

PETERS TOWNSHIP – ENGINEERING DEPARTMENT



Rolling Hills Park under construction - May 2021

ANNUAL REPORT 2021

2021 ENGINEERING DEPARTMENT STAFF

Mark A. Zemaitis, P.E. - Director of Engineering

Jason R. DiLoreto, E.I.T. - Assistant Township Engineer

Vinh Q. Ly - Geographic Information Systems (GIS) Coordinator



PREFACE

The Engineering Department is primarily responsible to design and manage certain capital projects involving Township facilities & infrastructure, manage engineering consultants, provide support to other departments, and represent the Township on various regulatory issues. In 2021, the first phase of development of Rolling Hills Park was initiated, following the extensive transportation network and infrastructure improvements that were completed to support the Park & High School in 2020. In addition to this major capital project involving the construction of new facilities, 2021 marked another year filled with replacement and maintenance of existing public infrastructure and assets for which Peters Township is responsible. Private Land Development within the Township continues to absolutely thrive, with several major housing plans under construction and several others being proposed. Based on the magnitude and scope of approved Capital Projects for 2022, the number and size of private development projects under construction and in the pipeline, and the ever-increasing demand for customer service, this coming year will be a significant challenge.

TABLE OF CONTENTS

Design, Permitting, & Construction

Pages 4 - 11

New facilities / assets

- Rolling Hills Transportation Improvements
- Rolling Hills Park
- Rolling Hills Aquatics Center
- Fire Station #3
- Briarcliff Open Space – Floodplain Restoration project
- Pelipetz Parking Lot

Expansions / Upgrades of existing facilities/assets

- Parks: Venetia Park & Peterswood Park ADA Upgrades, Venetia Park baseball fields

Replacements / Maintenance of existing facilities/assets

- Road Surface Maintenance:
 - Street Resurfacing
 - Street Rejuvenation
 - Street Crack Sealing
- Utility Company Projects:
 - Gas Mains (Columbia)
 - Water Mains (PA American)
- Storm sewers
 - Open Cut Excavation - Lakeview Drive, Old Oak Rd, Fawn Valley Dr, Lintel Drive
 - CIPP Lining – Center Church Road, Gateshead Drive
 - SHACOG CCTV contract
- Detention Ponds – Colony Manor, Old Trail 14, Peterswood Park
- Traffic Signals – asset management plan

Regulatory Compliance

Page 12

- Peters Lake dam
 - Annual inspection
 - Spillway Capacity augmentation
- MS4 Permit

Major Engineering Dept. Initiatives - 2021

Page 13

- Aerial Mapping project

Departmental support

Page 14

- Street Opening Permits – 95 Permits issued in 2021
- Database updates / Asset Management – outfalls, SWM facilities, pavement management system, traffic signs
- Permits & reviews
- Private Land Developments
- Customer service – Hurricane Irma

Licensing & Continuing Education

Page 15

Outside Consulting

Page 15

Design, Permitting, & Construction (new facilities/assets)

Rolling Hills Transportation Improvements:

In early 2021, the abandonment of 'East McMurray Court' by PennDOT became official and the Township took over ownership of this new road. With the realignment of a quarter mile stretch of East McMurray, the construction of a new traffic signal, and the transfer of ownership of East McMurray Court, the transportation improvements to support the new high school and park were now complete.



Removal of 'old' East McMurray Road



Utility and pavilion construction in Great Lawn area - November 2021

Rolling Hills Park:

A. Liberoni, Inc. began site preparation and surveying layout in winter 2021 and progressed through bulk earthwork in the spring. Site work continued throughout 2021. Their subcontractor, Raffle Construction, erected the pavilions, restroom, and maintenance building throughout the spring, summer, and fall and were 'under roof' prior to the onset of winter weather. By the close of 2021, the Loop Road and adjacent parking lots, Arrowhead Trail Connector Path, the Great Lawn area had been installed and the park was beginning to take shape. Phase 1 of the park is expected to be substantially complete by Summer 2022.



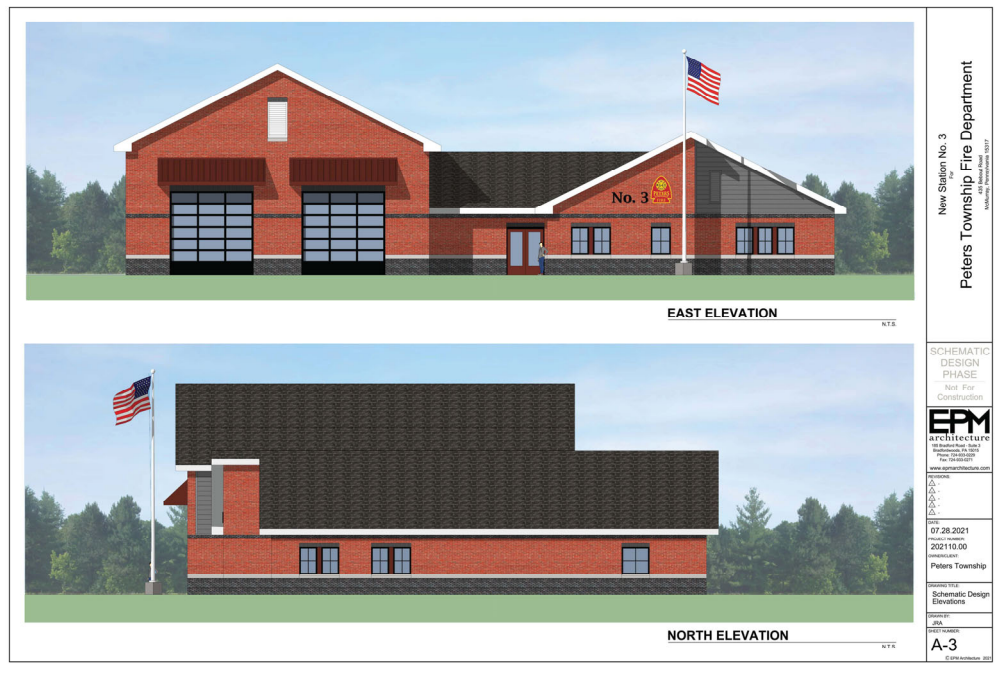
Aquatics Center building pad - November 2021

Rolling Hills Aquatics Center:

Design and permitting of the future Aquatics Center progressed in 2021. In order to accommodate the future building pad that would be required for the pool, buildings, and parking, the decision was made to have the current Park contractor, A. Liberoni, Inc., perform the bulk earthwork for the Aquatics Center. The work was performed under a Change Order to the existing Park contract.

New Fire Station #3:

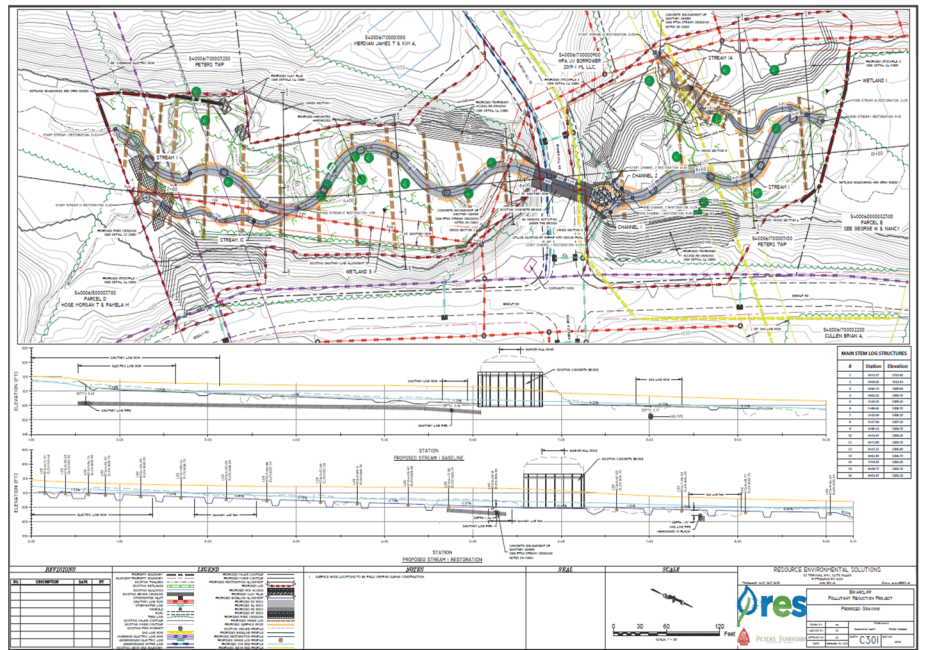
Due to the growth of the Township, it was determined several years ago a new fire station in the eastern portion of the Township would be needed to provide adequate service. A suitable piece of property on which to construct the station was acquired by the Township in 2020. EPM Architecture was engaged and the design and permitting of a new station began in 2021. The design process was nearly complete by year's end and the project is scheduled for bid in early 2022, with construction to begin in the spring.



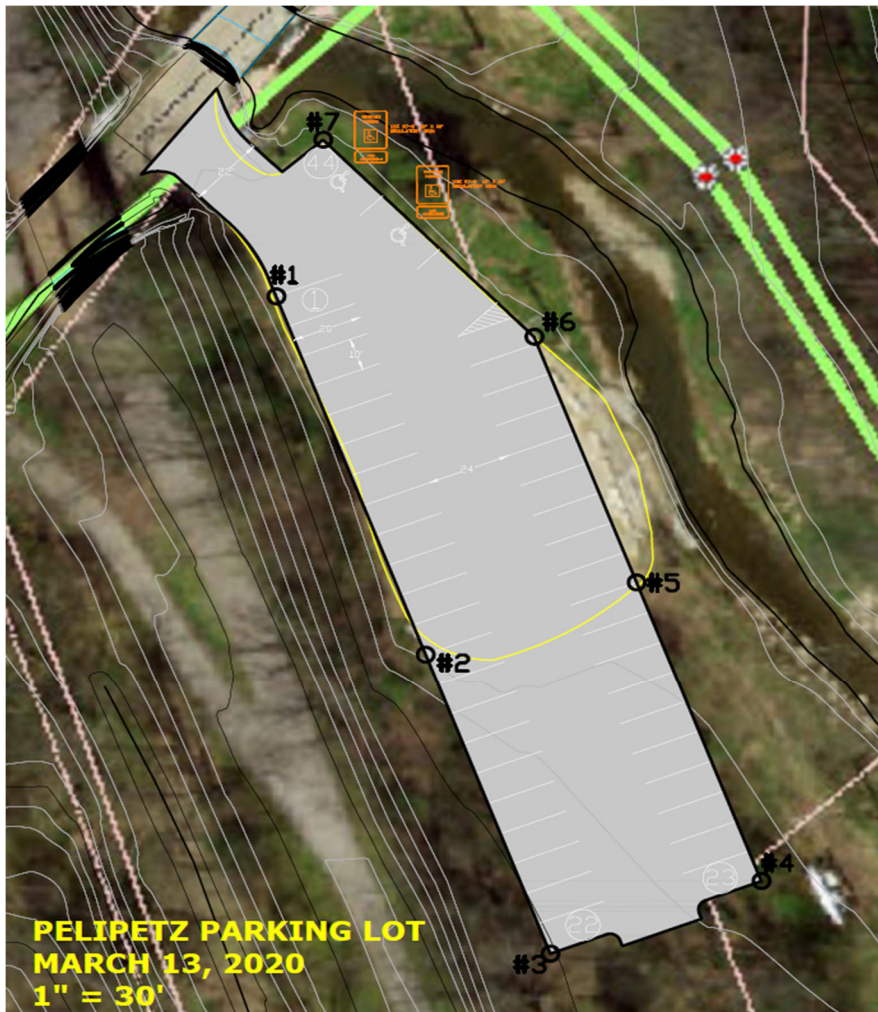
Building elevation rendering - October 2021

Briarcliff Open Space – Floodplain Restoration Project:

As part of the Township's regulatory obligations in its MS4 Permit, projects to remove sediment and phosphorus from the Brush Run watershed must be completed over the next five permit cycles (5 year cycles). The first of these projects is planned in the Briarcliff Open Space parcel owned by the Township. The project consultant, Resource Environmental Solutions (RES), progressed with design and permitting through the PaDEP, Washington County Conservation District, and US Army Corps of Engineers throughout 2020 and 2021. In 2022, the course of action is to secure the necessary permits and apply for grant funding to assist with the costs of this significant project.



Excerpt from Briarcliff Open Space Floodplain Restoration Plans



Pelipetz Parking Lot: In 2020, it was realized that the popular location for Arrowhead Trail parking at St. Petersburg Center could be in jeopardy. As such, an alternate location for potential parking was identified and a layout performed on paper and in the field. Clearing for the lot was completed in 2020 and the construction of the lot was completed in 2021 in-house by our Public Works Department. Engineering also secured a PaDEP permit to stabilize the bank of Brush Run Creek adjacent to the lot & PWD completed this bank stabilization as part of project. The PWD did a fine job and the new lot is a true community asset.

Design & Construction (expansions/upgrades)

Park ADA Upgrades: The Township received a DCED grant to make ADA improvements to Peterswood Park in 2020. The Peterswood project was designed by Mackin Engineering and went under construction in December with Murin & Murn as the contractor. The project was completed in the spring of 2021 and included an accessible playground. The Township also received a CBDG Grant for ADA upgrades at Venetia Park. The Redevelopment Authority of the County of Washington (RACW) contracted with Excaliber Construction and started the project in summer 2021.

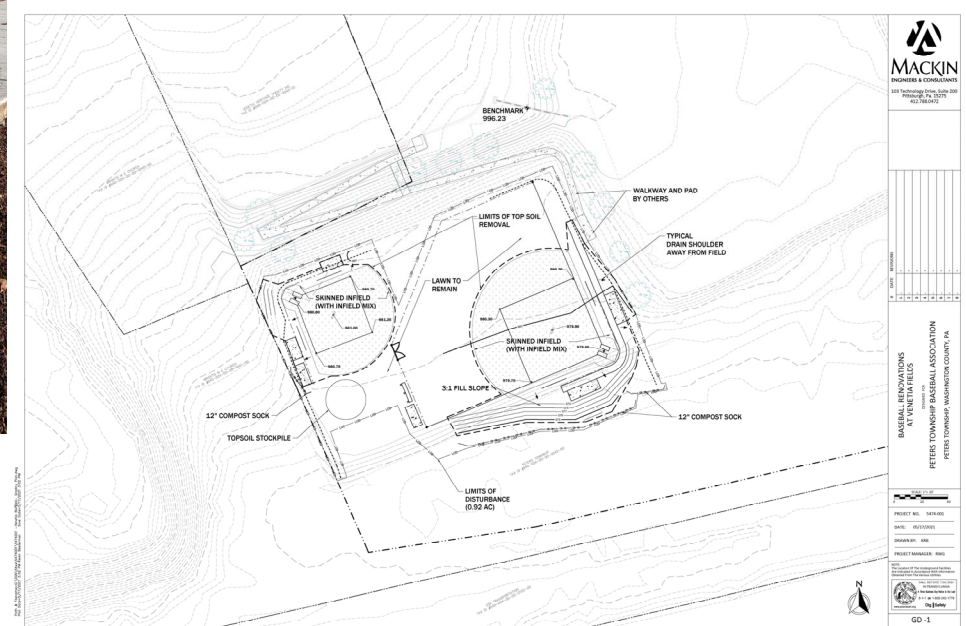


Peterswood Park new playground



Venetia Park ADA sidewalk

Venetia Park baseball field design



Venetia Baseball Fields: The Peters Township Baseball Association contracted with Mackin Engineering to design and manage construction for the conversion of an existing multipurpose field into baseball diamond fields. Because the Township owns the property, the actual construction contract is between the Township and the contractor, Slusarczyk Excavating. The project is expected to be complete in spring 2022.

Design & Construction (replacements)

Street Resurfacing Program: All or portions of fifteen (15) different streets were paved by A. Liberoni, Inc. in 2021. Also, our PWD completed McClelland Road under the in-house paving program, bring the total contractual plus in-house paving to roughly 5.5 miles of roadway. As part of the resurfacing effort, work to rehabilitate deteriorating catch basins and CMP cross-pipes was performed where necessary. Project design and management was done in-house by the Assistant Township Engineer, who is NECEPT certified in asphalt inspection. Liberoni began in July and was substantially complete in November. One road, Galley Road, remains to be resurfaced in 2022 under the 2021 contract with Liberoni.

Street Rejuvenation Program: The rejuvenator program was continued in 2021 at a cost of \$ 114,000. The work performed by Pavement Technology Inc. included the application of Reclamite on all or portions of 28 roadways paved in 2018 and 2020 (1-year and 3-year cycle), totaling 9.2 miles of roadway and 126,000 square yards of pavement.

Crack Sealing Program: The project scope was comprised of streets paved in 2016 & 2017 (4-5 years old). Overall, 54,700 linear feet of crack sealing was performed on 33 roadways covering 8.35 miles of pavement. This works out to approximately 6,500 linear feet of crack sealing per mile of roadway. A crack sealing project has been completed in each of the past five years with the average working out to approximately 7,700 linear feet of crack sealing per mile of roadway, which will be used as a guide to estimate scopes of work on future crack sealing projects.



Raised intersection installation - Bower Hill Road

Utility Company projects 2021:

Although funded by the utilities companies themselves, these infrastructure replacements can consume a significant portion of Township staff time on construction coordination, communications to the public, and spot inspection of the street openings and other project components within the public rights-of-way. In 2020, a part-time right-of-way inspector was hired to keep up with the demands of the many projects that occurred that year. For 2021, our Public Works Department provided spot inspection and project liaison duties. In all cases, either the contracted inspector's wages or reimbursement for staff time are paid by the utility companies through Street Opening Permit fees.

Gas main replacements 2021: Columbia Gas had several major replacement projects underway in 2021. The ones that required Township involvement were on Thompsonville Road (both upper and lower end) and in the Old Washington/Devonshire/Joyce/Ammons Drive area. Another active year by Columbia Gas is anticipated in 2022. Also, a major gas transmission main was replaced on private property abutting Saratoga Drive by TC Energy late in 2021.

Water main replacements 2021: Pennsylvania American Water Company had no major main replacement projects undertaken in Peters in 2021, following an extremely active year in 2020. PAWC has informed the township that they will undertake projects on Bell Drive, Lightholder Drive, and Sheffield Lane in 2022, with more potentially coming if funding allows.

Storm sewer projects:

Open Cut Excavation: As part of the contract award to Morgan Excavating in May, three (3) deteriorated corrugated metal pipe systems were replaced on Fawn Valley Drive, Old Oak Road, and Lakeview Drive. Additionally, Slusarczyk Excavating completed the realignment of a section of sewer on Lintel Drive to alleviate a chronic backup situation.



Lintel Drive storm sewer - Nov 2021



Old Oak storm sewer - July 2021



Gateshead culvert - upstream entrance

Cured-in-Place storm sewer lining:

In summer 2021, the Engineering Department prepared bidding documents for the cured-in-place lining of deteriorated pipe systems on Center Church Road and Gateshead Drive. In December, Insight Pipe Contracting completed the lining of two separate pipe systems on Center Church Road and one large diameter culvert off of Gateshead Drive. This method of lining drastically reduced the project footprint and amount of disturbance.

SHACOG annual CCTV contract: On an annual basis, SHACOG bids out a pipe cleaning and televising contract for its member municipalities to receive pricing in bulk for these services. In 2021, Peters participated in this contract and had many areas of existing corrugated metal storm sewer televised to assess the condition. The televising was performed in August and, as a result, future storm sewer replacement projects were identified.

Detention Pond Rehabilitations 2021:

Typically, we strive to rehabilitate several older Township-owned stormwater detention ponds annually. These facilities tend to accumulate sediment over time and become choked in with vegetation if not maintained. In 2021, the Engineering Department prepared bidding documents for the rehabilitation of six (6) ponds: Colony Manor (2), Peterswood Park (3), and Old Trail 14. Slusarczyk Excavating completed the work in October.



Old Trail 14 SWM Pond - post rehab

Traffic Signal Asset Management plan:

The Township owns and operates fifteen traffic signals, varying in age from one (1) to forty (40+) years old. Our Traffic Engineer, Traffic Planning & Design, Inc., was engaged to complete an inventory of existing signal equipment and components as well as develop a capital replacement plan for our aging signals. TPD is nearing completion of this task and their Plan will be used as a basis for future budgeting decisions with regards to this important asset.

Peters Township Traffic Signal Equipment Condition		Date: _____									
Estimated Age of Equipment at Intersection	Operational Adequacy	Controller Cabinet	Poles (year)	Pole Condition (higher number=worse)	Wiring	Signal Heads	Detection	Preemption	Pushbuttons	Ped Heads	Signage
Life Expectancy	3	20	30		30	20	20	20	20	20	10
3482 Washington Road/East McMurray Road	2019	2019	1986	3	2019	1986	1986	1986	1986	1986	1986
62-T5013 Washington Road/Gallery Drive	2011	2008	1988	8	1988	1988	1988	2008	1989	1989	2011
62-T5016 Washington Road/Waterdam Plaza Drive, Waterdam Road	2011	2020	1989	7	2020	1989	1989	1989	1989	1989	1989
62-T5015 Washington Road/Mocassin Drive	2011	1989	1989	6	1989	1989	1989	2009	1989	1989	2011
62-T5014 Washington Road/Circle Drive	2013	1989	1989	8	1989	1989	2013	2009	2013	2013	2011
62-T5024 Washington Road/Crosswinds Drive	2011	2005	1992	10	1992	2005	2005	2005	2005	2005	2005
62-T5027 Washington Road/Crossgates Drive, Old Oak Road	2014	2011	1995	6	2011	1995	1995	2008	1995	1995	1995
62-T5030 East McMurray Road/Valley Brook Road	2018	2018	1997	2	2018	2014	1997	1997	1997	1997	1997
62-T5001 Washington Road/Gateshead Drive, Hidden Valley Drive	2011	2003	2003	4	2003	2003	2003	2009	2003	2011	2003
62-T5081 Washington Road, Washington Road/ McDowell Lane	2009	2009	2009	0	2009	2009	2009	2009	2009		2009
62-T5018 McMurray Road/Bebout Road	2018	2018	2009	3	2009	2009	2018	2018	2018	2018	2009
62-T5089 Washington Road/Valley Brook Ramp B	2016	2012	2012	0	2012	2012	2012	2012	2012	2012	2014
62-T5069 East McMurray Road/Center Church Road	2012	2012	2012	0	2012	2012	2012	2012	2012	2012	2013
62-T5081 Washington Road, Washington Road/Donaldson Crossroads, Saint Clair Drive	2009	2009	2013	0	2009	2009	2009	2009	2009	2009	2009
62-T5090 Valley Brook Road/Old Washington Road, Ramp B	2014	2014	2014	0	2014	2014	2014	2014	2014	2014	2014
East McMurray at Rolling Hills Drive	2020	2020	2020	0	2020	2020	2020	2020	2020	2020	2020

Criteria	
Operational Adequacy	
Revision Since 2018	2021
Revision between 2017 and 2012	2016
Latest Revision longer than 10 years ago	2010
Poles	
New poles since 2012 (10 years)	2016
New poles since 2002 (20 years)	2006
Poles older than 20 years	1996
Wiring	
Replaced since 2007	2020
Replaced between 2006 and 1996	2005
Replaced prior to 1996	1995
Detection	
Revision Since 2017	2020
Revision between 2016 and 2006	2015
Latest Revision prior to 2006	2005
Pushbuttons	
Revision Since 2017	2020
Revision between 2016 and 2006	2016
Latest Revision prior to 2006	2005

Controller Cabinet	
Revision Since 2017	2020
Revision between 2015 and 2011	2015
Latest Revision prior to 2011	2010
Signal Heads	
Revision Since 2017	2020
Revision between 2015 and 2011	2015
Latest Revision prior to 2006	2005
Preemption	
Revision Since 2017	2020
Revision between 2015 and 2011	2015
Latest Revision prior to 2006	2005
Pedestrians Heads	
Revision Since 2017	2020
Revision between 2015 and 2011	2015
Latest Revision prior to 2006	2005
Signage	
Revision Since 2017	2020
Revision between 2015 and 2013	2015
Latest Revision prior to 2012	2012

DRAFT

Regulatory Compliance



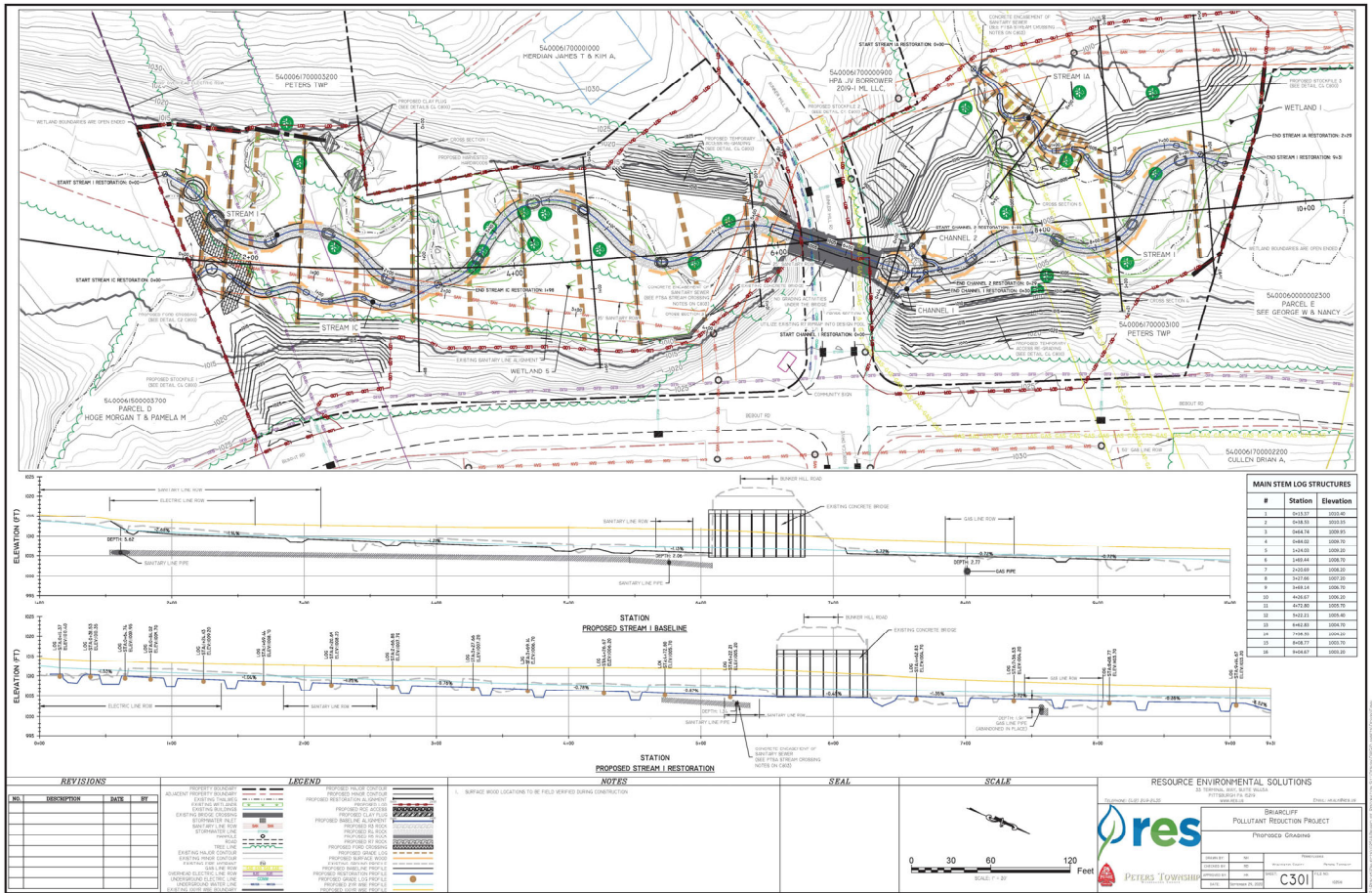
Peters Lake Spillway - Oct 2021

Peters Lake Dam inspection: Due to its size and hazard potential classification, the Peters Lake dam requires annual inspection by the PaDEP and was inspected by the Engineering Department in October 2021. A report filed with the DEP stated that no significant deficiencies were found.

Peters Lake Spillway Capacity Augmentation project: Work to satisfy the directive from the PaDEP to increase the spillway capacity to handle the Probable Maximum Precipitation event (PMP) was initiated in 2021. An RFP for Engineering Services was advertised and Rizzo International was engaged to finalize certain design criteria and develop alternatives for spillway augmentation. The takeaway is that whatever alternative is chosen, the project will be enormously expensive and drastically change the character of the lake.

MS4 Permit, TMDL, PRP Plans: The required Annual Report summarizing MS4 activities for the previous year was transmitted to PaDEP in September 2021. Routine activities to support the six 'minimum control measures' were completed throughout 2021, including screening of outfalls, inspection of stormwater detention ponds and underground tanks, street sweeping, employee training, ...etc.

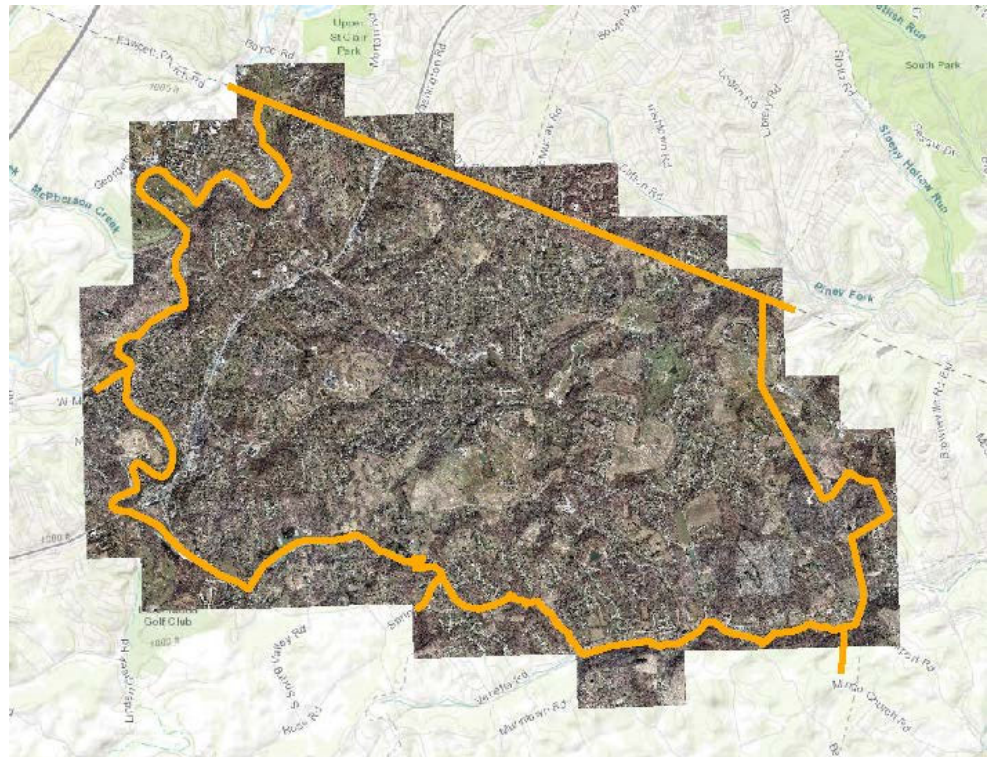
Briarcliff Open Space – Floodplain Restoration Project: As part of the Township's regulatory obligations in its MS4 Permit, projects to remove sediment and phosphorus from the Brush Run watershed must be completed over the next five permit cycles (5 year cycles). The first of these projects is planned in the Briarcliff Open Space parcel owned by the Township. Throughout 2021, the Township's consultant, Resource Environmental Solutions (RES), progressed with design and permitting through the PaDEP, Washington County Conservation District, and US Army Corps of Engineers. In 2022, the course of action is to secure the necessary permits and apply for grant funding to potentially assist with the costs of this significant project.



Excerpt from Briarcliff Floodplain Restoration Plans

Major Initiatives - 2021

Aerial mapping update: Kucera International completed the previously approved update to our aerial mapping and GIS layers. Based on past practice, we should anticipate completing this task every ten (10) years or so.



Departmental Support

Street Opening Permits: A substantial amount of utility replacements occurred in 2021. Ninety five (95) permits were issued in 2021 with total fees collected of approximately \$ 10,000. Columbia Gas had fifty (50) permits issued, Pennsylvania American Water had forty (40), and Peoples Gas plus Private Contractors totaled five (5).

Street Name	From Limit	To Limit	Jurisdiction	Status	Class	Mileage	Last Paved	Method	Previous	Length (ft)	Segment #	Survey #	Width	Sh Width	Sh Depth	Hood	Inlets w/ Hood	PCI	CMP?	Review?	Review?	Crack Seal Yr	Crack Seal Yr	Core?	Year?
888 Village Green Dr 2	Evergreen Dr	Terminus	Public	Full Status	Local	0.110	2004	New		581	826	200000	20	6	2	0	4	93							
890 W Edgewood Drive 1	Brookside Rd	Brookside Cir	Public	Full Status	Local	0.099	2014	MHP 3.5"	1992	313	541	100607	17.5	6	1.5	2	0	100		2015	2017	2018	99%	x	
900 W Edgewood Drive 2	Brookside Cir	Rahway Rd	Public	Full Status	Local	0.163	2014	MHP 3.5"	1992	859	457	100606	18.5	6	1.5	3	0	100		2015	2017	2018	99%	x	
901 W Edgewood Drive 3	Rahway Rd	HSR 204	Public	Full Status	Local	0.045	2014	MHP 3.5"	1992	237	456	100602	18.5	6	1.5	1	0	98		2015	2017	2018	99%	x	
902 W Edgewood Drive 4	HSR 204	Georgetown Ct	Public	Full Status	Local	0.050	2014	Sc&D 1.5"	1992	160	1211	100603	20.5	6	1.5	0	2	98		2015	2017	2018	99%	x	
903 W Edgewood Drive 5	Georgetown Ct	Terminus	Public	Full Status	Local	0.070	2014	Sc&D 1.5"	1992	371	455	100604	20	6	1.5	0	3	98		2015	2017	2018	99%	x	
904 Wallace Drive	E McMurray Rd	Terminus	Private	Private	Private	0.100	N/A			528	1106	200000													
905 Walnut Drive 1	Rouser Hill Rd	Walnut Dr	Public	Full Status	Local	0.174	2003	New		918	1038	101629	20	6	2	0	4	74							
906 Walnut Drive 2	Walnut Dr	Terminus	Public	Full Status	Local	0.179	2003	New		944	880	101630	20	6	2	0	4	78							
907 Walnut Drive 3	HSR 216	Chester Ct	Public	Full Status	Local	0.175	2003	New		911	1232	101631	20	6	2	0	4	74							
908 Walnut Drive 4	Chester Ct	HSR 202	Public	Full Status	Local	0.051	2004	New		289	885	101632	20	6	2	0	0	76							
909 Walnut Drive 5	HSR 302	Berry Ln	Public	Full Status	Local	0.043	2005	New		227	1233	101633	20	6	2	0	2	90							
910 Walnut Drive 6	Berry Ln	Cypress Ct	Public	Full Status	Local	0.132	2005	New		686	1063	101635	20	6	2	0	4	82							
911 Walnut Drive 7	Cypress Ct	HSR 315	Public	Full Status	Local	0.048	2005	New		255	878	101637	20	6	2	0	0	74							
912 Walnut Drive 8	HSR 325	Walnut Dr	Public	Full Status	Local	0.093	2005	New		499	1224	101639	20	6	2	0	4	91							
913 Wellington Cir	Bremen Ln	Terminus	Public	Full Status	Local	0.048	2011	Sc&D 1.5"	1983	261	530	101318	20	6	1.5	0	2	97							
914 Waterford Plaza Dr	Roue 19	Terminus	Private	Private	Private	0.120	N/A			633	729	200000													
915 Waterfall Way	Thompsonville Rd	Nancy Ct	Public	Full Status	Local	0.084	2010	M 1.5" P 2"	1991 New	443	436	100430	20	6	2	0	2	90							
916 Waterside Dr	McDonald Ln	Terminus	Private	Private	Private	0.303	N/A			1589	709	200000													
917 Wellbourn Dr 1	Terminus	Merrifield Dr	Public	Full Status	Local	0.082	2016	New		431	1237		20	6	2	2	2	98							
918 Wellbourn Dr 2	Merrifield Dr	Whispering Herge	Public	Full Status	Local	0.067	2016	New		354	1238		20	6	5	2	0	100		2017	2019				
919 Wellington Circle 1	Braeburn Drive	Crimson Lane	Public	Full Status	Local	0.067	2015	New		460	1244	101140	20	6	2	2	0	83							
920 Wellington Circle 2	Crimson Lane	Braeburn Drive	Public	Full Status	Local	0.341	Wearing Not Yet In	New		1800	1147		20	6	2	10	2	100							
921 Whispering Heights Ln 1	Terminus	Wellbourn Dr	Public	Full Status	Local	0.075	2016	New		387	1239		20	6	2	0	1	100		2017	2019				
922 Whispering Heights Ln 2	Wellbourn Dr	Terminus	Public	Full Status	Local	0.070	2016	New		370	1240		20	6	2	0	2	100		2017	2019				
923 Wld Brar Dr	Hardwood Dr	Terminus	Public	Full Status	Local	0.178	2004	New		940	1078	101819	20	6	2	2	4	63							
924 Wellhaven Dr 1	Center Church Rd	Longvue Dr	Public	Full Status	Local	0.150	2004	MHP	1989	793	739	101226	17.5	6	2	2	0	55		2007	2011				
925 Wellhaven Dr 2	Longvue Dr	HSR 105	Public	Full Status	Local	0.020	2004	MHP	1989	107	512	101225	17.5	6	3	0	0	77		2007	2011				
926 Wellhaven Dr 3	HSR 105	Gateshead Dr	Public	Full Status	Local	0.032	N/A			147	1225	101701	20	5	2.75	2	3	61							
927 Wll Scarlett Rd 1	Terminus (W)	Terminus (W)	Public	Full Status	Local	0.135	2011	MHP 3.5"	1995	715	339	100925	18	5	2	1	2	94							
928 Wll Scarlett Rd 2	King Richard Dr	Terminus (E)	Public	Full Status	Local	0.303	2016	MHP 3.5"	2000	1400	340	100926	21	5	1	4	100								
929 Williams Ave	Center Church Rd	Clubview Dr	Public	Full Status	Local	0.285	2019	MHP 3.5"	2002	1503	159	101151	19	6	1.5	1	3	100							
930 Willoughby Ct	Golden Eagle Dr	Terminus	Public	Full Status	Local	0.090	2004	New		473	1080	101895	20	6	2	0	5	88							
931 Willow Dr	Cedar Dr	Terminus	Public	Full Status	Local	0.115	2016	MHP 3.5"	2000	647	605	101138	19.5	6	1.5	1	1	100		2017	2019				
932 Willow Ln	N. Heide Ln	Terminus	Public	Full Status	Local	0.088	2011	Sc&D 1.5"	1983	467	91	101315	21	6	1.5	0	2	65							
933 Wildemere Ct 1	Lexington Dr	Terminus (N)	Public	Full Status	Local	0.216	2002	New		1138	1039	101446	20	6	2	0	7	77							
934 Wildemere Ct 2	Lexington Dr	Terminus (S)	Public	Full Status	Local	0.263	2002	New		1389	889	101445	20	6	2	0	6	65							
935 Windsor Ct	Buckingham Dr	Terminus	Public	Full Status	Local	0.057	2012	New		300	1117	400000	20	6	2	2	1	91							
936 Winona Ct	Concord Dr	Terminus	Public	Full Status	Local	0.123	2017	New		650	1264		20	6	2	5	0	100							

Database updates / Asset management:

Databases for storm sewer outfalls, SWM facilities, traffic signs, and pavement management were updated and maintained in 2021.

Excerpt from pavement management database

Permits & Reviews: In addition to routine interaction with the Planning Department regarding residential and commercial land developments, numerous Grading Permits and On-Lot SWM Approvals were reviewed in-house and issued for single-family residential construction.

Private Land Developments: Engineering review and/or inspection was provided for private land developments in 2021, most notably:

- Hidden Valley Art Studio (Hidden Valley Road)
- Arlechino Restaurant (Camp Lane)
- Anthon property (SR 19)
- Subaru Dealership (SR 19)
- The Waters (Valley Brook Road)
- Confluence Financial (East McMurray Road)

Customer Service: Current and prospective residents and business owners, builders, developers, real estate agents, public utilities, other government bodies and regulatory agencies are some of the 'customers' of the Township whose needs consume a significant portion of Staff time and resources. Customers needs can be varied but typically involve the Engineering Department when they concern grading, drainage, infrastructure, construction projects, property lines, zoning & land development matters, property maintenance, mining, floodplains...etc. As the Township continues to grow, customer service will become more time-intensive.

As always, the Engineering Department worked in-hand with the Township Public Works, Planning, and Park & Recreation Departments to diagnose and solve drainage-related issues, pavement problems, and other resident's concerns involving Township infrastructure and park upgrades.

Licensing & Continuing Education

The State requires Professional Engineers to complete 24 Professional Development Hours (PDH) every two years to maintain their license. My license was renewed in September 2021 and will be up for expiration in 2023. I am attending seminars and continuing education events as time permits to meet the necessary PDH requirements for the period from 2021 to 2023.

Outside Consulting

Gateway Engineering: Appointed as the Primary Consulting Engineer for the Township, the Gateway Engineer's primary role in 2021 was to review subdivision and land development plans to determine compliance with Township ordinances and inspect the installation of public improvements as those developments are constructed. Gateway was primarily involved with Lutz Farms, Sugarbrooke Plan of Lots, Juniper Woods, and Westbury Plan of Lots during 2021. Gateway also performed surveying of several property line issues involving Township land, was engaged to design solutions for several storm sewer projects, and provide earthwork inspection for the aquatics center building pad.

Traffic Engineer - Traffic Planning and Design (TPD): Appointed as official Township Traffic Engineer, TPD performed several Township-requested studies of traffic issues, traffic counts, general review of traffic issues involving land developments, and initiated work on the traffic signal asset management plan.

Lennon, Smith, Souleret Engineering (LSSE): Appointed as the Alternate Consulting Engineer for the Township, LSSE provides review of Gateway Engineer's work if they elect to work for a private entity within the Township or is assigned review of land development plans or given projects at Staff's discretion. In 2021, LSSE reviewed Pemberly Manor and was involved in preapplication conference for two (2) future proposed land developments. Additionally, LSSE was engaged to provide bidding documents and construction inspection for the Laurel & Maplewood Drive improvements project.

Herbert, Rolland, and Grubic (HRG): Designed the Rolling Hills Transportation Improvements project and is still involved in wrapping up loose ends.

Mackin Engineering: Continued to provide construction inspection services for the Rolling Hills Park project in 2021.

GeoDecisions: They are the Township's GIS consultant and mainly assisted with support and licensing following the migration to the new GeoPlan-Web platform in 2019.

D&D Engineering: A small, local electrical engineering firm, D&D, was engaged to complete the design of the site electrical distribution system at Rolling Hills Park.

EPM Architecture: Was hired to complete the design and bidding documents for the new fire station on Bebout Road.