicks (Supervisor**
- Kelly Brophy, Finance Director
- Patrick McKenna (Attorney)
- Theodore Speedy (Attorney)**
- Stacey Fuller (Attorney)

**COMMON ACRONYMS:**

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

**Call to Order & Pledge of Allegiance**

Kevin called the meeting to order at 7:00 pm and led those present in the Pledge of Allegiance. Kevin asked for a moment of silence for our First Responders and Military. Kevin asked if anyone would be recording the meeting. There was no response.

**New Business**

1152 N. Chester Rd. – Possible Low Pressure Pump Station – TR Moser explained that they may put about 12 carriage or townhouses on this 4.5 acre property. He wanted input from the Authority members about tying into Public Sewer. Mike Ellis provided maps of the area for everyone. Kevin pointed out that there are other homes in this area that may want to tie into public sewer. Dana spoke about where he lives in this area and how he has tried to get on public sewer. Discussion followed. The MA is interested in his plan.

1  
2 **Chairman's Report/Other Members Report**

3 Kevin spoke about the Biennial Meeting. The main question was the cost to go to West Goshen.  
4 There were no problems with the rate increase.  
5

6 **Liaison Reports**

7 **1. Conservancy Board -** Walter mentioned that Keep East Goshen Beautiful day is April 25.  
8 PECO Arbor Day will be Friday, April 24, 2026.

9 **2. Planning Commission –** John spoke about 3 lots on Manley Road. Mark is familiar with this.  
10

11 **SEWER REPORTS**

12 **1. Director of Public Works, Mark Miller's report for April 13, 2026.**

13  
14 **Monthly Flows –** The average daily flow to West Goshen was 586,452 gallons per day.  
15

16 **Monthly Rainfall -** 4.96".  
17

18 **Meters:** Read on a daily basis. No problems to report.  
19  
20

21 **C.C.Collection**

- 22 • Pumping stations were checked on a daily basis.  
23 • Gallagher Septic System Pumping was utilized to clean the grease at all pump stations.  
24     ◦ Wet Wells were pumped all the way down so grease could be removed.  
25     ◦ At that time, the floats were checked out to make sure they were operational.  
26     ◦ We utilized our confined space entry gear. Happy to report that all members participated in  
27 the operation.  
28     ◦ We saw cut and jackhammered out the large piece of concrete that supported the generator,  
29 which is now located outside of the control building.  
30

31 **Ridley Creek Collection:**

- 32 • The station wet well was pumped down so the grit could be removed. Floats were cleaned and  
33 pumps were checked for wear. We found no problems with the equipment.  
34

35 **Ridley Creek Plant:**

- 36 • On March 26<sup>th</sup>, we plugged the influent line to the plant. The guys went in and pulled the grit from  
37 the line, then vacuumed all the grit and other debris that had collected since the last cleaning.  
38 • Muffin monster was pulled and cleaned thoroughly; we also flushed and cleaned the Roto-Mat.  
39 • Lenni completed the electrical inspection at the plant.  
40

41 **Alarms:** 27 alarms. The new alarm system is working very well.  
42

43 **PA One Calls:** 166  
44

45 **Lateral Repairs/Caps:**

- 46 • Public Works was contacted to check a lateral blockage in Millcreek Development. The guys  
47 plunged the trap and were able to clear the line.

1  
2 • I stopped by a home in Clocktower Development when I saw a contractor working around a lateral.  
3 I introduced myself to the worker who said that the lateral cleanout had pulled out from the tee. They  
4 installed a new cleanout and all joints were glued. He said he had done a few in East Goshen so I  
5 gave him my card and asked that he contact me when working in the township.

6  
7 Note: Mark took Sean on a tour of the plant. Sean thanked Mark for the tour and was very  
8 impressed with it.  
9

## 10 11 **2. West Goshen Report**

12 The phosphorus number was discussed. Things look good. Kevin feels the new pumps are working  
13 well.  
14

## 15 16 17 **3. Pennoni Engineer's Report dated April 13, 2026** 18

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

- 20 • **Surge Suppression Inventory** – The surge suppression inventory report identifying the  
21 protected downstream equipment in the plant is being finalized.
- 22 • **SBR Tank Inspections** – No updates since our last report. Inspections of SBRs #1 and #2  
23 were performed in 2025. Inspections of SBRs #3 and #4 are tentatively planned to occur in  
24 spring 2026. The rehabilitation contracting approach and schedule (one year vs. multiple  
25 years) will be determined after we inspect the remaining two tanks.
- 26 • **Motor Control Center (MCC) #1** – Replacement of the MCC is proposed for design in 2026  
27 and construction in 2027. We are preparing a proposal for engineering and design services for  
28 consideration at the May MA meeting.
- 29 • **RCSTP NPDES Permit Renewal** – We have begun to compile information for and to  
30 prepare the NPDES permit renewal application package. After we compile available  
31 information, we will determine if additional sampling is required for the application. The  
32 application is due to PADEP by October 2, 2026.

### 33 ***Sanitary Sewer Pipe Rehab***

- 34 • **Supplee Valley Pipe Lining** – The contractor, Vortex Services, performed corrective action  
35 punchlist work on the one 370 LF pipe run that has blisters (small bubbles) throughout the  
36 installed liner on April 6. They lightly grinded out approximately 15 blisters that were  
37 projecting into the pipe approximately 1 inch and that appeared to be holding water. We  
38 observed the punchlist work on-site and are awaiting their post-rehab video for review and  
39 confirmation of liner condition. We anticipate a final payment application will be submitted  
40 thereafter.
- 41 • **Waterview Pipe Lining** – We finalized the bid document and administered the construction

1 solicitation. The project was advertised for bid on March 13 and 17, and bids were due on  
2 April 3. Six bids were received. We conducted the bid opening, reviewed bids, prepared a bid  
3 tabulation, and submitted an award recommendation letter.

#### 4 ***Pump Stations***

- 5 • **Hunt Country Pump Station** – Pennoni conducted an existing conditions survey of the  
6 interior of the Hunt Country Pump Station building, including electrical components, on  
7 February 18 and a topographic survey of the site on February 25. Blood Hound performed  
8 utility locating of the existing force main on March 4. Our survey crew surveyed the force  
9 main mark outs on March 5. Existing and proposed conditions design and plans are currently  
10 being prepared.

#### 11 ***Sewer Extensions***

- 12 • **Morstein Road and Great Oak Circle** – We continued preparation of the concept design  
13 and plan for the sewer extensions. We will provide a list of locations for Public Works to  
14 perform soft dig test pits for rock depths based upon the conceptually designed sewer depths.  
15 After we complete the concept design, we will develop an updated construction cost opinion.
- 16 • **Charter Chase and Goshen Downs** – No updates since our last report. The results of the  
17 sewer extension interest survey in 2025 were that 58 properties are definitely interested, 23  
18 properties are interested depending on costs, 42 properties are not interested, and 31  
19 properties did not respond.

1 **Chapter 94 Reports**

2 We completed the 2025 reports for the Ridley Creek STP (RCSTP), West Goshen (Chester Creek),  
3 and Westtown systems. We submitted the RCSTP report to PADEP on March 31. The West Goshen  
4 and Westtown Tributary reports were submitted to West Goshen Township and Westtown Township  
5 respectively on March 30.

6 East Goshen’s existing and projected treatment and conveyance needs for all three systems are all  
7 well within available and permitted capacities. A summary of the RCSTP and West Goshen reports  
8 follows:

9 ○ **RCSTP Service Area:**

- 10 ■ The RCSTP’s average influent flow was 381,000 gpd in 2025. For reference, the average  
11 influent flow was 418,000 gpd in 2024. Flows remain well within the 750,000 gpd  
12 permitted average capacity of the plant. The 2025 flows are equivalent to 189 gpd/EDU,  
13 which is less than the Township’s planning flow rate of 225 gpd/EDU. See Table 1 in the  
14 RCSTP Chapter 94 Report for a tabulation of 5-year flow history.
- 15 ■ The projected future 5-year average and maximum monthly flows to the RCSTP are  
16 424,000 gpd and 473,000 gpd, which is below the permitted capacity of the plant. Refer to  
17 the attached Chart 1 excerpt for a graph of the 5-year historical and 5-year projected  
18 flows.
- 19 ■ The RCSTP’s average organic loading was 922 lbs BOD<sub>5</sub>/day in 2025. For reference, the  
20 average organic loading was 1,342 lbs BOD<sub>5</sub>/day in 2024. Organic loadings remain well  
21 within the 2,098 lbs/day permitted capacity. See Table 3 in the RCSTP Chapter 94 Report  
22 for a tabulation of 5-year organic loading history.
- 23 ■ The 5-year projected average and maximum monthly organic loading to the plant is 932  
24 lbs BOD<sub>5</sub>/day and 1,341 lbs BOD<sub>5</sub>/day, which is within the permitted capacity. Refer to  
25 the attached Chart 2 excerpt for a graph of the 5-year historical and 5-year projected  
26 organic loadings.
- 27 ■ The Hershey’s Mill and Hunt Country Pump Stations operated within their permitted  
28 hydraulic capacities in 2025, and they are projected to continue to do so in the future due  
29 to little to no projected upstream connections in the next couple years. See Table 8 in the  
30 RCSTP Chapter 94 Report for a summary of 2025 pump station flows versus capacities.

31 ○ **West Goshen Service Area:**

- 32 ■ East Goshen’s average daily flow was 529,000 gpd in 2025. For reference, the average  
33 daily flow was 706,000 gpd in 2024. The actual flow rate in 2025 was 149 gpd/EDU,  
34 which is well under the planning flow rate of 225 gpd/EDU. See Table 1 in the West  
35 Goshen Chapter 94 Report for a tabulation of 5-year flow history.
- 36 ■ The projected future 5-year average and maximum monthly flows to West Goshen are  
37 650,000 gpd and 774,000 gpd, which is well within the intermunicipal capacity of 1  
38 MGD. Refer to the attached Chart 1 excerpt for a graph of the 5-year historical and 5-year  
39 projected flows.

- The Barkway and Ashbridge Pump Stations operated within their permitted hydraulic capacities in 2025 and are projected to continue to do so due to no projected upstream connections in the next couple years. See Table 8 in the West Goshen Chapter 94 Report for a summary of 2025 pump station flows versus capacities.

## ***New Connections***

- **1344 Morstein Road** – One new home is proposed with a grinder pump and low pressure sewer lateral through an easement across an existing residential property to the existing sewer main in Eastwick Circle. We coordinated with the Township and design consultant for submission of the Sewage Facilities Planning Mailer to PADEP. Sewer design is otherwise complete.
- **1354 Paoli Pike** – The property owner is proposing an easement through the abutting property at 642 Meadow Drive to connect to an existing sewer main along Meadow Drive via grinder pump. No activity since our last report.
- **1152 N. Chester Road** – We performed a cursory evaluation of a possible sewer extension to service potential new residential development at the property. The extension would run approximately 1,950 LF to an existing sanitary sewer manhole in Tanglewood Lane. It could be constructed entirely as a low pressure system with grinder pumps or as a combination of gravity and low pressure sewers. This would potentially enable connections from other properties along that stretch of N. Chester Road and also from Ivy Lane, Old Orchard Lane, and Raewyck Drive. Sewer from the manhole on Tanglewood Drive to Greenhill Road could be gravity sewer instead of low pressure, but all sewers to the east of Greenhill Road would need to be low pressure due to topography.

## ***Other***

- **GIS Mapping** – We are updating the Township-wide sewer system mapping in GIS to begin to make it a functional asset management tool for the Public Works Department. We intend to present it to Public Works in April and to discuss additional information (such as pipe materials, manhole elevations, repair history), features and enhancements that can be added, options for web hosting so that it can be available in the field for use by Public Works on repairs and PA One Call locating amongst other things, and the capability for Township staff to update manhole and pipe information themselves.

## **3. Big Fish Environmental Services –**

The Ridley Creek sewage treatment plant outfall 001 met all effluent limitations regarding water quality for March 2026. All supplemental reports were submitted for February 2026. Caustic usage increased to 62.26 gallons per day from 51.85 gallons per day last month. Aluminum sulfate solution volumes daily average decreased slightly to 63.34 gallons per day from 68.90 gallons per day. No significant mechanical or operational issues were observed during the SBR treatment process. Sludge dewatering did not encounter any significant mechanical or operational issues. There were no odor complaints during the month.

1 **Approval of Minutes**

2 The minutes of the March 9, 2026 meeting were approved as amended by Sean and John.

3  
4 **Approval of Invoices**

- 5 1. Sean moved to approve payment of Pennoni Invoices:
- 6 #1319278 in the amount of \$15,658.75
- 7 #1319279 in the amount of \$ 7,608.50

8 Dana seconded the motion. The motion passed unanimously.

- 9
- 10 2. Walter moved to approve payment of Pennoni invoice #1319280 in the amount of \$9,700.25.
- 11 John seconded the motion. The motion passed unanimously.

- 12
- 13 3. John moved to approve payment of the Gawthrop Greenwood invoice #222091490 in the amount
- 14 of \$338.10. Dana seconded the motion. The motion passed unanimously.

- 15
- 16 4. John moved to approve payment of the Maillie invoice #126946 in the amount of \$7,500.00. Sean
- 17 seconded the motion. The motion passed unanimously.

- 18
- 19 5. Dana moved to approve payment of Xylem Water Solutions invoice #3556E12877 in the amount
- 20 of \$15,524.69. Walter seconded the motion. The motion passed unanimously.

21  
22 **Waterview Sanitary Sewer Pipe Lining** - Mike spoke about the proposal for this project. Walter  
23 moved to accept Pennoni’s proposal for engineering costs of \$30,000.00. Sean seconded the motion.  
24 The motion passed unanimously.

25  
26 **Financial Reports**

27 Dana Gieder provided the following report: YTD March 2026, the Municipal Authority recorded  
28 \$81,445.19 in revenues (primarily from Sewer Capital Reserve, Sewer Operating transfers and  
29 collecting tapping fees) and \$67,656.81 in expenses (Hershey Mill pump station mission alarm panel  
30 installation, Aeration pump repair, MA Quarterly recharges, audit expenses, and legal and  
31 engineering expenses). The net result of operations is \$13,788.38. As of March 31, 2026, the fund  
32 balance was \$42,155.60.

33  
34 **Old Business** -  
35 **None**

36  
37 **Goals**

38 In the second goal insert - Continue to implement “reduction of” infiltration.....

39  
40 **New Business** –

- 41 1. Waterview Pipe Lining Bid Award Recommendation – Mike mentioned that the reason for the
- 42 reduction compared to last year’s project is that there is no easement involved. Bids were reviewed.
- 43 Walter moved to award the bid for Waterview Sanitary Sewer Pipe Lining Contract No. WVPL-2026
- 44 to SWERP Incorporated in the amount of \$187,781. Dana seconded the motion. The motion passed
- 45 unanimously.

1 **Any Other Matter -**

- 2 1. Dana mentioned that he received information about litigation by the PUC. The PUC reported that a  
3 municipal authority gave service outside of their service area and need to make retroactive payments.  
4 2. Walter and Kevin will not be at the June meeting.

5  
6 **Correspondence-** None

7  
8 **Public Comment -** None

9  
10 **Adjournment**

11 There being no further business Sean moved to adjourn the meeting. Dana seconded the motion. The  
12 motion passed unanimously. The meeting was adjourned at 8:00 pm.  
13 The next regular meeting will be held on Monday, May 11, 2026 at 7:00 p.m.

14  
15 Respectfully submitted,

16  
17  
18 Ruth Kiefer, Recording Secretary



# INVOICE

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

Mark Miller  
 East Goshen Municipal Authority  
 1580 Paoli Pike  
 West Chester, PA 19380-6199

Invoice No : 1323177  
 Invoice Date : 05/01/2026  
 Project : EGMAU25004  
 Project Name : Hunt Country Pump  
 Station Upgrade

For Services Rendered Through 04/19/2026

Subcontractor, Blood Hound LLC, fee for subsurface utility locating and stakeout. Pennoni continued preparation of design and plans.

Phase Code / Name		Contract Amount	Previously Billed	% Complete	Complete To Date	Amount This Invoice
01 -- Survey	NTE	\$11,400.00	\$9,966.25	99.78%	\$11,375.25	\$1,409.00
02 -- Design	NTE	\$50,100.00	\$6,170.50	16.20%	\$8,115.50	\$1,945.00
03 -- Permitting	NTE	\$12,800.00	\$0.00	0.00%	\$0.00	\$0.00
04 -- Bid Services	NTE	\$6,300.00	\$0.00	0.00%	\$0.00	\$0.00
<b>Total :</b>		<b>\$80,600.00</b>	<b>\$16,136.75</b>		<b>\$19,490.75</b>	<b>\$3,354.00</b>

### Phase: 01 -- Survey

#### Consultants

Engineering Servs-direct

3/4/2026	Blood Hound LLC/PULS, Inc.	Engineering Services	1,409.00	
<b>Total Consultants</b>			<b>1,409.00</b>	<b>1,409.00</b>

#### Billing Limits

	Current	Prior	To-Date
Total Billings	1,409.00	9,966.25	11,375.25
Limit			11,400.00
Remainig			24.75

#### Phase Subtotal

**\$1,409.00**

### Phase: 02 -- Design

#### Labor

Class	Hours	Rate	Amount
Authority Engineer	0.50	166.00	83.00
Staff Professional	14.00	133.00	1,862.00

#### Labor

**1,945.00**

#### Billing Limits

	Current	Prior	To-Date
Total Billings	1,945.00	6,170.50	8,115.50
Limit			50,100.00
Remainig			41,984.50

APPROVED BY: Lucas

DATE PAID: \_\_\_\_\_

#### Phase Subtotal

CHECK #: \_\_\_\_\_  
 CHARGED TO: 07-424-370P

**\$1,945.00**

Continued on next page...

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

---

Project	EGMAU25004	Hunt Country Pump Station Upgrade	Invoice	1323177
<b>Amount Due This Invoice</b>				<b>\$3,354.00</b>

---

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

<b>Project:</b>	EGMAU25004		
<b>Pennoni Job No.:</b>	Hunt Country Pump Station Upgrade		
<b>Invoice No:</b>	1323177		
<b>Invoice Period:</b>	3/23/2026	to	4/19/2026
<b>Initial Authorization:</b>	\$ 80,600.00	<b>Date:</b>	5/1/2026
<b>Contract Amount:</b>	\$ 80,600.00		
<b>Previously Invoiced:</b>	\$ 16,136.75		
<b>Current Invoice:</b>	\$ 3,354.00		
<b>Invoiced to Date (\$):</b>	\$ 19,490.75		
<b>Invoiced to Date (%):</b>	24%		
<b>Remaining Budget (\$):</b>	\$ 61,109.25		
<b>Remaining Budget (%):</b>	76%		

**Budget by Phase:**

<b>Phase Name:</b>	Hunt Country Pump Station Upgrade		
<b>Phase Budget:</b>	\$ 80,600.00		
<b>Previously Invoiced:</b>	\$ 16,136.75		
<b>Current Invoice:</b>	\$ 3,354.00		
<b>Invoiced to Date (\$):</b>	\$ 19,490.75		
<b>Invoiced to Date (%):</b>	24%		
<b>Remaining Budget (\$):</b>	\$ 61,109.25		
<b>Remaining Budget (%):</b>	76%		

**Comments:** Subcontractor, Blood Hound LLC, fee for subsurface utility locating and stakeout. Pennoni continued preparation of design and plans.



# INVOICE

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

Mark Miller  
East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199

Invoice No : 1323178  
Invoice Date : 05/01/2026  
Project : EGMAU25006  
Project Name : Morstein Rd Sewer  
Design and  
Permitting

For Services Rendered Through 04/19/2026

Continued concept design and preparation of plans including site plans, sewer main profiles, and construction details.

Billing Limits	Current	Prior	To-Date
Total Billings	1,064.00	20,883.00	21,947.00
Limit			25,000.00
Remaining			3,053.00

### Labor

	Hours	Rate	Amount
Staff Professional	8.00	133.00	1,064.00
Totals	8.00		1,064.00
Total Labor			1,064.00
Total this Invoice			<u>\$1,064.00</u>

APPROVED BY: klc  
DATE PAID: \_\_\_\_\_  
CHECK #: \_\_\_\_\_  
CHARGED TO: 07-924-3130

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

<b>Project:</b>	EGMAU25006		
<b>Pennoni Job No.:</b>	Morstein Rd Sewer Design and Permitting		
<b>Invoice No:</b>	1323178		
<b>Invoice Period:</b>	2/16/2026	to	4/19/2026
<b>Initial Authorization:</b>	\$ 25,000.00	<b>Date:</b>	5/1/2026
<b>Contract Amount:</b>	\$ 25,000.00		
<b>Previously Invoiced:</b>	\$ 20,883.00		
<b>Current Invoice:</b>	\$ 1,064.00		
<b>Invoiced to Date (\$):</b>	\$ 21,947.00		
<b>Invoiced to Date (%):</b>	88%		
<b>Remaining Budget (\$):</b>	\$ 3,053.00		
<b>Remaining Budget (%):</b>	12%		

**Budget by Phase:**

<b>Phase Name:</b>	Morstein Rd Sewer Design and Permitting		
<b>Phase Budget:</b>	\$ 25,000.00		
<b>Previously Invoiced:</b>	\$ 20,883.00		
<b>Current Invoice:</b>	\$ 1,064.00		
<b>Invoiced to Date (\$):</b>	\$ 21,947.00		
<b>Invoiced to Date (%):</b>	88%		
<b>Remaining Budget (\$):</b>	\$ 3,053.00		
<b>Remaining Budget (%):</b>	12%		

**Comments:** Continued concept design and preparation of plans including site plans, sewer main profiles, and construction details.



# INVOICE

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

Mark Miller  
East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199

Invoice No : 1323179  
Invoice Date : 05/01/2026  
Project : EGMAU25007  
Project Name : Waterview Pipe Lining

For Services Rendered Through 04/19/2026

Provided bid assistance including responding to prospective bidders' questions, preparation of Addendum #1, conducting bid opening, review of bids, low bidder reference checks, and preparing bid tabulation and award recommendation letter. Issued award letter to contractor following MA award. Evaluated potential additional sewers for pipe lining with remaining budget.

Phase Code / Name		Contract Amount	Previously Billed	% Complete	Complete To Date	Amount This Invoice
-- Waterview Pipe Lining	est.	\$30,000.00	\$7,608.50		\$10,272.00	\$2,663.50
	Total :	\$30,000.00	\$7,608.50		\$10,272.00	\$2,663.50

### Labor

Class	Hours	Rate	Amount
Authority Engineer	5.50	166.00	913.00
Staff Professional	10.50	133.00	1,396.50
Senior Engineering Tech	3.00	118.00	354.00
	<b>Labor</b>		<b>2,663.50</b>

Amount Due This Invoice \$2,663.50

APPROVED BY: KLW  
DATE PAID: \_\_\_\_\_  
CHECK #: \_\_\_\_\_  
CHARGED TO: 07-429-3780

<b>Project:</b>	EGMAU25007		
<b>Pennoni Job No.:</b>	Waterview Pipe Lining		
<b>Invoice No:</b>	1323179		
<b>Invoice Period:</b>	3/23/2026	to	4/19/2026
<b>Initial Authorization:</b>	\$ 30,000.00	<b>Date:</b>	5/1/2026
<b>Contract Amount:</b>	\$ 30,000.00		
<b>Previously Invoiced:</b>	\$ 7,608.50		
<b>Current Invoice:</b>	\$ 2,663.50		
<b>Invoiced to Date (\$):</b>	\$ 10,272.00		
<b>Invoiced to Date (%):</b>	34%		
<b>Remaining Budget (\$):</b>	\$ 19,728.00		
<b>Remaining Budget (%):</b>	66%		

**Budget by Phase:**

<b>Phase Name:</b>	Waterview Pipe Lining		
<b>Phase Budget:</b>	\$ 30,000.00		
<b>Previously Invoiced:</b>	\$ 7,608.50		
<b>Current Invoice:</b>	\$ 2,663.50		
<b>Invoiced to Date (\$):</b>	\$ 10,272.00		
<b>Invoiced to Date (%):</b>	34%		
<b>Remaining Budget (\$):</b>	\$ 19,728.00		
<b>Remaining Budget (%):</b>	66%		

**Comments:** Provided bid assistance including responding to prospective bidders' questions, preparation of Addendum #1, conducting bid opening, review of bids, low bidder reference checks, and preparing bid tabulation and award recommendation letter. Issued award letter to contractor following MA award. Evaluated potential additional sewers for pipe lining with remaining budget.



# INVOICE

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

Mark Miller  
East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199

Invoice No : 1323180  
Invoice Date : 05/01/2026  
Project : EGMAU26001  
Project Name : 2026 General Services

For Services Rendered Through 04/19/2026

Prepared April Engineer's Report. Reviewed April RCSTP Operator's Report. Attended April MA meeting.

2025 Supplee Valley Pipe Lining: Coordinated with contractor, Vortex, for repair of dimpled pipe liner. On-site observation of repairs.

Gravity flow meter near Blacksmith Shop: obtained and reviewed vendor quotes for metering manhole and meter.

Discussion with Goshen Downs resident regarding their questions on potential sanitary sewer extensions.

Phase Code / Name		Contract Amount	Previously Billed	% Complete	Complete To Date	Amount This Invoice
01 -- General Engineering Services	NTE	\$45,925.25	\$9,625.50	29.61%	\$13,598.75	\$3,973.25
02 -- Grants	NTE	\$74.75	\$74.75	100.00%	\$74.75	\$0.00
Total :		\$46,000.00	\$9,700.25		\$13,673.50	\$3,973.25

## Phase: 01 -- General Engineering Services

### Labor

Class	Hours	Rate	Amount
Authority Engineer	9.50	166.00	1,577.00
Staff Professional	12.25	133.00	1,629.25
Senior Engineering Tech	6.50	118.00	767.00

Labor 3,973.25

Phase Subtotal

\$3,973.25

Amount Due This Invoice

\$3,973.25

APPROVED BY: KMS

DATE PAID: \_\_\_\_\_

CHECK #: \_\_\_\_\_

CHARGED TO: 07-424-3130

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

<b>Project:</b>	EGMAU26001		
<b>Pennoni Job No.:</b>	2026 General Services		
<b>Invoice No:</b>	1323180		
<b>Invoice Period:</b>	3/23/2026	to	4/19/2026
<b>Initial Authorization:</b>	\$ 46,000.00	<b>Date:</b>	5/1/2026
<b>Contract Amount:</b>	\$ 46,000.00		
<b>Previously Invoiced:</b>	\$ 9,700.25		
<b>Current Invoice:</b>	\$ 3,973.25		
<b>Invoiced to Date (\$):</b>	\$ 13,673.50		
<b>Invoiced to Date (%):</b>	30%		
<b>Remaining Budget (\$):</b>	\$ 32,326.50		
<b>Remaining Budget (%):</b>	70%		

**Budget by Phase:**

<b>Phase Name:</b>	2026 General Services		
<b>Phase Budget:</b>	\$ 46,000.00		
<b>Previously Invoiced:</b>	\$ 9,700.25		
<b>Current Invoice:</b>	\$ 3,973.25		
<b>Invoiced to Date (\$):</b>	\$ 13,673.50		
<b>Invoiced to Date (%):</b>	30%		
<b>Remaining Budget (\$):</b>	\$ 32,326.50		
<b>Remaining Budget (%):</b>	70%		

**Comments:** Prepared April Engineer's Report. Reviewed April RCSTP Operator's Report. Attended April MA meeting.

2025 Supplee Valley Pipe Lining: Coordinated with contractor, Vortex, for repair of dimpled pipe liner. On-site observation of repairs.

Gravity flow meter near Blacksmith Shop: obtained and reviewed vendor quotes for metering manhole and meter.

Discussion with Goshen Downs resident regarding their questions on potential sanitary sewer extensions.



# INVOICE

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

Mark Miller  
East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199

Invoice No : 1323181  
Invoice Date : 05/01/2026  
Project : EGMAU26002  
Project Name : 2025 Chapter 94  
Reports

---

**For Services Rendered Through 04/19/2026**

Finalized and submitted West Goshen (Chester Creek) and Westtown Chapter 94 Reports to the respective townships. Finalized and submitted RCSTP Chapter 94 Report to PADEP.

Billing Limits	Current	Prior	To-Date
Total Billings	1,220.50	2,635.00	3,855.50
Limit			7,500.00
Remaining			3,644.50

**Labor**

	Hours	Rate	Amount
Authority Engineer	5.75	166.00	954.50
Staff Professional	2.00	133.00	266.00
Totals	7.75		1,220.50
<b>Total Labor</b>			<b>1,220.50</b>

**Total this Invoice** \$1,220.50

APPROVED BY: Kers  
DATE PAID: \_\_\_\_\_  
CHECK #: \_\_\_\_\_  
CHARGED TO: 09-424-3130

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

---

<b>Project:</b>	EGMAU26002		
<b>Pennoni Job No.:</b>	2025 Chapter 94 Reports		
<b>Invoice No:</b>	1323181		
<b>Invoice Period:</b>	2/16/2026	to	4/19/2026
<b>Initial Authorization:</b>	\$ 7,500.00	<b>Date:</b>	5/1/2026
<b>Contract Amount:</b>	\$ 7,500.00		
<b>Previously Invoiced:</b>	\$ 2,635.00		
<b>Current Invoice:</b>	\$ 1,220.50		
<b>Invoiced to Date (\$):</b>	\$ 3,855.50		
<b>Invoiced to Date (%):</b>	51%		
<b>Remaining Budget (\$):</b>	\$ 3,644.50		
<b>Remaining Budget (%):</b>	49%		

**Budget by Phase:**

<b>Phase Name:</b>	2025 Chapter 94 Reports		
<b>Phase Budget:</b>	\$ 7,500.00		
<b>Previously Invoiced:</b>	\$ 2,635.00		
<b>Current Invoice:</b>	\$ 1,220.50		
<b>Invoiced to Date (\$):</b>	\$ 3,855.50		
<b>Invoiced to Date (%):</b>	51%		
<b>Remaining Budget (\$):</b>	\$ 3,644.50		
<b>Remaining Budget (%):</b>	49%		

**Comments:** Finalized and submitted West Goshen (Chester Creek) and Westtown Chapter 94 Reports to the respective townships. Finalized and submitted RCSTP Chapter 94 Report to PADEP.



# INVOICE

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

Mark Miller  
East Goshen Municipal Authority  
1580 Paoli Pike  
West Chester, PA 19380-6199

Invoice No : 1323182  
Invoice Date : 05/01/2026  
Project : EGMAU26003  
Project Name : RCSTP NPDES  
Permit Renewal

### For Services Rendered Through 04/19/2026

Began compiling data and information and preparing renewal application documents.

Billing Limits	Current	Prior	To-Date
Total Billings	1,662.50	0.00	1,662.50
Limit			7,500.00
Remaining			5,837.50

### Labor

	Hours	Rate	Amount
Staff Professional	12.50	133.00	1,662.50
Totals	12.50		1,662.50
Total Labor			1,662.50
Total this Invoice			<u>\$1,662.50</u>

APPROVED BY: KLIS  
DATE PAID: \_\_\_\_\_  
CHECK #: \_\_\_\_\_  
CHARGED TO: 07-424-3100

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

<b>Project:</b>	EGMAU26003		
<b>Pennoni Job No.:</b>	RCSTP NPDES Permit Renewal		
<b>Invoice No:</b>	1323182		
<b>Invoice Period:</b>	3/23/2026	to	4/19/2026
<b>Initial Authorization:</b>	\$ 7,500.00	<b>Date:</b>	5/1/2026
<b>Contract Amount:</b>	\$ 7,500.00		
<b>Previously Invoiced:</b>	\$ -		
<b>Current Invoice:</b>	\$ 1,662.50		
<b>Invoiced to Date (\$):</b>	\$ 1,662.50		
<b>Invoiced to Date (%):</b>	22%		
<b>Remaining Budget (\$):</b>	\$ 5,837.50		
<b>Remaining Budget (%):</b>	78%		

**Budget by Phase:**

<b>Phase Name:</b>	RCSTP NPDES Permit Renewal		
<b>Phase Budget:</b>	\$ 7,500.00		
<b>Previously Invoiced:</b>	\$ -		
<b>Current Invoice:</b>	\$ 1,662.50		
<b>Invoiced to Date (\$):</b>	\$ 1,662.50		
<b>Invoiced to Date (%):</b>	22%		
<b>Remaining Budget (\$):</b>	\$ 5,837.50		
<b>Remaining Budget (%):</b>	78%		

**Comments:** Began compiling data and information and preparing renewal application documents.



500 N Lewis Rd  
Limerick, PA 19468  
(610) 935-1420  
EIN: 23-1518888

Web: [www.maillie.com](http://www.maillie.com)  
Email: [firm@maillie.com](mailto:firm@maillie.com)

Kelly Brophy  
East Goshen Municipal Authority  
1580 PAOLI PIKE  
WEST CHESTER, PA 19380-6107

Date: 3/31/2026  
Invoice Number: 127792  
Client: 2500.000  
Due Date: Upon Receipt

Billing for time incurred from March 1, 2026 to March 31, 2026 for the following services:

Final billing on December 31, 2025 audit

Invoice Total: \$4,500.00

APPROVED BY: KLB

DATE PAID: \_\_\_\_\_

CHECK #: \_\_\_\_\_

CHARGED TO: 07-424-3110

Please return this portion with payment.

ID: 2500  
East Goshen Municipal Authority

Date: 3/31/2026  
Due Date: Upon Receipt

Invoice: 127792  
Amount Due: \$4,500.00

Amount Enclosed: \$ \_\_\_\_\_

Please make checks payable to Maillie LLP.

# Xylem Water Solutions U.S.A., Inc.

2330 YELLOW SPRINGS RD.  
MALVERN, PA 19355  
Tel. (610)647-6620 Fax: (610)647-5563



26717 Network Place  
Chicago, IL 60673-1267

INVOICE			YOUR PURCHASE ORDER 26-00104	
INVOICE NO. 3556E14139	FUS NO. F50733	DATE SHIPPED 3/17/26	DELIVERY NOTE K51740	
INVOICE DATE 3/17/26	TRN C1	WHS 130	PAYMENT TERMS 100% N30 FROM INVOICE	

Sold To:

Customer No. 213828

Ship To:

Global No. 5230853

East Goshen TWP

East Goshen TWP

1580 PAOLI PIKE

1580 PAOLI PIKE

WEST CHESTER

PA 19380-6107

WEST CHESTER

PA 19380-6107

FREIGHT TERMS Jobsite		DELIVERY TERMS No S & H Charge		ORDER PROCESSED BY FLYGT-PHILADELPHIA, PA BRA	
SHIP VIA Customer Pick Up		ORDER TEXT East Goshen T#4532		CUSTOMER TEXT Jennifer LaPorte	
LINE	ITEM/DESCRIPTION	QUANTITY SHIPPED UM	UNIT PRICE DISCOUNT/CHARGE	NET PRICE	EXTENDED AMOUNT
	Quote# R2026-MAL-0015				
001	0000000824061 WASHER, SS 24.5MM ID 35MM OD Reduction by Set \$ Value	1 EA	7.40 1.33	6.069	6.07
002	0000000830201 SCREW, ALLEN M8 X 25 SS Reduction by Set \$ Value	1 EA	4.70 .85	3.854	3.85
003	0000000942102 CABLE, SUBCAB AWG 14/7 19MM Reduction by Set \$ Value	50 FT	18.00 3.24	14.760	738.00
004	0000003978800 SLEEVE, SS Reduction by Set \$ Value	1 EA	142.00 25.56	116.440	116.44
005	0000005950101 HOUSING, OIL BOTTOM CI	1 EA	937.00	768.341	768.34

**PAID**

APPROVED BY: \_\_\_\_\_  
DATE PAID: \_\_\_\_\_  
CHECK # TO: \_\_\_\_\_  
CHARGED TO: \_\_\_\_\_

Cont on 2

APPROVED BY: MR KCS  
DATE PAID: \_\_\_\_\_  
CHECK #: \_\_\_\_\_  
CHARGED TO: 07-429-100  
Sludge Pump  
Aeration Pump

# Xylem Water Solutions U.S.A., Inc.

2330 YELLOW SPRINGS RD.  
MALVERN, PA 19355  
Tel.(610)647-6620 Fax:(610)647-5563



**26717 Network Place  
Chicago, IL 60673-1267**

INVOICE			YOUR PURCHASE ORDER 26-00104	
INVOICE NO. 3556E14139	FUS NO. F50733	DATE SHIPPED 3/17/26	DELIVERY NOTE K51740	
INVOICE DATE 3/17/26	TRN C1	WHS 130	PAYMENT TERMS 100% N30 FROM INVOICE	

Sold To:

Customer No. 213828
Global No. 5230853

Ship To:

Page 2

East Goshen TWP  
1580 PAOLI PIKE  
WEST CHESTER PA 19380-6107

East Goshen TWP  
1580 PAOLI PIKE  
WEST CHESTER PA 19380-6107

FREIGHT TERMS Jobsite		DELIVERY TERMS No S & H Charge		ORDER PROCESSED BY FLYGT-PHILADELPHIA, PA BRA	
SHIP VIA Customer Pick Up		ORDER TEXT East Goshen T#4532		CUSTOMER TEXT Jennifer LaPorte	
LINE	ITEM/DESCRIPTION	QUANTITY SHIPPED UM	UNIT PRICE DISCOUNT/CHARGE	NET PRICE	EXTENDED AMOUNT
005	0000005950101 Reduction by Set \$ Value		168.66		
006	0000006525300 WASHER,SUPPORTING SS Reduction by Set \$ Value	1 EA	19.00 3.42	15.581	15.58
007	0000007779400 KIT,ROTOR UNIT Reduction by Set \$ Value	1 EA	1,150.00 207.00	943.000	943.00
008	0000007359002 KIT,RETROFIT N462 3085 P/S/F Reduction by Set \$ Value	1 EA	4,681.00 842.58	3,838.421	3,838.42
009	0000006018927 KIT,REPAIR BASIC 3085.092/.182 Reduction by Set \$ Value	1 EA	1,313.00 1,313.00		
010	0000000841794 GROMMET,NBR 21ID 35OD 26L	1 EA	36.00		

Cont on 3

# Xylem Water Solutions U.S.A., Inc.

2330 YELLOW SPRINGS RD.  
MALVERN, PA 19355  
Tel.(610)647-6620 Fax:(610)647-5563



26717 Network Place  
Chicago, IL 60673-1267

INVOICE			YOUR PURCHASE ORDER 26-00104	
INVOICE NO. 3556E14139	FUS NO. F50733	DATE SHIPPED 3/17/26	DELIVERY NOTE K51740	
INVOICE DATE 3/17/26	TRN C1	WHS 130	PAYMENT TERMS 100% N30 FROM INVOICE	

Sold To:

Customer No. 213828
Global No. 5230853

Ship To:

Page 3

East Goshen TWP

East Goshen TWP

1580 PAOLI PIKE

1580 PAOLI PIKE

WEST CHESTER

PA 19380-6107

WEST CHESTER

PA 19380-6107

FREIGHT TERMS Jobsite		DELIVERY TERMS No S & H Charge		ORDER PROCESSED BY FLYGT-PHILADELPHIA, PA BRA	
SHIP VIA Customer Pick Up		ORDER TEXT East Goshen T#4532		CUSTOMER TEXT Jennifer LaPorte	
LINE	ITEM/DESCRIPTION	QUANTITY SHIPPED UM	UNIT PRICE DISCOUNT/CHARGE	NET PRICE	EXTENDED AMOUNT
010	0000000841794 Reduction by Set \$ Value		36.00		
011	0000006785820 CLIP,CABLE PLASTIC Reduction by Set \$ Value	1 EA	24.00 24.00		
012	1400000690002A LABOR,SVC FLYGT,NO TAX MODELS: 3000,6000,7000,8000	12 EA	145.00	145.000	1,740.00
013	1400000690021A ENV FEE 0-10HP NO TAX ENVIRONMENTAL FEE	1 TP EA	60.00	60.000	60.00
014	1400000690024 SHOP SUPPLIES-SMALL PUMPS MISC SHOP SUPPLIES FOR REPAIR	1 TP EA	55.00	55.000	55.00
SUB-TOTAL OF POSITIONS					8,284.70
** ADD NO S & H CHARGES **					

Cont on 4

# Xylem Water Solutions U.S.A., Inc.

2330 YELLOW SPRINGS RD.  
MALVERN, PA 19355  
Tel.(610)647-6620 Fax:(610)647-5563



26717 Network Place  
Chicago, IL 60673-1267

INVOICE			YOUR PURCHASE ORDER 26-00104	
INVOICE NO. 3556E14139	FUS NO. F50733	DATE SHIPPED 3/17/26	DELIVERY NOTE K51740	
INVOICE DATE 3/17/26	TRN C1	WHS 130	PAYMENT TERMS 100% N30 FROM INVOICE	

Sold To:

Customer No.	213828
Global No.	5230853

Ship To:

Page 4

East Goshen TWP  
1580 PAOLI PIKE  
WEST CHESTER PA 19380-6107

East Goshen TWP  
1580 PAOLI PIKE  
WEST CHESTER PA 19380-6107

FREIGHT TERMS Jobsite		DELIVERY TERMS No S & H Charge		ORDER PROCESSED BY FLYGT-PHILADELPHIA, PA BRA	
SHIP VIA Customer Pick Up		ORDER TEXT East Goshen T#4532		CUSTOMER TEXT Jennifer LaPorte	
LINE	ITEM/DESCRIPTION	QUANTITY SHIPPED UM	UNIT PRICE DISCOUNT/CHARGE	NET PRICE	EXTENDED AMOUNT
	NET AMOUNT BEFORE TAXES USD				8,284.70
				ORDER TOTAL USD	8,284.70

# Memo

---

To: Municipal Authority  
From: Dana Gieder  
Re: MA April 2026 YTD Financial Report  
Date: May 6, 2026

---

YTD April 2026, the Municipal Authority recorded \$125,808.47 in revenues (primarily from Sewer Capital Reserve and Sewer Operating transfers, collecting inspection and tapping fees) and \$109,247.11 in expenses (Hershey Mill pump station mission alarm panel installation, Aeration pump repair, MA Quarterly recharges, audit expenses, Flygt sludge pump repair, legal and engineering expenses). The net result of operations is \$16,561.36. As of April 30, 2026, the fund balance was \$44,928.58.

Attached is a complete list of 2026 YTD detailed MA revenues and expenses.

**EAST GOSHEN TOWNSHIP**  
**Municipal Authority Fund**  
**YTD APRIL 2026**

Account Id	Account Description	Annual Budget	Current YTD	Prior YTD
<b>REVENUE</b>				
07-341-1000	INTEREST EARNINGS	0.00	61.36	115.33
07-364-1100	C.C. TAPPING FEES	2,300.00	0	0
07-364-1110	R.C.TAPPING FEES	4,332.72	16,500.00	0
07-364-1130	CONNECTION FEES - SEWER	563.76	0	0
07-380-1000	MISCELLANEOUS REVENUE	282.24	0	0
07-392-0500	TRANSFER FROM SEWER OPERATING	319,438.19	73,577.72	52,014.90
07-392-0900	TRANSFER FROM SEWER CAP RESERVE	1,033,650.00	35,669.39	334,610.07
<b>Total Revenue</b>		<b>1,360,566.91</b>	<b>125,808.47</b>	<b>386,740.30</b>
<b>EXPENSES</b>				
07-424-1400	ADMINISTRATIVE WAGES	47,871.20	12,569.62	11,967.80
07-424-3000	MISCELLANEOUS EXPENSE	1,645.71	0	780.00
07-424-3110	MUNIC.AUTH.-AUDITING	12,000.00	7,500.00	12,000.00
07-424-3130	ENGINEERING SERVICES	61,000.00	35,942.75	3,487.25
07-424-3140	LEGAL SERVICES	6,500.00	1,428.60	1,973.50
07-424-3700	CHESTER CREEK ENGINEERING	42,000.00	0	5,777.50
07-424-3705	HUNT COUNTY ENGINEERING	95,000.00	16,136.75	0
07-424-7431	CAPITAL PROJ.-ENGINEERING	60,000.00	0	0
07-424-7490	CAP.REPLACEMENT R.C.	126,000.00	0	6,413.85
07-429-1503	HERSHEYS MILL PUMP STATION CAPITAL	0.00	4,251.50	20,850.00
07-429-1504	HUNT CO PUMP STATION CAPITAL	515,550.00	0	0
07-429-1505	RCSTP CAPITAL	50,000.00	23,809.39	69,223.04
07-429-3700	CHESTER CREEK CAPITAL	343,000.00	7,608.50	244,537.03
<b>Total Expenses</b>		<b>1,360,566.91</b>	<b>109,247.11</b>	<b>377,009.97</b>
<b>Net Result From Operations</b>		<b>0.00</b>	<b>16,561.36</b>	<b>9,730.33</b>

Municipal Authority  
YTD Revenues and Expenses thru 4/30/2026

Account Number	Account Description	Date	Type	Transaction Data/Comment	Amount
07-341-1000	INTEREST EARNINGS	01/31/26	Revenue Journal	INTEREST EARNED JANUARY 2026	12.81
07-341-1000	INTEREST EARNINGS	02/28/26	Revenue Journal	INTEREST EARNED FEBRUARY 2026	12.04
07-341-1000	INTEREST EARNINGS	03/31/26	Revenue Journal	INTEREST EARNED MARCH 2026	13.53
07-341-1000	INTEREST EARNINGS	04/30/26	Revenue Journal	INTEREST EARNED APRIL 2026	22.98
07-364-1110	R.C.TAPPING FEES	02/20/26	Revenue Journal	INSPECTION FEE R.C. 1427 MILLSTONE	2,000.00
07-364-1110	R.C.TAPPING FEES	02/20/26	Revenue Journal	SEWER INSPECTION FEE R.C. 1427 MILLSTONE	750.00
07-364-1110	R.C.TAPPING FEES	02/20/26	Revenue Journal	INSPECTION FEE R.C. 1411 MILLSTONE	2,000.00
07-364-1110	R.C.TAPPING FEES	02/20/26	Revenue Journal	SEWER INSPECTION FEE R.C. 1411 MILLSTONE	750.00
07-364-1110	R.C.TAPPING FEES	02/20/26	Revenue Journal	INSPECTION FEE R.C. 1417 MILLSTONE	2,000.00
07-364-1110	R.C.TAPPING FEES	02/20/26	Revenue Journal	SEWER INSPECTION FEE R.C. 1417 MILLSTONE	750.00
07-364-1110	R.C.TAPPING FEES	03/11/26	Revenue Journal	INSPECTION FEE 301 RESERVOIR RD LOT 5	2,000.00
07-364-1110	R.C.TAPPING FEES	03/11/26	Revenue Journal	SEWER INSPECTION FEE 301 RESERVOIR LOTS	750.00
07-364-1110	R.C.TAPPING FEES	03/31/26	Revenue Journal	INSPECTION FEE R.C. 1415 MILLSTONE	2,000.00
07-364-1110	R.C.TAPPING FEES	03/31/26	Revenue Journal	SEWER INSPECTION FEE R.C. 1415 MILLSTONE	750.00
07-364-1110	R.C.TAPPING FEES	04/06/26	Revenue Journal	INSPECTION FEE R.C. 1406 TIMBERMILL LN	2,000.00
07-364-1110	R.C.TAPPING FEES	04/06/26	Revenue Journal	SEWER INSPECT FEE R.C.1406 TIMBERMILL LN	750.00
07-392-0500	TRANSFER FROM SEWER OPERATING	01/21/26	Revenue Journal	XFER FROM 05 SEWER OPERATING TO 07 MA	612.50
07-392-0500	TRANSFER FROM SEWER OPERATING	02/10/26	Revenue Journal	XFER FROM 05 SEWER OPERATING TO 07 MA	19,333.75
07-392-0500	TRANSFER FROM SEWER OPERATING	03/10/26	Revenue Journal	XFER FROM 05 SEWER OPERATING TO 07 MA	7,864.75
07-392-0500	TRANSFER FROM SEWER OPERATING	03/17/26	Revenue Journal	XFER FROM 05 SEWER OPERATING TO 07 MA	7,500.00
07-392-0500	TRANSFER FROM SEWER OPERATING	03/27/26	Revenue Journal	XFER FROM 05 SEWER OPERATING TO 07 MA	12,569.62
07-392-0500	TRANSFER FROM SEWER OPERATING	04/15/26	Revenue Journal	XFER FROM 05 SEWER OPERATING TO 07 MA	25,697.10
07-392-0900	TRANSFER FROM SEWER CAP RESERVE	01/21/26	Revenue Journal	XFER FROM 09 SEWER CAP TO 07 MA	4,251.50
07-392-0900	TRANSFER FROM SEWER CAP RESERVE	03/31/26	Revenue Journal	XFER FROM 09 SEWER CAP TO 07 MA	15,524.69
07-392-0900	TRANSFER FROM SEWER CAP RESERVE	04/15/26	Revenue Journal	XFER FROM 09 SEWER CAP TO 07 MA	7,608.50
07-392-0900	TRANSFER FROM SEWER CAP RESERVE	04/15/26	Revenue Journal	XFER FROM 09 SEWER CAP TO 07 MA	8,284.70
<b>Total Revenue</b>					<b>125,808.47</b>
07-424-1400	ADMINISTRATIVE WAGES	03/27/26	Pay Check: 715	26-00698 QTR 1 2026 MA CHARGE BACK	12,569.62
07-424-3110	MUNIC.AUTH.-AUDITING	03/17/26	Pay Check: 3587	26-00635 PROGRESS BILLING AUDIT EGT MUA	7,500.00
07-424-3130	ENGINEERING SERVICES	02/10/26	Pay Check: 3584	26-00338 SERV THRU 123125 2025 GEN SERV	4,835.25
07-424-3130	ENGINEERING SERVICES	02/10/26	Pay Check: 3584	26-00339 SERV THRU 123125 MORSTEIN RD	14,225.50
07-424-3130	ENGINEERING SERVICES	03/10/26	Pay Check: 3586	26-00549 SERV THRU 021526 25 CHAPTER 94	2,635.00
07-424-3130	ENGINEERING SERVICES	03/10/26	Pay Check: 3586	26-00550 SERV THRU 021526 MORSTEIN RD	4,546.75
07-424-3130	ENGINEERING SERVICES	04/14/26	Pay Check: 3591	26-00867 SERV THRU 032226 2026 GEN SERV	9,700.25
07-424-3140	LEGAL SERVICES	01/21/26	Pay Check: 3581	26-00116 LEGAL SERV DEC 2025 GEN AUTH	612.50
07-424-3140	LEGAL SERVICES	02/10/26	Pay Check: 3583	26-00337 LEGAL SERV JAN 2026 GEN AUTH	273.00
07-424-3140	LEGAL SERVICES	03/10/26	Pay Check: 3585	26-00548 LEGAL SERV FEB 2026 GEN AUTH	205.00

Municipal Authority  
 YTD Revenues and Expenses thru 4/30/2026

Account Number	Account Description	Date	Type	Transaction Data/Comment	Amount
07-424-3140	LEGAL SERVICES	04/14/26	Pay Check: 3590	26-00868 LEGAL SERV MARCH 2026 GEN AUTH	338.10
07-424-3705	HUNT COUNTY ENGINEERING	03/10/26	Pay Check: 3586	26-00551 SERV THRU 021526 HUNT CTRY PUM	478.00
07-424-3705	HUNT COUNTY ENGINEERING	04/14/26	Pay Check: 3591	26-00865 SERV THRU 032226 HUNT CTRY PUM	15,658.75
07-429-1503	HERSHEYS MILL PUMP STATION CAPITAL	01/21/26	Pay Check: 3582	26-00147 HERSHEY MILLS PUMP ST- MISSION	4,251.50
07-429-1505	RCSTP CAPITAL	03/31/26	Pay Check: 3588	26-00757 AERATION PUMP REPAIR- FLYGT Z3	15,524.69
07-429-1505	RCSTP CAPITAL	04/14/26	Pay Check: 3589	26-00819 SLUDGE PUMP REPAIR-FLYGT Z3-TP	8,284.70
07-429-3700	CHESTER CREEK CAPITAL	04/14/26	Pay Check: 3591	26-00866 SERV THRU 032226 WATERVIEW PIP	7,608.50

**Total Expense** 109,247.11

**Net Operating** 16,561.36

## Lynn Werkheiser

---

**From:** Michael Ellis <MEllis@Pennoni.com>  
**Sent:** Wednesday, May 6, 2026 11:30 PM  
**To:** Mark Miller; Lynn Werkheiser  
**Cc:** Derek Davis; Erika Addison; Nathan M. Cline  
**Subject:** Morstein Rd Sewer Extension Progress Plans  
**Attachments:** DRAFT Cost Estimates 2025-05-09.pdf; Morstein Rd Sewer Extension Progress Plans 2026-04-22.pdf

Hi Mark and Lynn,

Attached are progress plans for the subject project. These plans are estimated to be approx 75% complete, which is the level of completion for which the MA has initially authorized. We anticipate a few sewer runs can be slightly shallower, and we will be updating the plans accordingly to complete this initial design scope.

Also attached is our pre-design cost opinions from 2025. The current design is similar to that of Alternative 2 in the cost opinions except that sewer is now proposed along Waterford Rd also. Waterford was not considered in that cost opinion. Assuming around \$1.9M (+\$400K extra for Waterford beyond the original cost opinion) for 30 properties, this would cost roughly \$65,000/property. We will update the cost opinions after the aforementioned plan updates are complete.

I suggest these plans and cost opinions be provided to the MA for a progress update discussion at Monday's meeting.

Mike

### Michael Ellis, PE

Municipal Division Manager

### Pennoni

Christiana Executive Campus, 121 Continental Drive, Suite 207 | Newark, DE 19713

**Direct:** +1 302-351-5236 | **Mobile:** +1 302-561-4235

[www.pennoni.com](http://www.pennoni.com) | [MEllis@Pennoni.com](mailto:MEllis@Pennoni.com)



[Celebrating 60 Years!](#)



**EAST GOSHEN MUNICIPAL AUTHORITY**  
**MORSTEIN ROAD SANITARY SEWER EXTENSION**  
**ALTERNATIVE 1**  
**BUDGETARY OPINION OF PROBABLE CONSTRUCTION COSTS**

5/9/2025

Description	Quantity	Units	Unit Price	Total
<b>GENERAL</b>				
Mobilization & Demobilization	1	LS	\$60,500.00	\$60,500
Survey & Layout	1	LS	\$5,000.00	\$5,000
Site Preparation and Erosion & Sediment Controls	1	LS	\$5,000.00	\$5,000
Traffic Control	1	LS	\$10,000.00	\$10,000
Miscellaneous Excavation & Backfill	25	CY	\$100.00	\$2,500
SUBTOTAL				\$83,000
<b>SANITARY SEWER</b>				
Low Pressure Sewer	2,850	LF	\$150.00	\$427,500
8" Gravity Sewer	200	LF	\$225.00	\$45,000
Manhole	2	EA	\$9,000.00	\$18,000
Grinder Pump	19	EA	\$15,000.00	\$285,000
Doghouse Manhole	1	EA	\$9,000.00	\$9,000
SUBTOTAL				\$784,500
<b>RESTORATION</b>				
Grading/Lawn/Site Restoration	1	LS	\$5,000.00	\$5,000
Driveway Restoration	100	SY	\$85.00	\$8,500
Roadway Restoration (5" Base & 2.5" Binder)	311	SY	\$100.00	\$31,111
1.5" Mill & Wearing Course Overlay	467	SY	\$25.00	\$11,667
SUBTOTAL				\$56,278
CONSTRUCTION SUBTOTAL				\$923,778
20% CONTINGENCY				\$184,756
15% ENGINEERING & INSPECTIONS				\$138,567
TOTAL				\$1,247,100
<b>TOTAL (rounded)</b>				<b>\$1,248,000</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.



**EAST GOSHEN MUNICIPAL AUTHORITY**  
**MORSTEIN ROAD SANITARY SEWER EXTENSION**  
**ALTERNATIVE 2**  
**BUDGETARY OPINION OF PROBABLE CONSTRUCTION COSTS**

5/9/2025

Description	Quantity	Units	Unit Price	Total
<b>GENERAL</b>				
Mobilization & Demobilization	1	LS	\$71,300.00	\$71,300
Survey & Layout	1	LS	\$5,000.00	\$5,000
Site Preparation and Erosion & Sediment Controls	1	LS	\$5,000.00	\$5,000
Traffic Control	1	LS	\$15,000.00	\$15,000
Miscellaneous Excavation & Backfill	25	CY	\$100.00	\$2,500
SUBTOTAL				\$98,800
<b>EAST MORSTEIN LOW PRESSURE SEWER</b>				
Low Pressure Sewer	880	LF	\$150.00	\$132,000
Grinder Pump	6	EA	\$15,000.00	\$90,000
SUBTOTAL				\$222,000
<b>GREAT OAK CIRCLE LOW PRESSURE SEWER</b>				
Low Pressure Sewer	780	LF	\$150.00	\$117,000
Grinder Pump	5	EA	\$15,000.00	\$75,000
SUBTOTAL				\$192,000
<b>GRAVITY SANITARY SEWER</b>				
8" Gravity Sewer	1,390	LF	\$225.00	\$312,750
Sewer Lateral	400	LF	\$150.00	\$60,000
Manhole	5	EA	\$9,000.00	\$45,000
Doghouse Manhole	1	EA	\$9,000.00	\$9,000
SUBTOTAL				\$426,750
<b>RESTORATION</b>				
Grading/Lawn/Site Restoration	1	LS	\$5,000.00	\$5,000
Driveway Restoration	100	SY	\$85.00	\$8,500
Roadway Restoration (5" Base and 2.5" Binder)	872	SY	\$100.00	\$87,222
1.5" Mill & Wearing Course Overlay	1,953	SY	\$25.00	\$48,833
SUBTOTAL				\$149,556
<b>CONSTRUCTION SUBTOTAL</b>				\$1,089,106
<b>20% CONTINGENCY</b>				\$217,821
<b>15% ENGINEERING &amp; INSPECTIONS</b>				\$163,366
<b>TOTAL</b>				\$1,470,293
<b>TOTAL (rounded)</b>				<b>\$1,471,000</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.



**EAST GOSHEN MUNICIPAL AUTHORITY**  
**MORSTEIN ROAD SANITARY SEWER EXTENSION**  
**ALTERNATIVE 3**  
**BUDGETARY OPINION OF PROBABLE CONSTRUCTION COSTS**

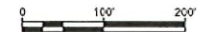
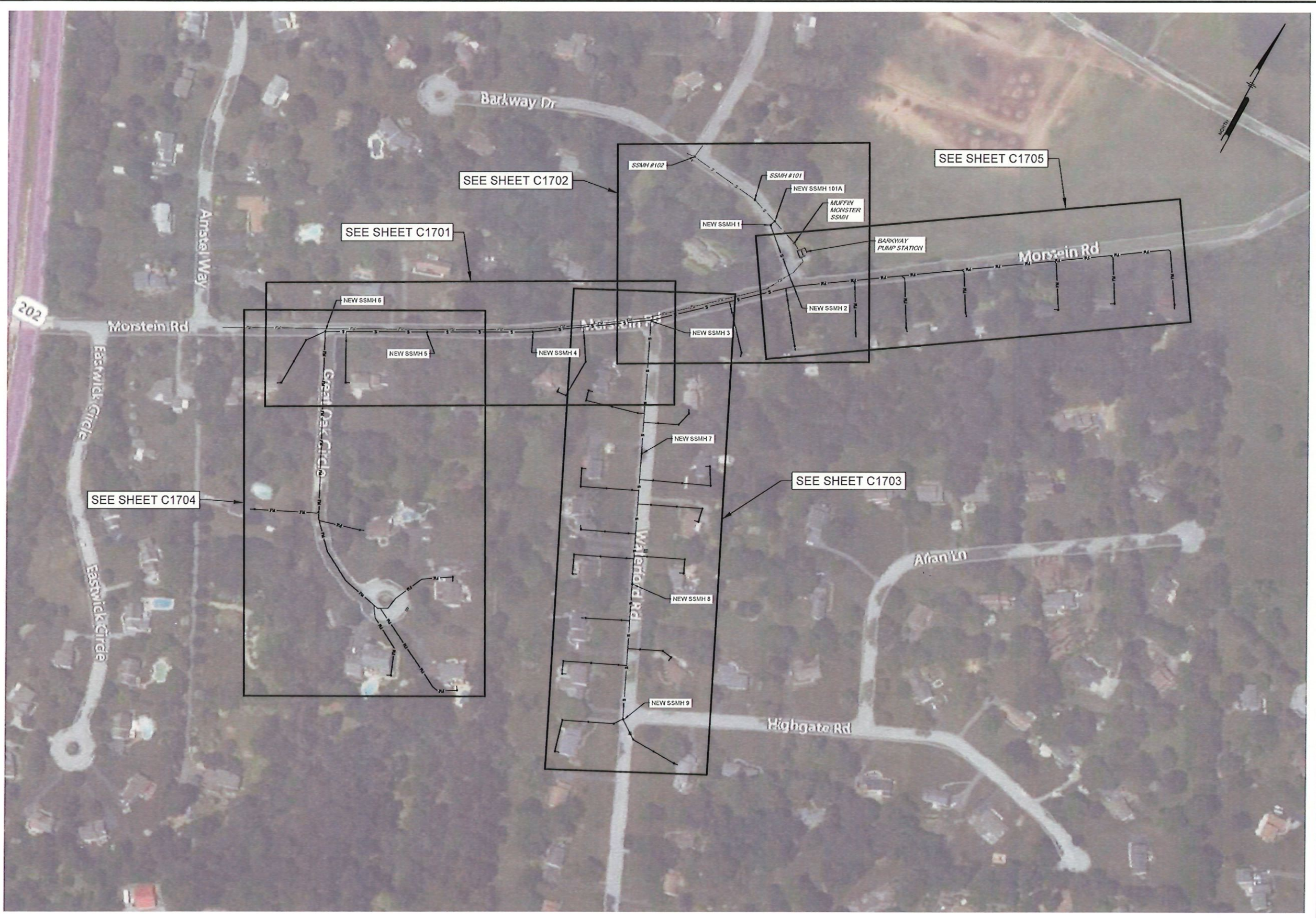
5/9/2025

Description	Quantity	Units	Unit Price	Total
<b>GENERAL</b>				
Mobilization & Demobilization	1	LS	\$69,800.00	\$69,800
Survey & Layout	1	LS	\$5,000.00	\$5,000
Site Preparation and Erosion & Sediment Controls	1	LS	\$5,000.00	\$5,000
Traffic Control	1	LS	\$15,000.00	\$15,000
Miscellaneous Excavation & Backfill	25	CY	\$100.00	\$2,500
SUBTOTAL				\$97,300
<b>EAST MORSTEIN LOW PRESSURE SEWER</b>				
Low Pressure Sewer	880	LF	\$150.00	\$132,000
Grinder Pump	6	EA	\$15,000.00	\$90,000
SUBTOTAL				\$222,000
<b>GREAT OAK CIRCLE LOW PRESSURE SEWER</b>				
Low Pressure Sewer	780	LF	\$150.00	\$117,000
Grinder Pump	5	EA	\$15,000.00	\$75,000
SUBTOTAL				\$192,000
<b>GRAVITY SANITARY SEWER</b>				
8" Gravity Sewer	1,375	LF	\$225.00	\$309,375
Sewer Lateral	400	LF	\$150.00	\$60,000
Manhole	7	EA	\$9,000.00	\$63,000
Doghouse Manhole	1	EA	\$9,000.00	\$9,000
Connection to Existing Manhole	2	EA	\$3,500.00	\$7,000
Easements			TBD	TBD
SUBTOTAL				\$448,375
<b>RESTORATION</b>				
Grading/Lawn/Site Restoration	1	LS	\$10,000.00	\$10,000
Driveway Restoration	100	SY	\$85.00	\$8,500
Roadway Restoration (5" Base and 2.5" Binder)	572	SY	\$100.00	\$57,222
1.5" Mill & Wearing Course Overlay	1,233	SY	\$25.00	\$30,833
SUBTOTAL				\$106,555
<b>CONSTRUCTION SUBTOTAL</b>				\$1,066,231
<b>20% CONTINGENCY</b>				\$213,246
<b>15% ENGINEERING &amp; INSPECTIONS</b>				\$159,935
<b>TOTAL</b>				<b>\$1,439,411</b>
<b>TOTAL (rounded)</b>				<b>\$1,440,000</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.



U:\Projects\GMAU\GMAU25006\Morstein Rd Sanitary Sewer Design and Permitting\SSM\SSM10000.dwg PLOTTED: 6/22/2016 11:46:17 AM BY: ELM/ANW © 2016 PDS/PAV/MS/MS/MS PROJECT STATUS: —



**NOT FOR CONSTRUCTION**

**Pennoni**  
**PENNONI ASSOCIATES INC.**  
 Christiana Executive Campus  
 121 Continental Drive, Suite 207  
 Newark, DE 19713-4310  
 T 302.654.4451 F 302.654.2895

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR  
 AND OWNER MUST BE NOTIFIED OF ANY  
 DISCREPANCIES BEFORE PROCEEDING WITH WORK

**MORSTEIN ROAD SANITARY SEWER EXTENSION**  
 MORSTEIN ROAD  
 WEST CHESTER, PA  
**SITE REFERENCE PLAN**  
 EAST GOSHEN MUNICIPAL AUTHORITY  
 1580 PAOLI PIKE  
 WEST CHESTER, PA 19380

NO.	DATE	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES  
 AND INSTRUMENTED BY PENNONI ASSOCIATES OR THE  
 PROJECT. THEY ARE NOT INTENDED OR REPRESENTED  
 TO BE SUPPLEMENTED BY OTHER DOCUMENTS OR  
 THE EXTENSION OF THE PROJECT OR ON ANY OTHER  
 PROJECT. ANY REUSE WITHOUT WRITTEN PERMISSION  
 OR ADAPTATION BY PENNONI ASSOCIATES FOR THE  
 PROJECT PURPOSES INTENDED SHALL BE AT OWNERS  
 SOLE RISK AND WITHOUT LIABILITY OR LEGAL  
 REMEDY TO PENNONI ASSOCIATES AND OWNER.  
 SHALL BE FOR HIMSELF AND HOLD HARMLESS PENNONI  
 ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND  
 EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

PROJECT: EGMAU25006  
 DATE: 2016-04-29  
 DRAWING SCALE: 1"=100'  
 DRAWN BY: ELA  
 APPROVED BY: MUE

**C0001**  
 SHEET 2 OF 12



**Pennoni**  
**PENNONI ASSOCIATES INC.**  
 Christina Executive Campus  
 121 Confrontal Drive, Suite 207  
 Newark, DE 19713-4310  
 T 302.655.4451 F 302.654.2855

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR  
 AND OWNER MUST BE ADVISED OF ANY  
 DISCREPANCIES BEFORE PROCEEDING WITH WORK

**MORSTEIN ROAD SANITARY SEWER EXTENSION**  
 MORSTEIN ROAD  
 WEST CHESTER, PA

**EXISTING CONDITIONS PLAN**  
 EAST COSHEN MUNICIPAL AUTHORITY  
 1580 PAOLI PIKE  
 WEST CHESTER, PA 19380

NO.	DATE	BY	REVISIONS

PROJECT: EGMAU25006  
 DATE: 2026-04-29  
 DRAWING SCALE: 1"=50'  
 DRAWN BY: ELA  
 APPROVED BY: LAJE

**NOT FOR CONSTRUCTION**



ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

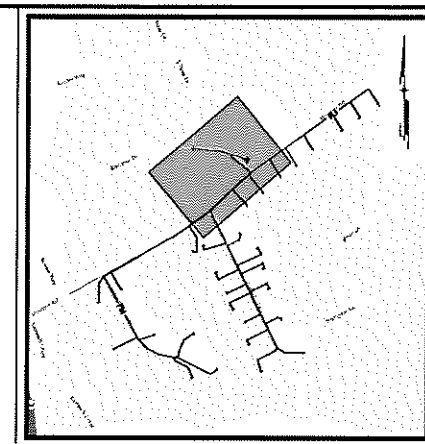
**MORSTEIN ROAD SANITARY SEWER EXTENSION**  
 WEST CHESTER, PA  
**PLAN AND PROFILE**  
 EAST GOSHEN MUNICIPAL AUTHORITY  
 1880 PAOLI PIKE  
 WEST CHESTER, PA 19380

PROJECT: EGMAU25006  
 DATE: 2025-04-29  
 DRAWING SCALE: AS NOTED  
 DRAWN BY: ELA  
 APPROVED BY: JAV

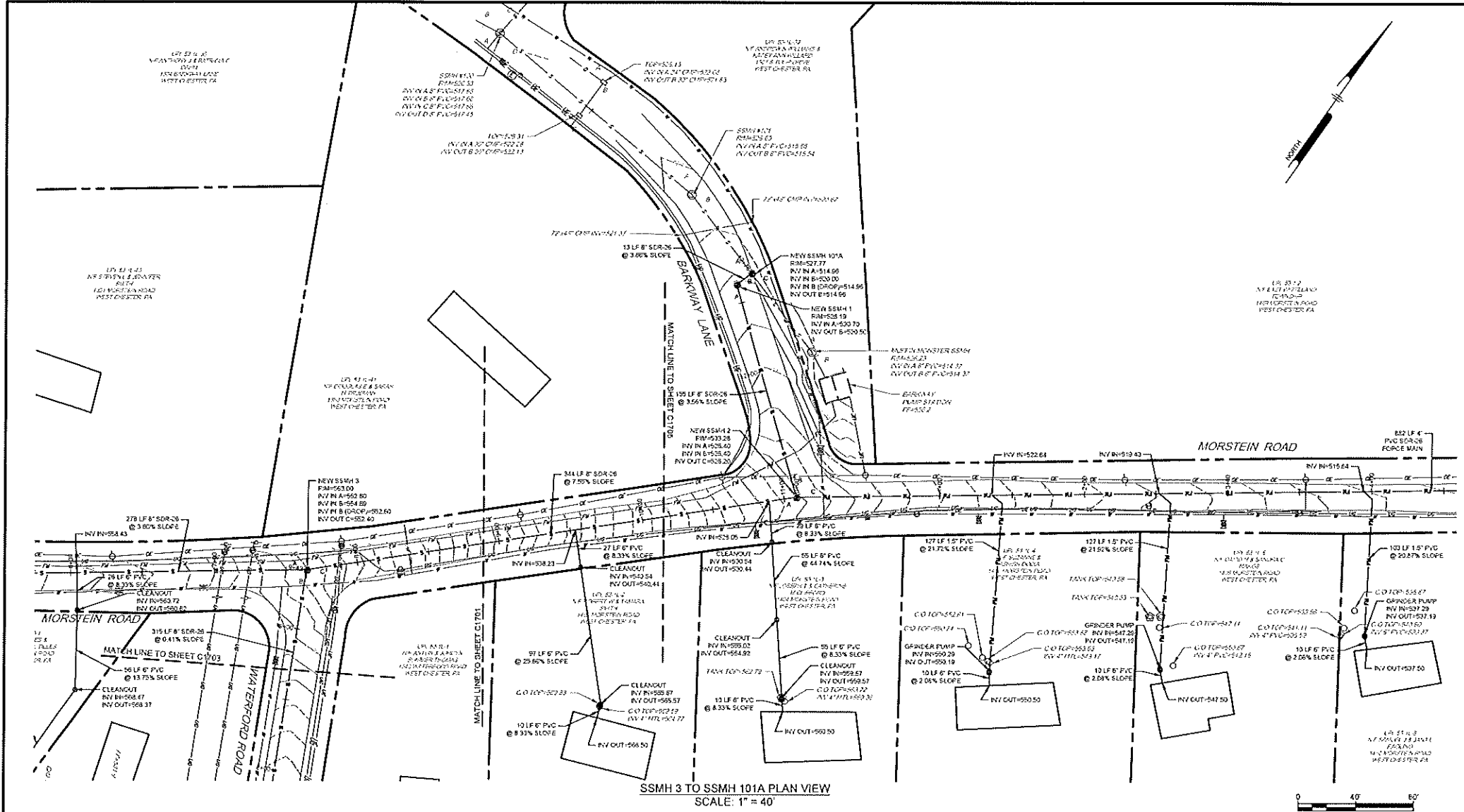
NO.	DATE	REVISIONS	BY

ALL DIMENSIONS SHOWN ON THIS DRAWING ARE BASED ON THE RECORD DRAWINGS AND FIELD SURVEY DATA. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS IN THE FIELD BEFORE CONSTRUCTION. ANY DISCREPANCIES SHOULD BE REPORTED IMMEDIATELY TO THE ENGINEER.

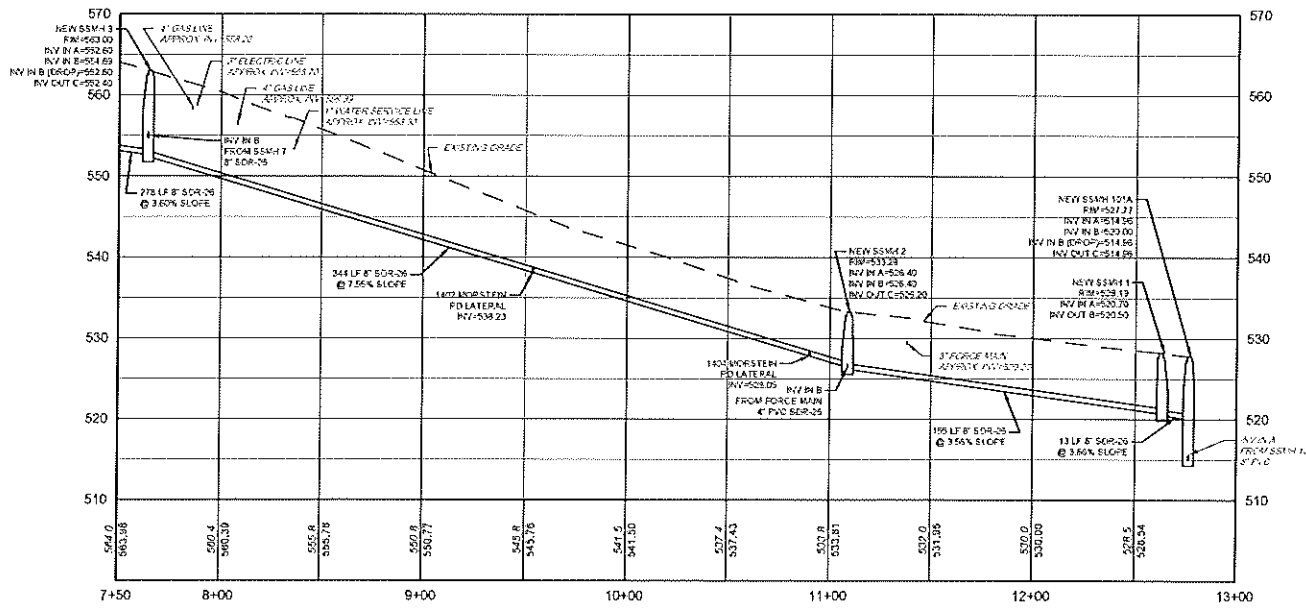
PROJECT: EGMAU25006  
 DATE: 2025-04-29  
 DRAWING SCALE: AS NOTED  
 DRAWN BY: ELA  
 APPROVED BY: JAV



**LOCATION MAP**  
 SCALE: 1" = 500'



**SSMH 3 TO SSMH 101A PLAN VIEW**  
 SCALE: 1" = 40'



**SSMH 3 TO SSMH 101A PROFILE VIEW: STA. 7+50 - 13+00**  
 HORIZONTAL SCALE: 1" = 40'  
 VERTICAL SCALE: 1" = 10'

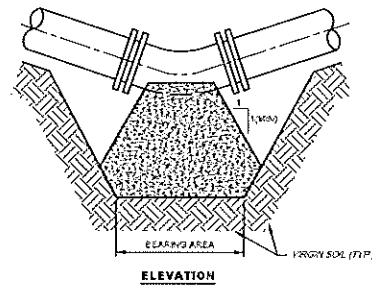
**NOT FOR CONSTRUCTION**









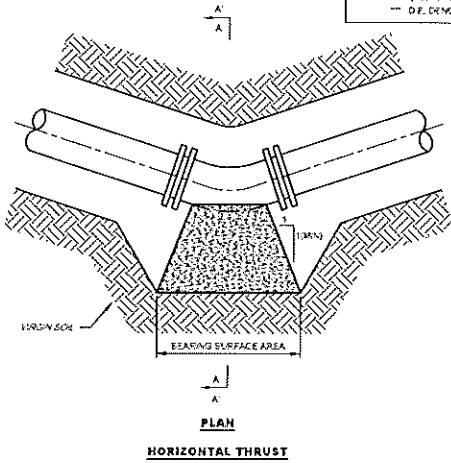


**ELEVATION**  
VERTICAL THRUST DOWNWARD

BEARING SURFACE REQUIRED - 50 FT.  
THRUST BLOCKING FOR HORIZONTAL AND VERTICAL DOWNWARD THRUSTS  
\* 200 P.S.I. VIBRATORY FALLS SURF

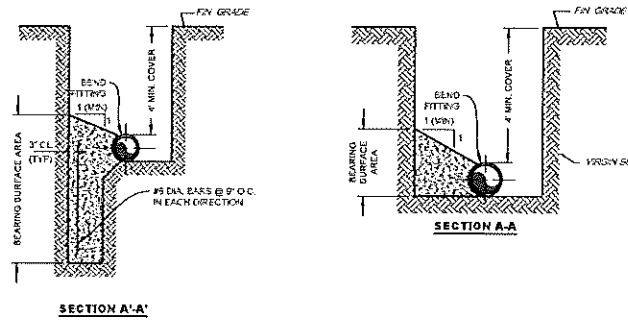
PIPE SIZES	ALLOWABLE LOAD TON/50 FT.	DEGREE OF BEND OR DEFLECTION ***														
		6" AND 8"			12" AND 12"			16", 18" AND 20"			24"					
TYPE OF BEARING MATERIAL		22.5	45	90	D.E.	22.5	45	90	D.E.	22.5	45	90	D.E.			
SAND	0.75	6.8	12.0	22.0	14.7	13.4	25.6	45.8	32.5	35.2	65.1	127.3	50.3	52.2	99.5	163.1
SOFT CLAY	1	5.2	9.2	18.4	11.1	10.0	19.2	35.0	24.4	26.4	51.8	95.7	39.0	39.2	74.7	137.9
SAND & GRAVEL	2	2.6	4.5	8.2	5.5	5.0	9.6	17.8	12.2	13.2	25.9	47.9	23.9	13.6	37.3	69.0
CLAY	4	2.0	2.4	4.2	2.8	2.6	4.8	8.8	6.1	6.5	13.0	23.9	16.9	8.8	13.7	24.4
SOFT ROCK	5	2.0	2.0	3.3	2.2	2.0	3.8	7.0	5.0	5.3	10.4	13.1	13.5	7.8	14.9	27.6
ROCK	15	2.0	2.0	2.0	2.0	2.0	2.4	1.6	2.0	3.5	5.4	4.5	2.6	5.0	9.2	8.5

NOTES:  
\* MUST BE ADJUSTED FOR TEST PRESSURES ABOVE 200 P.S.I.  
\*\* SOIL TESTING AGENCY TO ESTABLISH ALLOWABLE BEARING PRESSURE BASED ON FIELD CONDITIONS AND BEARING AREAS ARE TO BE ADJUSTED ACCORDINGLY.  
\*\*\* ALLOWANCES MUST BE MADE FOR SATURATED SOILS.  
D.E. DENOTES DEAD END AND APPLIES AT TEES AND PLUGS.

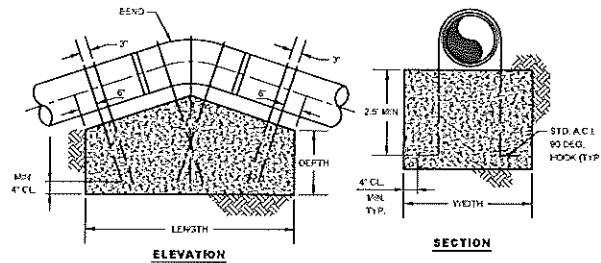


**PLAN**  
HORIZONTAL THRUST

CONCRETE THRUST BLOCKS FOR HORIZONTAL AND VERTICAL DOWNWARD THRUST  
NOT TO SCALE



**SECTION A-A'**



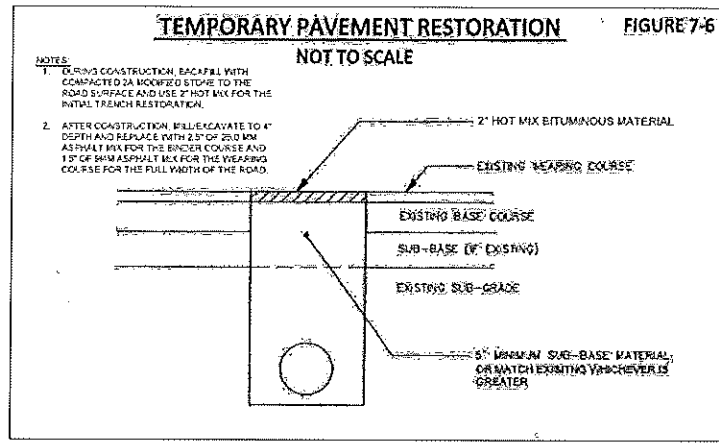
- NOTES:**
- FOR 4" AND 6" PIPE, USE THREE #4 BARS OVER FITTING ONLY.
  - FOR 8" THROUGH 20" PIPE, USE SIX #8 BARS WITH TWO OVER FITTINGS AND FOUR OVER PIPES.
  - FOR 24" PIPE, USE SEVEN #7 BARS AS SHOWN.
  - COVER ALL FITTINGS AND JOINTS WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE.
  - REINFORCING STEEL TO BE ASTM A-615, GRADE 60.
  - COVER ALL FITTINGS AND JOINTS WITH POLYETHYLENE FILM BEFORE PLACING CONCRETE.
  - COAT ALL EXPOSED FERROUS SURFACES WITH TWO COATS EPOXY-BASED ASPHALTIC PRIMER PER MFG'S RECOMMENDATIONS.
  - COAT REINFORCING BARS TO U SHAPE CONFORMING TO OUTSIDE PIPE DIAMETER.
  - KEEP CONCRETE CLEAR OF JOINTS AND LUGS.
  - FORM UNSUPPORTED AREAS OF CONCRETE.

MINIMUM THRUST BLOCKING DIMENSIONS \*  
FOR VERTICAL UPWARD THRUST  
200 P.S.I. TEST PRESSURE

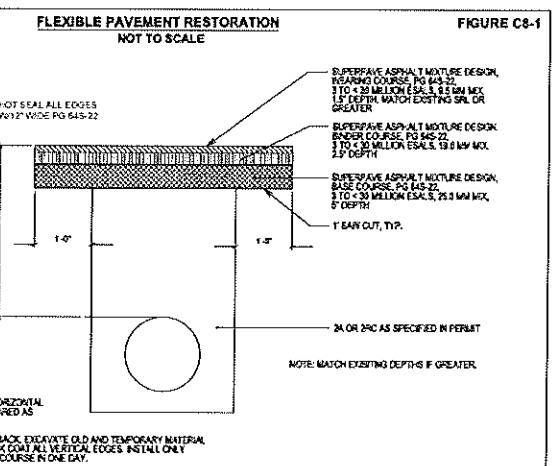
PIPE SIZES (IN.)	DEGREE OF BEND OR DEFLECTION								
	11.25	22.5	45	11.25	22.5	45	11.25	22.5	45
	LENGTH (FT.)	WIDTH (FT.)	DEPTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	DEPTH (FT.)	LENGTH (FT.)	WIDTH (FT.)	DEPTH (FT.)
6-8	4.0	4.5	3.0	4.0	4.5	3.0	4.0	4.5	3.0
12-12	4.5	5.0	4.0	4.0	5.0	4.0	4.0	5.0	4.0
14-16	5.5	6.0	5.0	5.0	6.0	5.0	5.0	6.0	5.0
18-20	6.0	7.5	6.0	6.0	7.5	6.0	6.0	7.5	6.0
24	6.5	10.0	8.0	8.0	10.0	8.0	8.0	10.0	8.0

\* ALLOWANCES MUST BE MADE FOR SATURATED SOILS AND SIZES ADJUSTED ACCORDINGLY.

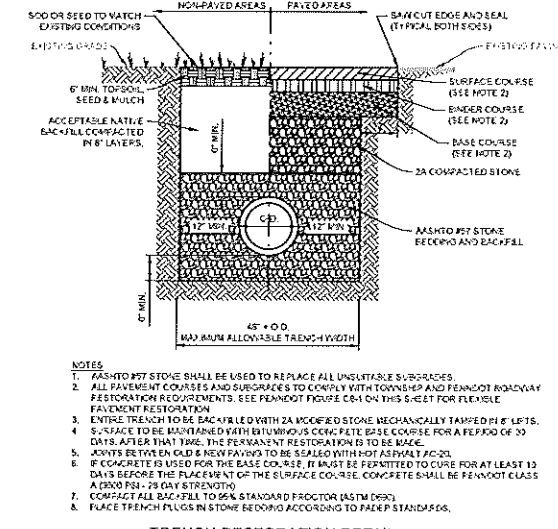
CONCRETE THRUST BLOCKS FOR VERTICAL UPWARD THRUST  
NOT TO SCALE



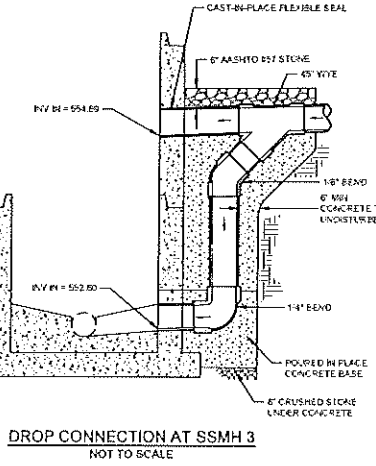
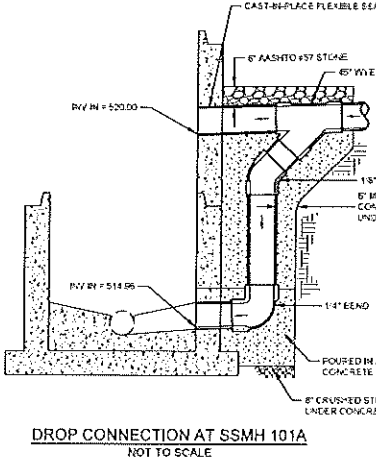
- NOTES:**
- BEFORE CONSTRUCTION, EACH HILL WITH COMPACTED OR BROOKED STONE TO THE ROAD SURFACE AND USE 2" HOT MIX FOR THE INITIAL TRENCH RESTORATION.
  - AFTER CONSTRUCTION, HILL EXCAVATE TO 4" DEPTH AND REPLACE WITH 2 1/2" OF 200 MM ASPHALT MIX FOR THE BINDER COURSE AND 1 1/2" OF 3/4" ASPHALT MIX FOR THE WEARING COURSE FOR THE FULL WIDTH OF THE ROAD.



- COMMENTS:**
- EXPOSED VERTICAL AND HORIZONTAL SURFACES SHALL BE PREPARED AS PER P. 604.02, 604.03, 604.04, 604.05, 604.06, 604.07, 604.08, 604.09, 604.10, 604.11, 604.12, 604.13, 604.14, 604.15, 604.16, 604.17, 604.18, 604.19, 604.20, 604.21, 604.22, 604.23, 604.24, 604.25, 604.26, 604.27, 604.28, 604.29, 604.30, 604.31, 604.32, 604.33, 604.34, 604.35, 604.36, 604.37, 604.38, 604.39, 604.40, 604.41, 604.42, 604.43, 604.44, 604.45, 604.46, 604.47, 604.48, 604.49, 604.50, 604.51, 604.52, 604.53, 604.54, 604.55, 604.56, 604.57, 604.58, 604.59, 604.60, 604.61, 604.62, 604.63, 604.64, 604.65, 604.66, 604.67, 604.68, 604.69, 604.70, 604.71, 604.72, 604.73, 604.74, 604.75, 604.76, 604.77, 604.78, 604.79, 604.80, 604.81, 604.82, 604.83, 604.84, 604.85, 604.86, 604.87, 604.88, 604.89, 604.90, 604.91, 604.92, 604.93, 604.94, 604.95, 604.96, 604.97, 604.98, 604.99, 604.100.
  - MINIMUM PAVEMENT OUTSIDE EXISTING OLD AND TEMPORARY MATERIAL RECONSTRUCT SURFACE, TACK COAT ALL VERTICAL EDGES, INSTALL ONLY BASE COURSE AND BINDER COURSE IN ONE DAY.
  - AT CONTRACTOR'S DISCRETION, 7.5" OF 25M MIX BASE COURSE MAY BE SUBSTITUTED FOR THE COMBINED 2.5" BINDER COURSE AND 5" BASE COURSE, TO BE PLACED IN TWO LIFTS OF MAXIMUM 5" COMPACTED DEPTH.
  - MATCH EXISTING PAVEMENT DEPTH IF GREATER THAN 9" BY USING ADDITIONAL BASE COURSE.



- NOTES:**
- ASPHALT #57 STONE SHALL BE USED TO REPLACE ALL UNSUITABLE SUBGRADES.
  - ALL PAVEMENT COURSES AND SURFACES TO COMPLY WITH TOWNSHIP AND PENNSYLVANIA ROADWAY RESTORATION REQUIREMENTS. SEE PENNDOT PUBLICATION 604 ON THIS SUBJECT FOR FLEXIBLE PAVEMENT RESTORATION.
  - ENTIRE TRENCH TO BE BACKFILL WITH 2A WOODFORD STONE MECHANICALLY TAMPED BY 6" LIFTS.
  - SURFACE TO BE BACKFILLED WITH BITUMINOUS CONCRETE BASE COURSE FOR A PERIOD OF 30 DAYS. AFTER THAT TIME, THE PERMANENT RESTORATION IS TO BE MADE.
  - JOINTS BETWEEN OLD & NEW PAVEMENTS TO BE SEALED WITH HOT ASPHALT ACCEL.
  - IF CONCRETE IS USED FOR THE BASE COURSE, IT MUST BE PERMITTED TO CURE FOR AT LEAST 10 DAYS BEFORE THE PLACEMENT OF THE SURFACE COURSE. CONCRETE SHALL BE PENNDOT CLASS A (2000 PSI - 28 DAY STRENGTH).
  - COMPACT ALL BACKFILL TO MIN. STANDARD PROCTOR (ASTM D698).
  - PLACE TRENCH PLUGS IN STONE BEDDING ACCORDING TO PADEP STANDARDS.



**DROP CONNECTION AT SSMH 101A**  
NOT TO SCALE

**DROP CONNECTION AT SSMH 3**  
NOT TO SCALE

**Pennoni**  
PENNONI ASSOCIATES INC.  
Christiana Executive Campus  
121 Continental Drive, Suite 207  
Newark, DE 19713-4310  
T 302.655.4431 F 302.654.2885

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND CORRECTED BEFORE PROCEEDING WITH WORK.  
DISCREPANCIES MUST BE CORRECTED BEFORE PROCEEDING WITH WORK.

MORSTEIN ROAD SANITARY SEWER EXTENSION  
MORSTEIN ROAD  
WEST CHESTER, PA  
CONSTRUCTION DETAILS  
EAST GOSHEN MUNICIPAL AUTHORITY  
1880 FACLI PIKE  
WEST CHESTER, PA 19380

NO.	DATE	REVISIONS	BY

PROJECT: EGMAU25006  
DATE: 2025-04-29  
DRAWING SCALE: NOT TO SCALE  
DRAWN BY: ELA  
APPROVED BY: JAU

**C6052**  
SHEET 10 OF 12



**PENNONI ASSOCIATES INC.**  
 Civil/Environmental Engineers  
 121 Continental Drive, Suite 207  
 Newark, DE 19713-4310  
 T 302.655.4451 F 302.654.2895

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER PLUS AND MINUS AS SHOWN. DISCREPANCIES BEFORE PROCEEDING WITH WORK.

**MORSTEIN ROAD SANITARY SEWER EXTENSION  
 EROSION & SEDIMENT CONTROL PLAN**

NO.	DATE	REVISIONS	BY

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES INC. ARE THE PROPERTY OF PENNONI ASSOCIATES INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF PENNONI ASSOCIATES INC. PENNONI ASSOCIATES INC. SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALL DIMENSIONS, LOCATIONS AND ELEVATIONS SHOWN ON THIS PLAN. THE USER SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, LOCATIONS AND ELEVATIONS SHOWN ON THIS PLAN.

PROJECT: EGMAU25006  
 DATE: 2008-04-29  
 DRAWING SCALE: 1"=50'  
 DRAWN BY: ELA  
 APPROVED BY: MAE

**C8001**  
 SHEET 11 OF 12



PROJECT FILES: \\pennoni\cadd\25006\EGMAU25006.dwg  
 PLOTTED: 2008-04-29 10:00 AM  
 PLOTTED BY: ELA  
 PENNONI ASSOCIATES INC.

**EROSION AND SEDIMENT CONTROL NOTES**

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS IS TAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE TOWNSHIP PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPs SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
- EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE TOWNSHIP OR ENGINEER.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, ET SEQ., AND 287.1, ET SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM P-101 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEP INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES — 6 TO 12 INCHES ON COMPACTED SOILS — PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOIL, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING PERIODS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM 10% PERMANENT TOXIC VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE TOWNSHIP OR ENGINEER.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE TOWNSHIP OR ENGINEER FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.

- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE TOWNSHIP OR ENGINEER TO SCHEDULE A FINAL INSPECTION.
- FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING IMPOSED BY THE DEPARTMENT AS DEFINED IN SECTION 502 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIALS/WASTES.
- UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
- CHANNELS HAVING RIPRAP, RENO MATTERS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
- EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
- FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS.
- ALL AREAS REQUIRING TEMPORARY STABILIZATION MUST BE ADDRESSED WITHIN 14 DAYS OF COMPLETION OF DISTURBANCE. SEEDING SHALL BE ACCOMPLISHED THROUGH THE USE OF HYDRO-SEEDING TECHNIQUES OR CONVENTIONAL SEEDING AND MULCHING AT THE RATE OF 3.0 TONS/ACRE.
- POLLUTANTS SUCH AS FUELS, LUBRICANTS, BITUMENS, RAW SEWAGE AND OTHER HARMFUL MATERIALS SHALL NOT BE DISCHARGED INTO OR NEAR RIVERS, STREAMS AND IMPOUNDMENTS, OR INTO NATURAL OR MANMADE CHANNELS LEADING THERE TO.
- ALL APPLICABLE REGULATIONS OF FISH AND WILDLIFE AGENCIES AND STATUTES RELATING TO THE PREVENTION AND ABATEMENT OF POLLUTION SHALL BE COMPLIED WITHIN THE PERFORMANCE OF THE CONTRACT.
- PERFORMANCE FACILITIES FOR CLEANING TREES, THE TIRES OF ALL VEHICLES SHALL BE CLEANED PRIOR TO LEAVING THE SITE. AT THE END OF EACH CONSTRUCTION DAY, THE CONTRACTOR SHALL CLEAN AND REMOVE ANY MUD OR SEDIMENT THAT HAS BEEN TRACKED ONTO PUBLIC ROADS AND OUTSIDE THE LIMITS OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOT STOCKPILE EQUIPMENT, TOPSOIL, MATERIALS, ETC. IN OTHERWISE UNDISTURBED LAWN AREAS, AND AREAS INDICATED FOR THE PRESERVATION OF EXISTING VEGETATION.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THERE IS SUFFICIENT TEMPORARY COVER ON ALL PIPING DURING CONSTRUCTION TO PREVENT DAMAGE TO PIPES.
- THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE 10, WATER RESOURCES, CHAPTER 102, EROSION CONTROL. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 102, EROSION CONTROL OF THE ADMINISTRATIVE CODE TITLE 25 OF THE STATE OF PENNSYLVANIA.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS AND DOCUMENTATION OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY.
- ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED FOR MORE THAN 14 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MAY BE SEEDED AND MULCHED WITH A QUICK GROWING TEMPORARY SEED MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE SEEDED AND MULCHED WITH A PERMANENT SEED MIXTURE AND MULCH. AREA MULCHED DURING THE NON-GERMINATING PERIOD OF OCTOBER 15 TO APRIL 1 MUST BE LIMED, FERTILIZED, SEEDED AND MULCHED BY APRIL 20.
- THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, ET SEQ., AND 287.1, ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
- ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION, A PUMPED WATER FILTER BAG (SEE DETAIL) IS TO BE INSTALLED BEFORE EXCAVATION CAN PROCEED.
- UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED.
- BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE ENGINEER. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

**SEQUENCE OF CONSTRUCTION**

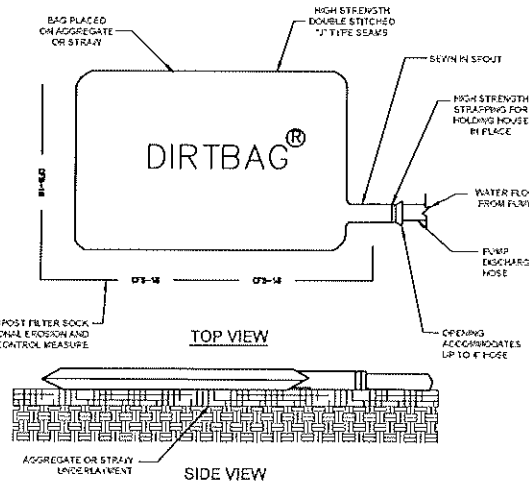
- CONDUCT A PRE-CONSTRUCTION MEETING WITH THE EAST GOSHEN MUNICIPAL AUTHORITY AND THE ENGINEER, AT LEAST 30 DAYS PRIOR TO COMMENCING CONSTRUCTION.
- NOTIFY THE EAST GOSHEN MUNICIPAL AUTHORITY AND THE ENGINEER AT LEAST TWO WEEKS PRIOR TO COMMENCING CONSTRUCTION.
- SITE LAYOUT SHALL BE CHECKED AGAINST THE PLAN, IDENTIFY PHYSICAL LAYOUT OF PROPERTY LINES, EASEMENT LINES, LIMIT OF DISTURBANCE, AND OTHER AREAS TO BE LEFT UNDISTURBED.
- CONTRACTOR SHALL SURVEY EXISTING ELEVATIONS OF EACH MANHOLE/VAULT AS PART OF THIS PROJECT AND REPORT THE RESULTS TO THE ENGINEER PRIOR TO ORDERING ANY NEW MANHOLES/VAULTS OR PROVIDING SHOP DRAWINGS.
- INSTALL EROSION AND SEDIMENT CONTROLS, INCLUDING INLET PROTECTION AND COMPOST FILTER SOCK, WITHIN THE LIMITS OF CONSTRUCTION AND AS INDICATED ON THE PLANS.
- INSTALL TRAFFIC CONTROLS, IF NEEDED.
- SET UP SANITARY SEWER BYPASS PUMPING EQUIPMENT.
- CONSTRUCT FORCE MAIN AND NEW GRAVITY SEWER. ONLY EXCAVATE AN EXTENT THAT CAN BE BACKFILLED THE SAME WORKDAY.
- CONNECT NEW FORCE MAIN AND GRAVITY SEWER TO EXISTING MANHOLE.
- TEST NEW FORCE MAIN AND GRAVITY SEWER MANHOLES.
- CONSTRUCT BYPASS CONNECTION.
- REMOVE AND REPLACE FLOW METER AND ASSOCIATED ELECTRIC CONTROLS.
- INSTALL NEW INFLUENT GRINDER AND ASSOCIATED ELECTRIC CONTROLS.
- REMOVE AND REPLACE EXISTING PUMPS AND ASSOCIATED ELECTRIC CONTROLS.
- REMOVE AND REPLACE EXISTING VALVE VAULT.
- CONSTRUCT ANY REMAINING ELECTRIC CONTROLS/SCADA.
- TOPSOIL, SEED, AND REGRADE LAWN TO RESTORE TO PRE-EXISTING CONTOUR ELEVATIONS.
- RESTORE ANY OTHER SITE FEATURES THAT MAY HAVE BEEN DAMAGED DURING THE WORK, INCLUDING CURBING AT THE ACCESS LOCATION.
- REMOVE TRAFFIC CONTROLS.
- REMOVE EROSION AND SEDIMENT CONTROLS.

**MAINTENANCE NOTES**

- THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS SHALL BE DOCUMENTED IN AN INSPECTION REPORT LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME WILL BE KEPT ON THE SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, RE-MULCHING AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

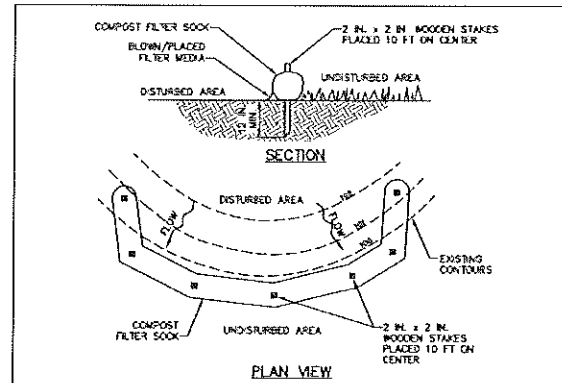
WHERE BMPs ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:

- THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
  - ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE REOCCURRENCE OF THE NON-COMPLIANCE.
  - THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
- SEEDED AREAS THAT HAVE WASHED AWAY SHALL BE FILLED AND GRADED, AS NECESSARY, AND THEN RESEDED. A STRAW COVER SHALL BE APPLIED TO RETAIN THE SEED ALONG WITH AN ANCHORING METHOD UNTIL IT HAS A CHANCE TO ROOT PROPERLY.
  - SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.



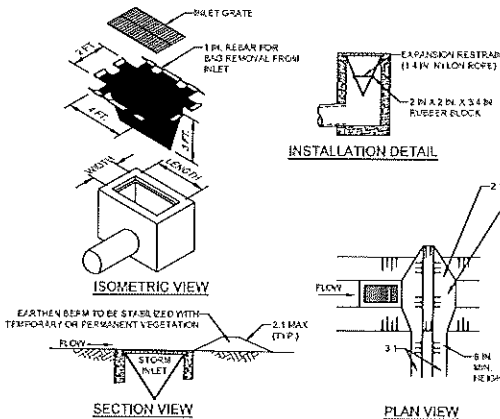
- FILTER BAG SHALL BE MADE FROM NON-HYPOXIGENIC GEOTEXTILE MATERIAL AND BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 100 MICRONS.
- INSTALL THE DIRT BAG OR EQUIVALENT WATER FILTER BAG ON A SLOPE NOT TO EXCEED 5%. IT SHOULD BE PLACED SO THE INCOMING WATER FLOWS INTO THE BAG AND WILL FLOW THROUGH THE DIRT BAG AND THEN FLOW OFF THE SITE WITHOUT CREATING MORE EROSION. THE MOUTH OF THE DIRT BAG SHOULD BE TIED OFF TIGHTLY, TO STOP THE WATER FROM FLOWING OUT OF THE DIRT BAG, WITHOUT GOING THROUGH THE WALLS OF THE BAG.
- A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
- THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR HALF THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS.
- BAGS SHALL BE LOCATED IN A WELL-VEGETATED AREA AND DISCHARGE ONTO A STABLE, EROSION-RESISTANT AREA.

**PUMPED WATER FILTER BAG**  
NOT TO SCALE



**NOTES:**  
SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.  
COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIERS SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.  
TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.  
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.  
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.  
BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTOGRAPHS OF SOCKS AFTER 1 YEAR. PHOTOGRAPHS OF SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.  
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

**STANDARD CONSTRUCTION DETAIL #4-1**  
**COMPOST FILTER SOCK**  
NOT TO SCALE



**NOTES:**  
MAXIMUM DRAINAGE AREA = 12 ACRES.  
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BEAMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.  
ROLLED EARTHEN BEAM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STABLED. ROAD SHOULDER BEAM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BEAM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR BEAM PERMANENTLY.  
AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS. A MINIMUM ELONG STRENGTH OF 200% AND A MINIMUM TRAPEZOIDAL TENSILE STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT FINER THAN 100 MICRONS.  
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR PASSAGES OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED AS A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEIGHBORHOODS SHALL BE NOTIFIED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.  
DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

**STANDARD CONSTRUCTION DETAIL #4-16**  
**FILTER BAG INLET PROTECTION - TYPE M INLET**  
NOT TO SCALE

**Pennoni**  
PENNONI ASSOCIATES INC.  
Chittilana Executive Campus  
121 Continental Drive, Suite 207  
Newark, DE 19713-4310  
T 302.655.4451 F 302.654.2895

ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK

MORSTEIN ROAD SANITARY SEWER EXTENSION  
EAST GOSHEN MUNICIPAL AUTHORITY  
1880 PAGLI PIRKE  
WEST CHESTER, PA 19380

NO.	DATE	BY	REVISIONS

PROJECT: EGMAU25006  
DATE: 2024-09-29  
DRAWING SCALE: AS NOTED  
DRAWN BY: ELA  
APPROVED BY: IUE  
**C8501**  
SHEET 12 OF 12



May 6, 2026

EGMAU26004P

**East Goshen Municipal Authority**

Attn: Mark Miller, Public Works Director  
1580 Paoli Pike  
West Chester, PA 19380

**RE: Proposal for RCSTP MCC-1 Replacement Design Phase Services**

Dear Mr. Miller:

Pennoni Associates Inc. (Pennoni) is pleased to submit the following proposal to the East Goshen Municipal Authority for the design phase services for the Ridley Creek Sewage Treatment Plant (RCSTP) Motor Control Center (MCC)-1 Replacement project.

**Background**

The existing 'MCC-1' at the RCSTP is an older Square-D model-4 7-section 480/277v 3-phase 4-Wire 400-amp Motor Control Center feeding 13 circuits. The MCC has 14 starters which are used to start and stop motors and other equipment. Currently, only four size 3 starters are being used. The rest of the starter compartments are not used or only the circuit breaker within the compartments is being used. The MCC also has an internal transformer which feeds an internal electrical panel. It has been recommended that the existing MCC should be replaced. The proposed replacement is to consist of the following:

1. The existing MCC will be removed, the wall space behind the MCC will be painted to match the existing walls, and new electrical equipment will be mounted on the newly painted wall. The circuits being fed from breakers can be refeed from breakers in a new 480/277v 3ph 4w panel instead of installing a new MCC, which will be less expensive.
2. The new 480/277v panel will have a 400A main circuit breaker fed from ATS-1 which presently feeds MCC-1. The panel will have:
  - o Five 3-pole breakers to refeed five unit heaters
  - o One 3-pole breaker to refeed the compressor in the sludge room
  - o Four 3-pole breakers to feed four new size-3 starters mounted on the wall, which will feed and control four blower motors
  - o One 3-pole breaker to feed a new 30kva 480-208Y/120v transformer, which will feed a new 208/120v 3ph 4w panel
  - o One 1-pole 277v breaker to feed interior lighting
  - o One 1-pole 277v breaker to feed exterior lighting
3. Prior to demolition, a temporary 480v panel and temporary 208v transformer and panel will need to be installed approximately 10 feet away from MCC-1. A temporary connection with flexible cable will be installed between the load terminals in ATS-1 and the temporary 480v panel. The 480v circuits and 120-/208v circuits presently fed from MCC-1 will be temporarily refeed from the temporary panels to allow MCC-1 to be de-energized and removed. The four new starters for the blower motors will be temporarily mounted next to the temporary 480v panel.

- Note: Depending on the time of year \*construction takes place, the five unit heaters circuits may not need to be temporarily re-fed if the temperature does not require the heaters to be operational.
- 4. After MCC-1 is removed, the existing concrete pad under the MCC will be demolished because pad is expected to be non-compliant with a 42" flat clear floor space in front of the new, smaller equipment. Additionally, the wall space behind the MCC will be painted to match the existing walls, a new 480v panel will be installed, a new 30kva 480-208/120v transformer will be installed, and a new 208/120v 3ph 4w panel will be installed along the wall.
- 5. After the new equipment is installed, the existing 480v feeder for MCC-1 will be connected to the new 480v panel which will feed the new 208/120v panel and feed the new starters. Once the new panels are energized, each of the 480v circuits will be relocated to the new 480v panel. Each starter for the blower motors and circuit will be relocated to the painted wall one at a time. Each 120/208v circuit will be relocated from the temporary panel to the new 208/120v panel.
- 6. Once all circuits are permanently re-fed from the new permanent panels, the temporary feed installed between the load terminals in ATS-1 and the temporary 480v panel will be removed along with the temporary 480v panel and the temporary 208/120v panel

## Scope of Services

Pennoni will provide the following scope of services:

### A. Design

1. Prepare design and a construction plan set based on the above scope with the following expected plan sheets:
  - Cover Sheet
  - Site Demolition Plan
  - Single Line Diagram Demolition Plan
  - Controls Demolition Plan
  - Proposed Site Plan
  - Proposed Single Line Diagram Plan
  - Proposed Panel Schedules
  - Proposed Controls Plan
  - Electrical Specifications and Details
2. Facilitate two on-site meetings with the Township PW Department, RCSTP operator, and electrician during the design process to review the deliverables. One meeting is expected to occur after the 60% submission, and the second meeting is expected to occur after the final design submission.
3. Provide the construction plans to a CoStars electrical contractor for them to provide a construction cost quotation. We will respond to contractor questions during their quotation process and will review the quotation. We assume no other bid or quotation assistance services are required.

### B. Arc Flash Study

1. Revise the existing Arc Flash Study for the RCSTP for the new equipment.
  - The study will include contributions of large mechanical motor loads (> 5hp) that are not fed through variable frequency drives. These include air compressors, roof top units, etc.

2. Perform the study in accordance with IEEE 1584-2018. IEEE 1584-2018 includes the requirements of NFPA 70E. Equipment to be evaluated for arc flash include Switchboards, Panelboards, Industrial Control Panels, MCCs, Transformers and Disconnect Switches.
3. Arc Flash Study with associated one-line drawings as modeled in our electrical study software, EasyPower 10.4 listing pertinent electrical system information, and select time-current characteristic curve sets illustrating the coordination between protective devices.
4. The report shall present the worst case of three scenarios: system fed from utility source(s), at 100% and 50% fault, and one (1) generator backup source.
5. Analyze the short circuit and arc flash calculations, and identify any equipment that is determined to be underrated or causes an abnormally high incident energy calculation.
6. Prepare a revised summary of the results of the power system studies in a final written report. The report will revise the following sections as required:
  - o General Summary – A synopsis of our overall findings, methods, procedures, and assumptions used in preparing the studies.
  - o Discussion – A discussion of each of the following power system analyses performed for this study:
    - Short Circuit Analysis Reports
    - Protective Device Coordination
    - Arc Flash Hazard Analysis Results
  - o Recommendations – Recommendations to reduce the existing incident energy levels and to improve overall future maintenance and operation of the electrical distribution system.
7. Deliver report in electronic pdf format.
8. Print new labels on 4"x6" durable, weather resistant, labels for client installation.

### **Assumptions**

1. Construction services can be provided under a separate proposal.
2. Existing electrical plans and information will be provided by East Goshen Township.
3. We assume a cost opinion will not be required.
4. The project will be contracted for construction through a CoStars electrical contractor; therefore, a bid document is not required.
5. No permits will be required. Pennoni will provide notification and submission of the plans to PADEP. Should additional permitting become necessary during the course of the project, we will submit a separate proposal for such supplemental work.
6. The Township's Code Department or third-party electrical reviewer will perform any electrical compliance review for issuance of a Township electrical permit. Pennoni will provide the plans to the Township or third-party reviewer. We assume any application fees will be paid by the Township.
7. The existing utility fault information will be used for the Arc Flash Study.
8. 208V panels fed from associated 125kVA or smaller transformers will not be included in the arc flash calculations, but generic labels will be provided.

- 9. Owner will install arc flash labels. If Owner requests assistance in applying labels, additional time will be billed in accordance with Pennoni's rate schedule.

**Deliverables**

Pennoni will provide two design plan submissions – a 60% design plan submission and Final design plan submission. Pennoni will also provide a revised Arc Flash Study and labels.

**Schedule**

Performance of services will commence upon receipt of Notice to Proceed. We anticipate the 60% design plans will be submitted approximately six weeks after the NTP. The final construction plans will be provided approximately four weeks after the 60% design plan review meeting. The Arc Flash Study will be provided following final construction plans.

**Fee**

We will provide the above scope of services for a total lump sum fee of **Thirty-Four Thousand Seven Hundred Dollars (\$34,700.00)**. The following table breaks down the scope of services fees:

TASK	DESCRIPTION	FEE
A	Design	\$26,700.00
B	Arc Flash Study	\$8,000.00
<b>TOTAL LUMP SUM</b>		<b>\$34,700.00</b>

We have proposed a Scope of Services that satisfies our current understanding of the project. Should additional services be requested that are not included or listed in the above Scope of Services, we will provide a supplemental proposal.

**Billing and Payment**

Invoices will be submitted monthly. Payment is due within 30 days of invoicing.

Thank you for the opportunity to provide our professional services to East Goshen Municipal Authority. If you wish to discuss any of the above, please do not hesitate to contact Mike Ellis at 302-351-5236 or [mellis@pennoni.com](mailto:mellis@pennoni.com).

If this proposal is acceptable, please execute by signing and returning a copy to this office to serve as our Notice to Proceed.

Sincerely,

**PENNONI ASSOCIATES INC.**



Michael J. Ellis, PE  
Associate Vice President

ACCEPTED BY:

\_\_\_\_\_  
Written Name:

East Goshen Municipal Authority

DATE:  
\_\_\_\_\_