

Project Name: Stormwater Utility Fund

Project Number: C-97166-2019

Daniel S. Deiseroth, P.E. – Municipal Engineer

Prepared By: Michael G. Albright, P.E. – Project Engineer

Matthew E. Bagaley, P.E. – Project Engineer

Work Completed to Date:

Road Reconstruction

- The concrete curbs under the Road Reconstruction Project have been completed.
- Storm Sewers were installed and/or will be completed in the next few weeks on:
 - Bridgewater Drive (Storm Sewer Extension and Drainage Improvements)
 - Duquesne Drive (Storm Sewer Extension and Drainage Improvements)
 - Elm Spring Road (Drainage Improvements and Roof Drain Collection Line to Mitigate Icing)
 - Hilf Street (Storm Sewer Extension and Drainage Improvements)
 - Lovington Drive (Drainage Improvements)
 - Moreland Drive (Drainage Improvements)
 - Pembroke Drive (Drainage Improvements)
 - Pinewood Drive (Drainage Improvements)

Municipal Separate Storm Sewer System (MS4 Permit) - Federal Permit Required for the discharge of

Municipal storm sewers

- Continued to adhere to the requirements of the MS4 program, including compliance with the 6 Minimum Control Measures (MCM)
- Began the design of the proposed stream restoration projects as part of the Total Maximum Daily Load (TMDL) and Pollution Reduction Plan (PRP) requirements

Storm Sewer CCTV

- Various Storm Sewers throughout the Municipality are in the process of being televised to determine the connectivity of the sewers and their condition. Necessary repairs are being completed as they are discovered.

Public Works Culvert Repairs

- The 96” diameter corrugated metal pipe culvert which runs under the public works yard was found to have significant issues following the large storm events in 2018 and priority repairs were completed at that time. In 2019 an additional 145 L.F. of full diameter gunite lining as well as 75 L.F. of invert gunite lining were performed due to continuing degradation of the culvert following additional storm events.

Storm Sewer Point Repairs

- Continued investigation of system improvements as a result of the 2018 flooding events
- Vallevista Avenue storm sewer connection

Remaining Tasks for 2019:

Golf Course Swale Project – Construction of the swale to be completed in October 2019.

Moreland Drive Storm Sewer Project – Project to go out to bid and commence in the winter of 2019, with an early 2020 completion date.

2020 Proposed Capital Projects:

Ella Street / Chalmers Place / Parkview Drive Storm Sewer Installation Project – Stormwater from the properties along Ella Street and Chalmers Place travels through the rear yards of the residents. This stormwater is continually causing flooding problems for the residents along Ella Street and Chalmers Place during large storm events. In order to correct the flooding issue, storm sewers are needed in the rear yards of the properties to capture and convey stormwater in the system, as opposed to running on the surface uncontrolled. The conceptual design is complete and will need to be refined to minimize the impact to existing features in the residents' rear yards. In addition, easements will be required from the residents to allow for the project to proceed.

Woodhaven / Forest Glen Storm Sewer Installation Project – Phase II of the Forest Glen/Woodhaven project includes extending the storm sewer system up Woodhaven Drive to capture additional flows from the upstream areas. This project was bid as an Alternate in Phase I of the project, but not awarded.

Banksville Road Storm and Sanitary Sewer Re-Route – There is a sanitary sewer that currently runs under the Fire & Patio Place Store on Banksville Road. During some due diligence work to design a re-route, it was discovered that a 60" storm sewer runs under multiple buildings along Banksville Road. We are currently completing due diligence work to determine the future capital costs of re-routing the storm and sanitary sewers to be completed at a future date to be determined.

Public Works Yard Culvert Repairs – During the due diligence investigation for the new Public Works Facility, the storm sewer which runs through the Public Works Yard was evaluated. Continual evaluations were performed following the frequent large storm events encountered due to the damage caused within the culvert. The pipe is a 96" Corrugated Metal Pipe that varies in depth from 4' to 30'. Several priority repairs were completed; however, it is recommended that 460 L.F. of invert lining be complete as well as 55 L.F. of full diameter lining. Additional repairs are recommended following this work to repair non-priority issues.

Pollution Reduction Plan (PRP) Projects – Continue with the design of the proposed stream restoration projects as part of the Total Maximum Daily Load (TMDL) and Pollution Reduction Plan (PRP) requirements of the MS4 Permit.

Financial Summary

The following is the approximate Financial Summary for the Projects Complete:

Project Name	Cost
Reconstruction	
2012 Curbs	\$ 377,179.50
2012 Storm Extension	\$ 96,140.00
2013 Curbs	\$ 432,072.50
2013 Storm Extension	\$ 232,196.36
2014 Curbs	\$ 420,749.00
2014 Storm Extension	\$ 190,806.00
2015 Curbs	\$ 546,314.05
2015 Storm Extension	\$ 117,019.24
2016 Curbs	\$ 487,823.60
2016 Storm Extension	\$ 238,541.80
2017 Curbs	\$ 515,716.54
2017 Storm Extension	\$ 180,948.96
2018 Curbs	\$ 540,255.00
2018 Storm Extension	\$ 140,869.60
2019 Curbs - Not Finalized Yet	\$ 520,856.30
2019 Storm Extension - Not Finalized Yet	\$ 222,473.50
Sub-Total Reconstruction	\$ 5,259,961.95

2012 Storm Sewer Projects	
Serpentine Storm Sewer	\$ 61,520.08
Lindendale Storm Sewer	\$ 35,640.01
Adeline Storm Sewer	\$ 32,854.10
Sunrise Storm Sewer	\$ 8,060.00
Elatan Storm Sewer	\$ 57,414.06
Abbeyville Storm Sewer	\$ 9,031.43
Klett Storm Sewer	\$ 2,456.19
Broadmoor Storm Sewer	\$ 3,141.85
Crystal Drive Storm Sewer	\$ 2,418.57
Cochran & Cedar Inlets	\$ 12,394.90
Oak Park Place Inlets	\$ 5,705.10
Scrubgrass Road Stream Rehabilitation	\$ 162,065.21
Storm Sewer CCTV	\$ 2,464.02
Sub-Total 2012 Storm Projects	\$ 395,165.52

2013 Storm Sewer Projects	
*Bid in 2013, construction in 2014	
Jefferson Drive Storm Sewer - Emergency	\$ 33,217.83
Kurt Drive Storm Sewer	\$ 10,841.46
Elatan Drive Storm Sewer	\$ 20,976.33
Castle Shannon Storm Sewer	\$ 38,917.87
Morrison Inlet Installation	\$ 6,900.00
Ice Spots (Piper, Cochran, Park Entrance, Sandrae, Lindendale)	\$ 127,279.02
Academy Avenue Storm Sewer	\$ 87,359.59
Moreland Hillside Failure	\$ 9,435.76
Sleepy Hollow	\$ 179,714.41
Washington-Navahoe Storm Sewer	\$ 56,971.80
PA DOT Drainage Improvements	\$ 30,000.00
Sub-Total 2013 Storm Projects	\$ 601,614.07

2014/2015 Storm Sewer Projects	
*Projects that were designed in 2015, constructed in 2016.	
Scrubgrass Retaining Wall Rehabilitation	\$ 12,405.00
Mapleton Sanitary and Storm Improvements	\$ 536,120.00
Lindendale Drive Retaining Wall *	\$ 135,585.50
Storm Sewer CCTV	\$ 30,000.00
Arden Drive Storm Sewer Extension	\$ 34,000.00
Parkside Drive Inlet Replacement	\$ 12,560.00
Roycroft Swale Maintenance	\$ 1,350.00
Washington Road Icing Issue	\$ 10,120.00
Orchard Drive Pipe Burst	\$ 69,500.00
Beverly Road Storm Sewer	\$ 79,390.00
Sub-Total 2014/2015 Storm Projects	\$ 921,030.50

2016 Storm Sewer Projects	
Longuevue/Woodhaven Storm Sewer	\$ 758,787.31
Roycroft/Mt. Lebanon Boulevard Storm Sewer Installation	\$ 110,933.47
Orchard Drive Storm Sewer Re-route Project	\$ 161,778.00
Public Works Culvert Repair	\$ 59,617.65
Sub-Total 2016 Storm Projects	\$ 1,091,116.43

2017 Storm Sewer Projects	
Elm Spring/Scrubgrass Road Emergency Repair	\$ 26,988.80
Jefferson Drive Emergency Repair	\$ 5,386.39
Sub-Total 2017 Storm Projects	\$ 32,375.19

2018 Storm Sewer Projects	
Crystal/Milbeth Storm Sewer	\$ 98,951.00
DPW Yard Culvert Emergency Repairs	\$ 169,668.90
Elm Spring/Scrubgrass Culvert Repair	\$ 37,966.75
Craigview Drive Storm Sewer Extension	\$ 32,058.60
Vee Lynn Drive Storm Sewer Extension	\$ 15,994.55
Storm Sewer Point Repairs	\$ 41,248.46
Sub-Total 2018 Storm Projects	\$ 395,888.26

2019 Storm Sewer Projects	
Golf Course Swale	\$ 123,005.00
DPW Yard Culvert Emergency Repairs	\$ 197,223.35
Moreland Drive Storm Sewer Repair	\$ 175,000.00
Vallevista Avenue Storm Sewer Connection	\$ 15,000.00
Storm Sewer Point Repairs	\$ 16,323.05
Sub-Total 2019 Storm Projects	\$ 526,551.40

Public Works Projects
Clean and Maintain Inlets & Outfalls
Inlet Repairs
Repair damaged Storm Sewer
Repair Vane Grates
Installation of underdrain around the swimming pool