

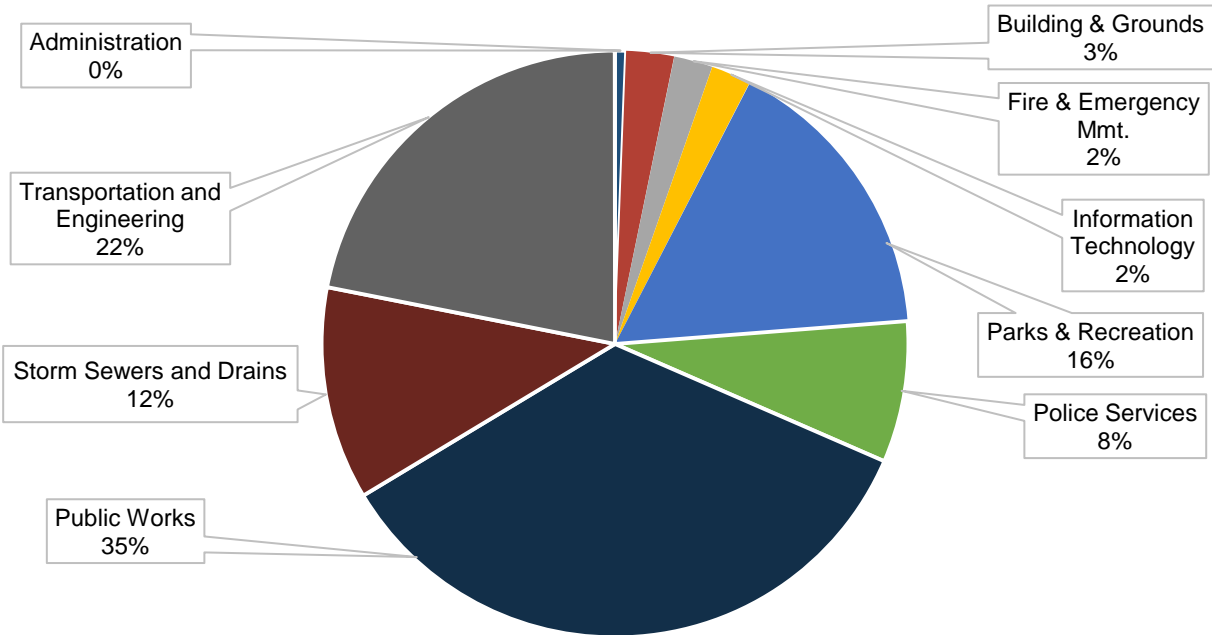
Capital Improvement Plan

The Capital Improvement Plan (CIP) represents a multi-year schedule of major, needed improvements to the Township’s physical property, including equipment and infrastructure. The following pages lists anticipated project costs through the year 2024. Projects planned for 2020 are explained individually. Additionally, expected changes to operating costs, if any, are listed for each 2020 project. The 2020 CIP proposes \$6,607,060 in projects in 2020, and an additional \$16.3 million in projects between 2021 and 2024.

Capital improvement projects are categorized based upon their purpose and asset type. The CIP is comprised of projects in the following nine categories:

- Administration
- Building and Grounds
- Fire and Emergency Management
- Information Technology
- Parks and Recreation
- Police Services
- Public Works
- Storm Sewers and Drains
- Transportation and Engineering

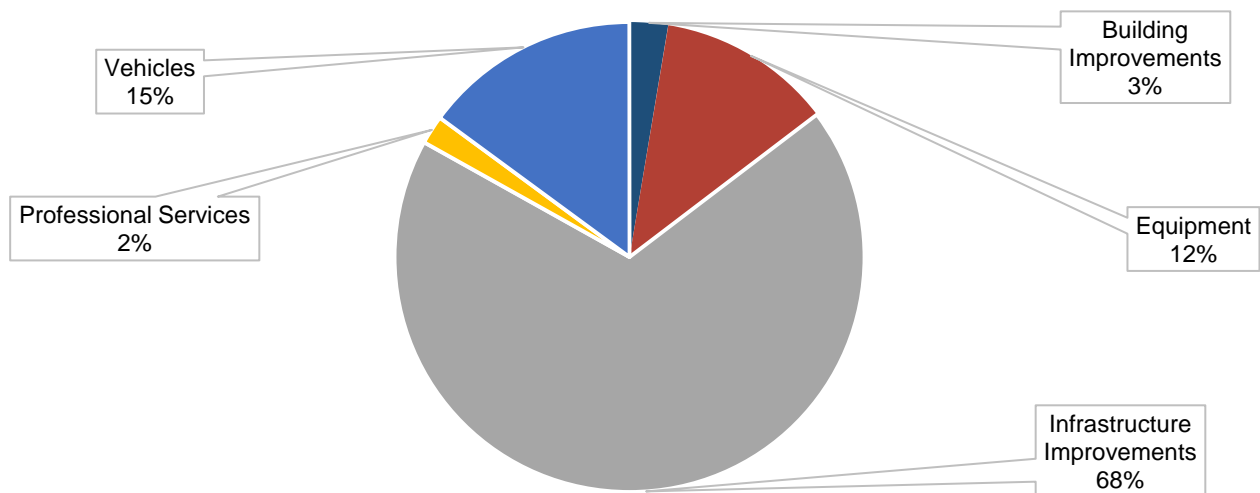
2020 Capital Projects by Project Category



Additionally, capital improvement projects are organized into one of five asset categories:

- Building Improvements
 - Building improvements consist of any modifications to an existing structure.
- Equipment
 - Equipment consists of tools (other than vehicles) used to perform work.
- Infrastructure Improvements
 - Infrastructure improvements consist of permanent modifications to land, such as construction of buildings and structures, drainage infrastructure, road improvements, major equipment used for recreation purposes.
- Professional Services
 - Professional services consist of consultants to perform studies or assist with grant writing.
- Vehicles
 - Cars, trucks, and utility vehicles used across all departments.

2020 Capital Projects by Asset Category



Tracking capital improvement projects by asset category is important because each asset type carries a different requirement for financial reporting and accounting for depreciation. For example, a vehicle typically has a depreciable life of five to ten years, while drainage improvements typically has a depreciable life of fifty years.

Purpose

Middletown Township created a CIP to proactively plan for future capital needs. The CIP offers five primary benefits to the Township:

- Provides effective project and financial management to minimize budget variability;
- Allows for prioritizing of capital needs to ensure the most important projects are funded;
- Allows for consideration of current expenditures' financial effects on future projects;
- Saves Township funds through replacing, repairing, or upgrading infrastructure before maintenance or emergency repair costs escalate; and
- Protects resident safety by ensuring emergency vehicle reliability and removing safety hazards from Township infrastructure.

The Township is able to anticipate its upcoming capital needs and prioritize their completion based on available funds. A key feature to having a detailed long-term plan is the ability to view projects across all departments together to determine how they fit into the Township's long-term goals. It also helps stakeholders understand the impact each project has on the plan as a whole.

Proactively addressing capital needs also can save the Township money over the duration of the plan. Replacing vehicles, for example, prevents sudden increases in vehicle maintenance and can prevent lost productivity if a vehicle were to break down while in use. Purchasing equipment for the Department of Public Works to improve paving allows roads to be repaired faster while saving on hours of labor.

In addition to financial benefits, capital planning also improves quality of service and safety for residents. Replacing aging patrol vehicles can ensure a rapid police response time. Repairing walking paths in parks increases the safety of the residents who use those facilities. It also gives residents an assurance of when to expect major infrastructure changes to occur.

Projects included in the CIP generally have a long life expectancy and high cost. In most cases, capital projects are physical improvements costing over \$5,000 that last for five or more years. Some projects involve one-time purchases, such as vehicle replacement, while others involve multi-year construction plans. Additionally, some projects are replacements or upgrades to existing equipment and facilities, while others bring new assets to the Township.

While projects require funds to complete and, in some cases, maintain, the Township takes careful consideration of how best to allocate resources. Each department has a specific mission and objectives for the upcoming years, and they propose which projects are the highest priorities needed to achieve their goals.

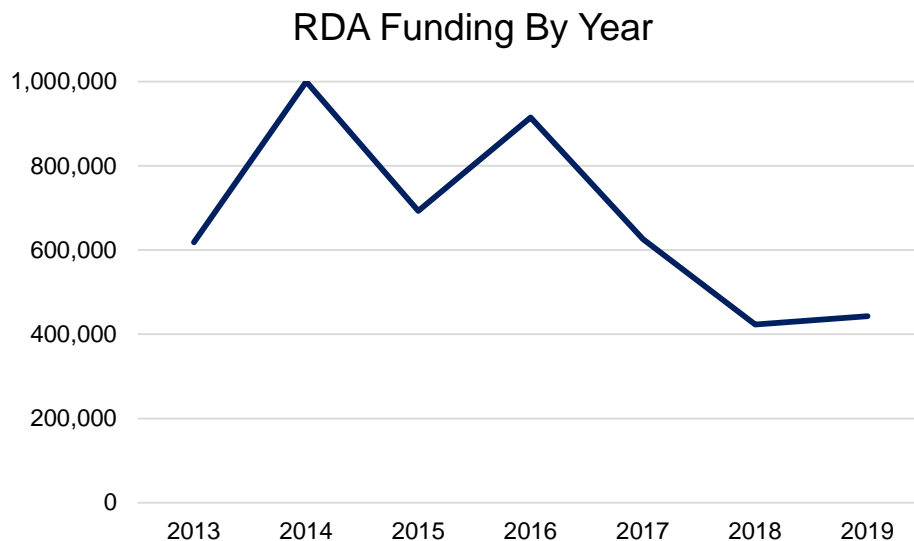
Capital improvements taking place in the current year are included in the budget. Future projects are subject to change as priorities evolve and funds become available. Each year, the Township continues to project future capital needs, updating the CIP with what projects have been completed and what expenditures are projected over a five-year period.

Funding Overview

Many capital improvement projects are funded by transfers from the Capital Fund to the operating budget for the current year. Middletown Township does not levy a tax specifically for funding capital improvement projects. In 2020, the Parks and Recreation Fund and the Street Lighting Fund will be used to offset planned projects at Twin Oaks Park for the first time. Another source of Capital Fund revenue is the Road Machinery Fund, which is used in purchasing vehicles and road equipment for the Department of Public Works. The Township can also refinance debt and issue new borrowing to fund capital projects.

While Township revenues fund many projects, there are some exceptions. Some road improvement projects are funded by state grants through the Transportation Improvement Program (TIP). Road funds are further supplemented by the state with revenue from the Liquid Fuels Tax, which the Township places into the Highway Aid Fund. State grants for parks and open space projects are also available through the Department of Conservation and Natural Resources (DCNR). Additional grants are sometimes available through the Department of Community and Economic Development (DCED).

Another outside source of revenue is the Bucks County Redevelopment Authority (RDA). RDA grants make use of money collected from Parx Casino to help the Township fund projects such as police and public works vehicles replacements. Grants are awarded in November or December for the upcoming year. The Township has not yet been notified of any 2020 RDA grants. The following chart shows grants given by the RDA since 2013.



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2020 Capital Improvement Projects

2020 CAPITAL IMPROVEMENT PROJECTS BY CATEGORY					
Category // Project	Township Capital Fund Cost	Earned Grant/ External Funding	Potential Grant/ External Funding	Due from Other Funds	Total Cost
Administration					
Grant Writing	\$ 40,000	\$ -	\$ -	\$ -	\$ 40,000
TOTAL	\$ 40,000	\$ -	\$ -	\$ -	\$ 40,000
Building & Grounds					
Generator- Phase 2	\$ 89,200	\$ -	\$ -	\$ -	\$ 89,200
Broadcast System Upgrades	30,000	-	-	-	30,000
Key Card System	45,000	-	-	-	45,000
Public Hall Upgrade	10,000	-	-	-	10,000
TOTAL	\$ 174,200	\$ -	\$ -	\$ -	\$ 174,200
Fire & Emergency Services					
Comprehensive Fire Study	\$ 30,000	\$ -	\$ -	\$ -	\$ 30,000
Fire Safety Tent	-	10,000	-	-	10,000
Gas Detector	5,000	-	-	-	5,000
Vehicle & Equipment	-	-	96,000	-	96,000
TOTAL	\$ 35,000	\$ 10,000	\$ 96,000	\$ -	\$ 141,000
Information Technology					
Website Redesign	\$ 16,000	\$ -	\$ -	\$ -	\$ 16,000
Cellebrite	20,000	-	-	-	20,000
Barracuda Email Gateway	10,000	-	-	-	10,000
Patrol Mobile Data Terminals	30,000	-	-	-	30,000
Document Scanning	15,000	-	-	-	15,000
Desktop Computer Replacement	32,900	-	-	-	32,900
Network Switches & Components	22,000	-	-	-	22,000
TOTAL	\$ 145,900	\$ -	\$ -	\$ -	\$ 145,900
Parks & Recreation					
Middletown Community Park-Phase 2	\$ 133,000	\$ 61,000	\$ -	\$ -	\$ 194,000
Tree Remediation	30,000	-	-	-	30,000
Upper Orchard Park	85,000	-	-	-	85,000
Langhorne Spring Water Company	65,000	-	-	-	65,000
Lions Park	10,000	-	-	-	10,000
Forsythia Crossing Park	105,000	-	-	-	105,000
Delaware Park	4,000	-	-	-	4,000
Twin Oaks Park	-	-	-	575,000	575,000
TOTAL	\$ 432,000	\$ 61,000	\$ -	\$ 575,000	\$ 1,068,000

Category // Project	Township Capital Fund Cost	Earned Grant/ External Funding	Potential Grant/ External Funding	Due from Other Funds	Total Cost
Police					
Taser Replacement	\$ 80,000	\$ -	\$ -	\$ -	\$ 80,000
Bulletproof Vests	-	-	43,400	-	43,400
Police Parking Cover	30,000	-	-	-	30,000
Aerial Drone	10,000	-	-	-	10,000
Vehicles & Outfits	-	-	351,000	-	351,000
TOTAL	\$ 120,000	\$ -	\$ 394,400	\$ -	\$ 514,400
Public Works					
Intersection Improvements	\$ 25,000	\$ -	\$ -	\$ -	\$ 25,000
Neighborhood Sign Program	125,000	-	-	-	125,000
Camera Truck	190,000	-	-	-	190,000
Truck Lift	60,000	-	-	-	60,000
Snowplow Attachment	9,500	-	-	-	9,500
Levittown Footbridges	25,000	-	-	-	25,000
Gas/Diesel Tanks	350,000	-	-	-	350,000
Road Improvement Program	1,000,000	-	-	-	1,000,000
Vehicles & Outfits	-	-	518,000	-	518,000
TOTAL	\$ 1,784,500	\$ -	\$ 518,000	\$ -	\$ 2,302,500
Storm Sewer & Drains					
Langhorne Gables/Adams Avenue	\$ 350,000	\$ -	\$ -	\$ -	\$ 350,000
Richardson Avenue	175,000	-	-	-	175,000
Emergency Drainage Projects	250,000	-	-	-	250,000
TOTAL	\$ 775,000	\$ -	\$ -	\$ -	\$ 775,000
Transportation & Engineering					
Comprehensive Plan	\$ -	\$ 30,000	\$ -	\$ -	\$ 30,000
Quiet Zone Project	51,760	177,800	-	-	229,560
Swift Road/Woodbourne Road Traffic Improvements	552,500	-	-	-	552,500
Woodbourne Road/Langhorne-Yardley Road Engineering	300,000	-	-	-	300,000
Walkability Improvements	50,000	-	-	-	50,000
Handicap Ramp Program	225,000	-	-	-	225,000
Traffic Preemption Controllers & Signal Head Replacement	-	-	59,000	-	59,000
TOTAL	\$ 1,179,260	\$ 207,800	\$ 59,000	\$ -	\$ 1,446,060
TOTAL COSTS	\$ 4,685,860	\$ 278,800	\$ 1,067,400	\$ 575,000	\$ 6,607,060

Five-Year Capital Improvement Plan

Category // Project		2020 - 2024 CAPITAL IMPROVEMENT PLAN					
Administration	2020	2021	2022	2023	2024	Five-Year Total	
Grant Writing	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000	
TOTAL	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000	
Building & Grounds	2020	2021	2022	2023	2024	Five-Year Total	
Generator- Phase 2	\$ 89,200	\$ -	\$ -	\$ -	\$ -	\$ 89,200	
Broadcast System Upgrades	30,000	30,000	30,000	30,000	30,000	150,000	
Key Card System	45,000	-	-	-	-	45,000	
Public Hall Upgrade	10,000	-	-	-	-	10,000	
HVAC System	-	250,000	-	-	350,000	600,000	
TOTAL	\$ 174,200	\$ 280,000	\$ 30,000	\$ 30,000	\$ 380,000	\$ 894,200	
Fire & Emergency Services	2020	2021	2022	2023	2024	Five-Year Total	
Comprehensive Fire Study	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000	
Fire Safety Tent	10,000	-	-	-	-	10,000	
Gas Detector	5,000	-	-	-	-	5,000	
Vehicles & Equipment	96,000	39,000	-	-	-	135,000	
Fire Education Equipment	-	10,000	-	-	-	10,000	
TOTAL	\$ 141,000	\$ 49,000	\$ -	\$ -	\$ -	\$ 190,000	
Information Technology	2020	2021	2022	2023	2024	Five-Year Total	
Website Redesign	\$ 16,000	\$ -	\$ -	\$ -	\$ -	\$ 16,000	
Cellebrite	20,000	-	-	-	-	20,000	
Barracuda Email Gateway	10,000	-	-	-	-	10,000	
Patrol Mobile Data Terminals	30,000	30,000	30,000	30,000	30,000	150,000	
Document Scanning	15,000	15,000	15,000	15,000	15,000	75,000	
Desktop Computer Replacement	32,900	25,000	25,000	25,000	25,000	132,900	
Network Switches & Components	22,000	25,000	-	25,000	110,000	182,000	
Watch Guard Server	-	-	25,000	-	-	25,000	
TOTAL	\$ 145,900	\$ 95,000	\$ 95,000	\$ 95,000	\$ 180,000	\$ 610,900	
Parks & Recreation	2020	2021	2022	2023	2024	Five-Year Total	
Middletown Community Park	\$ 194,000	\$ 375,000	\$ 345,000	\$ 300,000	\$ 300,000	\$ 1,514,000	
Tree Remediation	30,000	30,000	30,000	30,000	30,000	150,000	
Upper Orchard Park	85,000	-	-	-	-	85,000	
Langhorne Spring Water Company	65,000	-	-	-	-	65,000	
Lions Park	10,000	-	60,000	70,000	-	140,000	
Forsythia Crossing Park	105,000	15,000	100,000	-	-	220,000	
Delaware Park	4,000	50,000	-	-	-	54,000	
Twin Oaks Park	575,000	933,700	986,300	361,100	631,000	3,487,100	
Deep Dale East Park	-	75,000	-	-	-	75,000	
Cobalt Ridge Park	-	-	160,000	-	-	160,000	
Queen Anne Greenway	-	-	-	630,000	-	630,000	
Mill Creek Greenway	-	-	-	32,000	1,000,000	1,032,000	
Parks Comprehensive Plan	-	-	-	-	60,000	60,000	
TOTAL	\$1,068,000	\$1,478,700	\$1,681,300	\$1,423,100	\$2,021,000	\$ 7,672,100	

Police	2020	2021	2022	2023	2024	Five-Year Total
Taser Replacement	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ 80,000
Bulletproof Vests	43,400	6,000	3,700	16,000	5,900	75,000
Police Parking Cover	30,000	-	-	-	-	30,000
Aerial Drone	10,000	-	-	-	-	10,000
Vehicles & Equipment	351,000	312,000	312,000	312,000	312,000	1,599,000
Office Trailer	-	50,000	-	-	-	50,000
Shooting Range	-	200,000	-	-	-	200,000
TOTAL	\$ 514,400	\$ 368,000	\$ 315,700	\$ 328,000	\$ 317,900	\$ 1,844,000
Public Works	2020	2021	2022	2023	2024	Five-Year Total
Intersection Improvements	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000
Neighborhood Sign Program	125,000	80,000	-	-	-	205,000
Camera Truck	190,000	-	-	-	-	190,000
Truck Lift	60,000	-	-	-	-	60,000
Snowplow Attachment	9,500	-	-	-	-	9,500
Levittown Footbridges	25,000	75,000	-	75,000	-	175,000
Gas/Diesel Tanks	350,000	-	-	-	-	350,000
Road Improvement Program	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Vehicles & Equipment	518,000	235,000	170,000	15,000	-	938,000
TOTAL	\$2,302,500	\$1,415,000	\$1,195,000	\$1,115,000	\$1,025,000	\$ 7,052,500
Storm Sewer & Drains	2020	2021	2022	2023	2024	Five-Year Total
Langhorne Gables/Adams Avenue	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 350,000
Richardson Avenue	175,000	-	-	-	-	175,000
Emergency Drainage Projects	250,000	250,000	250,000	250,000	250,000	1,250,000
Hillside Avenue	-	200,000	-	-	-	200,000
TOTAL	\$ 775,000	\$ 450,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,975,000
Transportation & Engineering	2020	2021	2022	2023	2024	Five-Year Total
Comprehensive Plan	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000
Quiet Zone Project	229,560	-	-	-	-	229,560
Swift Road/Woodbourne Road Traffic Improvements	552,500	-	-	-	-	552,500
Woodbourne Road/Langhorne-Yardley Road Engineering	300,000	-	-	-	-	300,000
Walkability Improvements	50,000	-	-	-	-	50,000
Handicap Ramp Program	225,000	225,000	225,000	225,000	200,000	1,100,000
Traffic Preemption Controllers & Signal Head Replacement	59,000	45,000	45,000	45,000	45,000	239,000
TOTAL	\$1,446,060	\$ 270,000	\$ 270,000	\$ 270,000	\$ 245,000	\$ 2,501,060
ALL CATEGORIES	2020	2021	2022	2023	2024	Five-Year Total
TOTAL COSTS	\$6,607,060	\$4,475,700	\$3,877,000	\$3,551,100	\$4,458,900	\$ 22,969,760

Administration

The Township Administration oversees day-to-day operations within the Township. Capital projects that are designated under Administration are those which support multiple departments and categories. The only project listed is annual grant writing fees.

Project	2020	2021	2022	2023	2024	Five-Year Total
Grant Writing	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000
TOTAL	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000

Grant Writing - \$40,000

Middletown Township retains the services of a grant writing firm which manages the applications for multiple grants per year. The Township applies for dozens of grants per year for a value typically exceeding \$1 million. These grants help fund capital projects and many services throughout the community. Additionally, the grant writers also research funding opportunities so that the Township can consider new sources of revenue.

Grant writing services are provided throughout the year and are renewed on an annual basis. No additional charges are incurred beyond the annual retainer fee. Operating costs for specific grant projects are listed on the appropriate project page. Grant writing services are paid through the Capital Fund.

Ongoing costs: \$40,000 per year.

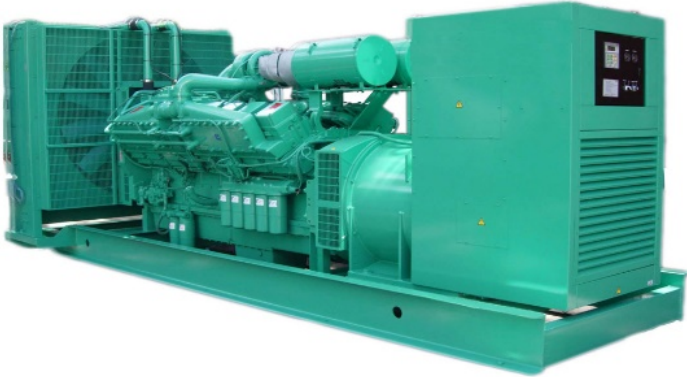
Building & Grounds

Building and Grounds includes any physical improvements to Township facilities that are not otherwise covered by a different category. Most expenditures in this category are upgrades to the Township Municipal Center. Some expenditures are ongoing grounds improvements, while others are significant, individual upgrades such as a new HVAC system. Building and Grounds projects are typically funded by the Capital Fund.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Generator- Phase 2	\$ 89,200	\$ -	\$ -	\$ -	\$ -	\$ 89,200
Broadcast System Upgrades	30,000	30,000	30,000	30,000	30,000	150,000
Key Card System	45,000	-	-	-	-	45,000
Public Hall Upgrade	10,000	-	-	-	-	10,000
HVAC System	-	250,000	-	-	350,000	600,000
TOTAL	\$ 174,200	\$ 280,000	\$ 30,000	\$ 30,000	\$ 380,000	\$ 894,200

Generator – Phase 2 - \$89,200

The Township replaced its power generator in 2019. The generator provides power to some offices in the Municipal Center during a power outage. With the new generator installed, the Township will complete a study to determine if the new generator can power more offices than those currently supported. The previous generator had a very limited ability to power the building when needed. Completing a study and using the new generator to power additional offices and areas of the building will improve efficiency and Township services during a power outage while allowing the Municipal Center to better serve as a temporary refuge for residents without power.



The study will be completed in 2020, and the recommendations will be implemented later in the year. Employees will have increased productivity and less downtime during a power outage. Phase 2 of the generator upgrade will be funded through the Capital Fund. This project is contingent upon available funding.

Broadcasting Equipment - \$30,000

The Township's current broadcasting system was installed in 2006, and many parts have reached the end of their useful life. Yearly maintenance and upgrades ensures that the system stays reliable and current with modern technology. The upgrade planned for 2020 is a new server that is high definition compatible. Regularly upgrading and replacing parts of the broadcasting system will spread costs out over the duration of this CIP rather than incur a significant cost to the Township all at once. The new server will replace one that is past its useful life and no longer supported by the manufacturer.



The server will be purchased and installed in 2020. The server upgrade will have a negligible impact on operating expenses. Broadcasting improvements are funded through the Capital Fund.

Ongoing costs: \$30,000 per year.

Key Card System Upgrade - \$45,000

The Key Card System is a security measure that controls access to different sections of the Municipal Center. It protects the main entrance as well as the Police Department and several confidential offices. The Township plans to upgrade the software and motherboard that operate the system. The Key Card System is essential for the security of the building. It allows each employee's card to be programmed to open specific offices based on need, and offers the security



and confidentiality protections required during day-to-day operations of the Township and Police Department. The current software is older and no longer supported by the vendor, so upgrading the system will allow for continued functionality as well as service should issues arise.

The software will be purchased and installed in 2020. The server upgrade will have a negligible impact on operating expenses. The system will be purchased using the Capital Fund.

Public Hall Upgrade - \$10,000

The Township will upgrade the Public Hall to improve the acoustics within the room. The room is large, and its concrete walls can cause sound waves to reflect away from where people are sitting. A combination of acoustic panels and drapes are being considered to mitigate these issues and improve the sound quality for those within the Public Hall. The Public Hall holds many public meetings and events throughout each year, and it is important for speakers and attendees alike to be able to hear when someone speaks into the microphones.

The upgrade will take place in 2020. The server upgrade will have a negligible impact on operating expenses. The upgrade will be funded by the Capital Fund. This project is contingent upon available funding.



Fire & Emergency Management

The Department of Fire and Emergency Management maintains equipment and several vehicles for fire inspections, fire prevention, and emergency response. Vehicles are replaced regularly to minimize maintenance costs and ensure the safety of residents and staff. Many of the Department’s needs are funded through the Capital Fund, but RDA funding is available in some cases as well.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Comprehensive Fire Study	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000
Fire Safety Tent	10,000	-	-	-	-	10,000
Gas Detector	5,000					5,000
Vehicles & Equipment	96,000	39,000	-	-	-	135,000
Fire Education Equipment	-	10,000	-	-	-	10,000
TOTAL	\$ 141,000	\$ 49,000	\$ -	\$ -	\$ -	\$ 190,000

Comprehensive Fire Study - \$30,000

The Township will contract with a consultant to conduct a Comprehensive Fire Services Study. The study will assess the emergency and fire response needs of the community to determine what services are needed. It will be conducted by a third party consultant. The Department is committed to working with local fire companies and emergency services to ensure the safety of the community. This study will thoroughly assess the needs of the community and identify gaps in necessary services. The Department can then effectively coordinate its efforts with local emergency services to better protect the community.

The Comprehensive Fire Study will be conducted in 2020. There will be no direct operating costs associated with this project, but the study may recommend actions to the Township that will impact future expenses. This projected will be funded by the Capital Fund.



Fire Safety Tent - \$10,000

Middletown's fire safety trailer was recently damaged beyond repair. When in use, the trailer was a key feature in the Department's fire safety education programs. To replace it, they will purchase a tent with a similar function. The new tent will help children practice how to safely exit a building during a fire. The fire safety tent will help prevent injury by simulating emergency situations and giving children and adults a safe chance to practice evacuations. With the loss of the trailer, the Department needs to replace an important educational tool.



The tent will be purchased in 2020. The tent will require minimal maintenance over time. Since the new tent is more portable than the preexisting trailer, it will increase staff efficiency. The tent will be purchased with money from an insurance claim on the fire safety trailer that was damaged.

Gas Detector - \$5,000



The Department will purchase a handheld gas detector. This device can be used to detect gas when staff are investigating a potential leak or responding to fires and other emergencies. Gas leaks can present a serious safety hazard to those in close proximity. When in the field, this device will allow staff to detect and identify the source of such hazards before an incident occurs.

The gas detector will be purchased in 2020. Minimal maintenance may be required during the useful life of the device. The purchase will be made with funds from the Capital Fund.

Vehicle Replacement - \$96,000

The Fire and Emergency Management Department has several vehicles that are used in inspections and emergency activities. Each vehicle is replaced approximately every ten years. A pickup truck will be purchased in 2020, and it will include an air foam firefighting system that will not require use of a pump or large water supply. Vehicles must be replaced to prevent excessive maintenance costs and ensure usability of vehicles in an emergency situation. This vehicle will allow for better response to emergencies in areas unreachable to a larger fire engine. Additionally, its larger, safer storage capabilities will improve efficiency and reduce the injury risk to employees.

Vehicles are replaced on an ongoing basis every ten years. The truck and associated equipment will be purchased in 2020. New vehicles will reduce maintenance and fueling costs, and the added safety features of this vehicle can prevent costs from potential injuries to employees. The Township has applied to a grant from the RDA for this vehicle. Any amount not covered by the grant will be supplemented by the Capital Fund.

Ongoing costs: \$39,000 in 2021.

Information Technology

Information Technology (IT) expenditures typically involve significant upgrades or changes to the Township’s software, hardware, and network capabilities. Most IT equipment purchases, such as new servers or annual computer upgrades, are considered capital projects. These projects also include upgrades to software and network security. IT projects are typically funded through the Capital Fund. Even though some projects are specific to single departments, all technology capital expenses are incurred here.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Website Redesign	\$ 16,000	\$ -	\$ -	\$ -	\$ -	\$ 16,000
Cellebrite	20,000	-	-	-	-	20,000
Barracuda Email Gateway	10,000	-	-	-	-	10,000
Patrol Mobile Data Terminals	30,000	30,000	30,000	30,000	30,000	150,000
Document Scanning	15,000	15,000	15,000	15,000	15,000	75,000
Desktop Computer Replacement	32,900	25,000	25,000	25,000	25,000	132,900
Network Switches & Components	22,000	25,000	-	25,000	110,000	182,000
Watch Guard Server	-	-	25,000	-	-	25,000
TOTAL	\$ 145,900	\$ 95,000	\$ 95,000	\$ 95,000	\$ 180,000	\$ 610,900

Website Redesign - \$16,000

In August 2019, the Township awarded an RFP to Creative Marketing Alliance to overhaul the Township website. The current website was designed in 2013, and website technology and best practices have changed. The Township seeks a redesigned page that makes information more readily accessible to residents. The current website has begun to feel dated, and residents have expressed trouble finding the information they seek. The Township prioritizes its accessibility to the community, and the website is often the first point of contact with the public. Easy access to information and services through the website is a necessity for delivering efficient, high-quality service to residents.

Website design began in 2019 and will be completed in early 2020. The new website hosting fee will be marginally higher than the fees with the previous vendor. The design and first year hosting fee will be paid through the Capital Fund. Two-thirds of the cost of the website design was paid out in 2019.



Ongoing costs: \$4,400 per year, expensed from the operating budget.

Cellebrite - \$20,000

The Police Department plans to purchase Cellebrite, an investigation software that allows them access to locked mobile devices. Such access will only be available after receiving a warrant. The Police Department currently has no way to access locked mobile devices in-house. When they receive a warrant to search a phone during an investigation, they often have to rely on neighboring municipalities who have the software. This delay can cause significant issues when searching for a suspect or a missing person.



The software will be purchased and installed in 2020. While the software purchase will take place in 2020, the Township will owe a maintenance fee in future years. The software will be purchased through the Capital Fund.

Barracuda Security Gateway - \$10,000

The Township will replace its Barracuda Security Gateway. This filters out spam and helps prevent malware attacks on the Township's network and data. The new system will both have more current security capabilities and improved functionality for employees in searching their email records. Spam and malware pose a threat to public entities. Enhancing security capabilities will better allow the Township to protect its data and taxpayer money from malicious software.

The new Barracuda Security Gateway will be purchased and installed in 2020. An annual fee will grant the Township access to updated security measures from the manufacturer. The purchase will be made using the Capital Fund. This project is contingent upon available funds.

Patrol Mobile Data Terminals (MDT'S) - \$30,000



Each Police Department vehicle has an on-board computer that allows reporting and data access for officers on patrol. The Township last upgraded these Mobile Data Terminals (MDT) in 2015. In order to keep them functioning at a high level, the Township will begin a plan to replace five MDTs per year. These computers are a highly valuable resource to officers on patrol. Similar to desktop computers, regular replacement ensures that the MDTs are functioning properly when officers need them. Changing to a recurring replacement plan will help the Township smooth the replacement costs over several years rather than making one significant purchase at a time.

Five MDTs will be purchased in 2020. New MDTs will require less investment for maintenance. The MDTs will be purchased using funds from the Capital Fund.

Ongoing costs: \$30,000 per year.

Document Scanning - \$15,000

The Department of Building and Zoning have property records and other documentation that has existed for decades. These records must be maintained, but are difficult to search in their current paper form. The Township will begin the process of transferring these records to electronic storage. Unlike many entities that can dispose of records after a certain amount of time, the Department of Building and Zoning must keep property records indefinitely. As they move forward with improved software to better serve the community, electronic records will be necessary for the Department to function optimally.

The Township will begin the project in 2020, and it is expected to last for several years. Staff efficiency will improve as they have easier access to electronic files. The project will be funded by the Capital Fund. This project is contingent upon available funds.

Ongoing costs: \$15,000 per year.

Desktop Computer Replacement - \$32,900

Most Township employees require the use of a computer for their day-to-day tasks. As computers age, they become obsolete and more likely to break down. The Township has developed a schedule to regularly replace all of its computers. The first year will require more replacements than subsequent years because many Township computers still run on Windows 7. Microsoft announced they will end their support for this operating system in 2020, and many of the machines are not equipped to run Windows 10. Replacing computers is essential to ensuring that employees can work efficiently. Additionally, replacing the Windows 7 machines with those using Windows 10 will allow the Township to continue receiving important security updates.

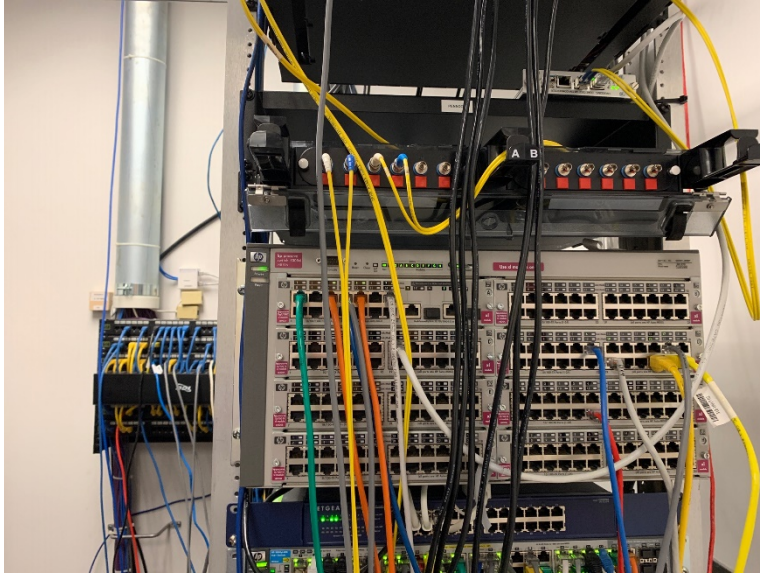
The Township will purchase and replace 44 desktop computers in 2020. New computers will require less maintenance and be more secure than the machines they will replace. The purchases will be made through the Capital Fund.

Ongoing costs: \$25,000 per year.



Network Switches and Components - \$22,000

The Township will replace its network switches in 2020. The switches connect each individual computer to the network and internet. The switches currently in use range from seven to twelve years old and are considerably slower than current standards recommend. The Township upgraded its network servers in 2019, but the switches are necessary for computers to use the improve speed capabilities. The current switches are slow and dated. Employees suffer increased



lag time when accessing their files or using the internet. Upgraded the switches will improve the speed and performance of each computer accessing the network.

All switches will be purchased and installed in 2020. The new switches will be faster and more reliable, so employee efficiency will increase while maintenance costs decrease. The purchase will be funded through the Capital Fund.

Ongoing costs: \$25,000 - \$110,000 per year.

Parks & Recreation

Capital needs for the Parks and Recreation Department revolve predominantly around improving and maintaining facilities, improving parking, constructing facilities, making changes for safety, and replacing equipment. Specific projects range from planting trees to site planning and constructing buildings. Several of the projects listed involve expenditures outside the scope of this CIP, whether they are completed parts of the project or future plans. Parks and Recreation projects are funded through the Capital Fund, DCNR grants, County funds, grants through the state Department of Community and Economic Development (DCED), and other outside sources as available for specific projects. When the reserve funds exist, some money from the Parks and Recreation Fund is transferred to offset the cost of select capital projects.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Middletown Community Park	\$ 194,000	\$ 375,000	\$ 345,000	\$ 300,000	\$ 300,000	\$ 1,514,000
Tree Remediation	30,000	30,000	30,000	30,000	30,000	150,000
Upper Orchard Park	85,000	-	-	-	-	85,000
Langhorne Spring Water Company	65,000	-	-	-	-	65,000
Lions Park	10,000	-	60,000	70,000	-	140,000
Forsythia Crossing Park	105,000	15,000	100,000	-	-	220,000
Delaware Park	4,000	50,000	-	-	-	54,000
Twin Oaks Park	575,000	933,700	986,300	361,100	631,000	3,487,100
Deep Dale East Park	-	75,000	-	-	-	75,000
Cobalt Ridge Park	-	-	160,000	-	-	160,000
Queen Anne Greenway	-	-	-	630,000	-	630,000
Mill Creek Greenway	-	-	-	32,000	1,000,000	1,032,000
Parks Comprehensive Plan	-	-	-	-	60,000	60,000
TOTAL	\$1,068,000	\$1,478,700	\$1,681,300	\$1,423,100	\$2,021,000	\$ 7,672,100

Middletown Community Park - \$194,000

Middletown Community Park is currently undergoing significant improvements across multiple phases designed to enhance the functionality of the park. In 2019, the first phase completed with the opening of the new skate park and the creation of new walking paths. The second phase includes the installation of a Sutu Kick Wall and a new outdoor senior fitness area. The kick wall will offer a new recreational opportunity for residents that includes sports games and drills. The fitness equipment will be designed to encourage social engagement while working out. Future improvements will include lighting upgrades, walkability improvements, and upgrades to the Barn.

Middletown Community Park is the Township's largest park, and it is important to keep its functionality high. Many of these projects add new features and improve existing assets to help the Township offer more recreational and programming opportunities for Township residents. Renovations to the Barn are necessary to maintain one of the used assets in the community.



The kick wall and fitness equipment are scheduled to be installed in 2020. Other improvements will run through 2024. The new equipment purchased in 2020 will require minimal maintenance. The upgrades at the Barn will decrease maintenance costs, as will the improved lighting. The new lights will also reduce energy consumption and therefore decrease electric costs. The kick wall and senior fitness equipment is funded partially by the DCNR grant, with the Township's grant match coming from the Capital Fund. The Township will explore additional funding sources for future stages of the project. Projected costs for this project include engineering costs.

Ongoing costs: \$300,000 - \$375,000 per year.



Tree Remediation - \$30,000

Ash trees throughout the Township have been infected by an invasive insect called the emerald ash borer. Hundreds of trees have already been killed and must be removed. Additionally, the spotted lantern fly, another invasive insect, has made its way to the area and causes further damage to plants and trees throughout the region. Trees killed by either species will be removed by a combination of Township staff and contractors,



depending on the size and location of the tree. Replacement trees will be added to replenish the canopy as ash trees are removed. Over the course of this CIP, as more ash trees die, they will be removed and replaced with a different species of tree. Trees killed by emerald ash borers and spotted lantern flies do not offer the same environmental benefits to the Township as do healthy trees. Additionally, dead trees pose a risk of falling, potentially damaging property or endangering the safety of residents.

Tree removal and replacement began in 2016 and has continued through 2019. Township staff and contractors will remove the additional dead trees in 2020.

Trees will continually be removed throughout the duration of this CIP as more infections are discovered. Minimal reduced maintenance costs as new trees are less likely to require trimming and other treatments than those which have grown over time. Tree removal and replacement will be funded through the Capital Fund.

Ongoing costs: \$30,000 per year.



Upper Orchard Park - \$85,000

The Township will replace the playground at Upper Orchard Park. Like facilities in other parks, this playground was installed many years ago and will need to be replaced. Playground equipment wears with use over time, and it is important to replace it to maintain a safe place for children to play.

The playground will be replaced in 2020. New playground equipment will require less investment in maintenance. The project will be funded by the Capital Fund.



Langhorne Spring Water Company - \$65,000

The Township will make improvements to preserve the main structure at Langhorne Spring Water Company. This historic building, constructed in 1892, currently has a leaking roof as well as an entrance path that is covered with holes. The roof will be repaired and the pathway will be repaved. The Township purchased this property to preserve the open space and historic structure, and these improvements will ensure that the building remains in good condition. Additionally, improving the building and making it more accessible may allow for additional future recreation opportunities.

The improvements will be made in 2020. The improvements will prevent further damage to the property and will reduce future maintenance costs. The repairs will be funded by the Capital Fund.

Lions Park - \$10,000

Lions Park will see two upgrades during the course of this CIP: parking and playground equipment. Additional parking will be added to Lions Park. Township staff will alter dimensions of the curb to create and clearly mark spaces for street parking along the park property. Creating designated street parking not only adds to the capacity and functionality of the park, but it also provides safety for visitors and drivers. Clearly designated street parking will minimize traffic hazards and help prevent visitors from parking in dangerous areas.

The parking lot will be completed with in-house labor in 2020. The playground will be replaced in 2022. The parking lot will have no immediate impact on operating expenses. The project will be funded by the Capital Fund. This project is contingent upon available funds.

Ongoing costs: \$60,000 in 2022; \$70,000 in 2023.

Forsythia Crossing Park - \$105,000

Lighting will be added to Forsythia Crossing Park facilities. Both the hockey rink and walking paths will have new lights installed. The Parks and Recreation Department seeks to improve the functionality of their facilities so that they can benefit more residents. Adding lighting to the hockey rink and paths will allow them to be safely used for events later in the evening.



The lighting will be installed in 2020. The Township will be responsible for maintenance of the lights as well as costs for additional electricity. The project will be funded by the Capital Fund. This project is contingent upon available funds.

Ongoing costs: \$15,000 in 2021; \$100,000 in 2022.

Delaware Park - \$4,000

The Township will make landscaping improvements at Delaware Park. Some overgrown vegetation will be cut back to allow for a better passive recreation experience. The Township will later construct wetlands education facilities in 2022 that will allow for the Parks and Recreation Department to host programs at this location. Delaware Park is a natural habitat area that greatly lends itself to outdoor education. The Township owns many parks and open space properties, and it is important to ensure that each has the best recreational use available for residents. The wetlands education facility will provide valuable educational opportunities in a natural setting.

The landscaping improvements will be completed in 2020, and the facility will be constructed in 2022. The landscaping improvements will not have an impact on operating expenses as the Township already maintains the property. The project will be completed through the Capital Fund. This project is contingent upon available funds.

Ongoing costs: \$50,000 in 2021.

Twin Oaks Park - \$575,000

The renovations at Twin Oaks Park will improve the accessibility and functionality of one of the Township's largest parks. The project will be completed over multiple phases totaling approximately \$4 million. The first phase will include upgrading the lighting at the main field as well as improvements to the drainage on the park property. Future phases will include new fields, resurfaced parking lots, new walking trails, and many other landscaping, drainage, and recreation improvements. Twin Oaks Park is one of the Township's largest parks and has several fields that are used by the community and youth sports organizations. Renovations in the first phase will allow the community to make better use of the fields.



Phase one of the project is scheduled to begin in 2020. Other phases will run through 2024. Impact on Operating Expenses: The new lights will be cheaper to maintain and require lower spending on energy than the current lighting. The drainage will reduce the need for repairs to flooded fields.

Ongoing costs: \$361,000 - \$986,000 per year.

Police

The Police Department requires capital improvements to maintain and enhance their ability to provide public safety. The key driver of capital costs for the Department is the vehicle replacement plan, as several vehicles must be replaced each year. The Department will also see several technical upgrades during the scope of this CIP that will increase officer and resident safety, update data systems, and bring down Township operating costs. Lastly, physical repairs and improvements to the police station are required for safety, security, and efficiency.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Taser Replacement	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ 80,000
Bulletproof Vests	43,400	6,000	3,700	16,000	5,900	75,000
Police Parking Cover	30,000	-	-	-	-	30,000
Aerial Drone	10,000	-	-	-	-	10,000
Vehicles & Equipment	351,000	312,000	312,000	312,000	312,000	1,599,000
Office Trailer	-	50,000	-	-	-	50,000
Shooting Range	-	200,000	-	-	-	200,000
TOTAL	\$ 514,400	\$ 368,000	\$ 315,700	\$ 328,000	\$ 317,900	\$ 1,844,000

Taser Replacement - \$80,000

The Police Department began replacing all of their Tasers in 2019. The ones previously in use are aging and are no longer the current models. The replacement will continue in 2020. Tasers are an essential piece of equipment for officers that allows them to use non-lethal force on resisting suspects. Replacing the old models for new ones will ensure that they work when needed. Additionally, older models are often no longer supported and serviced, so repairs become very difficult.



The Police Department began replacing Tasers in 2019 and will conclude the upgrade in 2020. New Tasers will require less investment in maintenance. The Tasers will be purchased using money from the Capital Fund.

Bulletproof Vests - \$43,400

The Police Department will replace 34 of its bullet proof vests. Vests are replaced regularly based on manufacturer recommendations. The vests purchased in 2020 will replace those that are due to expire during the year. Bullet proof vests are essential to keep Police Officers safe while on patrol. The manufacturer notes that they expire after five years of use, and their functionality is no longer guaranteed. Replacing them in a timely manner will ensure officer safety.

Vests are replaced when they are set to expire. In 2020, 34 vests will be replaced. Bulletproof vests will not likely have any impact on operating expenditures. The Township will apply for grant funding for the vests. Remaining costs will be funded by the Capital Fund.

Ongoing costs: \$3,700 - \$16,000 per year.

Patrol Parking Cover - \$30,000

The Police patrol vehicles are kept under an overhang to keep them out of the rain and snow. The overhang currently does not extend all the way to the exit from the Police Department, so the Department plans to extend the roof so that the entire walking and storage area is covered. This overhang is an important feature that keeps the path from the Police Department to the vehicles clear of rain and snow. As it currently stands, the area immediately outside the exit to the building is uncovered, which allows it to get snowy and icy in the winter. This presents a potential hazard to an officer who is quickly heading toward a vehicle to respond to an emergency. Extending the roof of the overhand would remove a hazard and help prevent injuries to officers.

The extension will be constructed in 2020. The parking cover will require minimal maintenance, and it will prevent future injury expenses to the Township. The project will be funded through the Capital Fund. This project is contingent upon available funds.

Aerial Drone - \$10,000

The Police Department will purchase an aerial drone that will be able to take overhead images and videos. Multiple officers have undergone the training needed to become certified to operate a drone, and this new functionality will be available at all times. Its primary uses will be to get images of accidents and assist in locating missing persons. The drone will add important capabilities for the Police Department. When the Police are notified that someone is missing or a child has run away, a drone can help them search areas quickly that are otherwise inaccessible or too slow to search on foot. Additional image and video angles will also aid them in investigation of incidents and vehicle accidents.

The drone will be purchase in 2020. The Township will be responsible for costs of maintaining the drone. The Township will also have to pay for training and certification of additional officers over time. The drone will be purchased through the Capital Fund.

Vehicle Replacement - \$351,000

Police vehicles experience more wear and abuse than other Township vehicles, and they often must be replaced more frequently. The Department currently has a total of 51 sedans and SUVs in its active fleet. This number includes marked vehicles for patrol officers and unmarked vehicles for detectives and lieutenants. Both marked and unmarked vehicles are replaced each year. In 2020, the Department will also purchase a van for its Animal Control Officer, replace one motorcycle, and add one all-terrain vehicle (ATV).



Members of the Police Department require vehicles for patrols, investigations, and responses to emergencies. Vehicles must be replaced before they are at risk of breaking down, leaving the



force with fewer vehicles to use in providing public safety. The new van will replace an unsafe sedan that does not meet the animal control needs of the community. Motorcycles and ATVs allow the Department to set up specialized units, such as enforcing traffic or patrolling wooded areas. Keeping to a vehicle replacement plan also helps keep maintenance costs under control.

Vehicle replacement is a yearly, ongoing occurrence. New vehicles require less maintenance investment and suffer less downtime for repairs. The Township applied for RDA grants to fund the purchase of police vehicles. Any remaining balance beyond the grant awards will be paid from the Capital Fund.

Ongoing costs: Approximately \$312,000 per year.

Public Works

The Department of Public Works is responsible for a wide variety of roads and safety projects, and their capital needs reflect the diversity of their responsibilities. Some projects, such as road repaving, are ongoing and have an average budgeted amount each year. Other projects are specific purchases of equipment. Each of the Department’s capital projects are geared toward fixing roads, upgrading equipment, traffic safety, and employee safety. Projects are funded through the Capital Fund, Liquid Fuels Fund, Road Machinery Fund, RDA grants, and bonds.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Intersection Improvements	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000
Neighborhood Sign Program	125,000	80,000	-	-	-	205,000
Camera Truck	190,000	-	-	-	-	190,000
Truck Lift	60,000	-	-	-	-	60,000
Snowplow Attachment	9,500	-	-	-	-	9,500
Levittown Footbridges	25,000	75,000	-	75,000	-	175,000
Gas/Diesel Tanks	350,000	-	-	-	-	350,000
Road Improvement Program	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Vehicles & Equipment	<u>518,000</u>	<u>235,000</u>	<u>170,000</u>	<u>15,000</u>	<u>-</u>	<u>938,000</u>
TOTAL	\$2,302,500	\$1,415,000	\$1,195,000	\$1,115,000	\$1,025,000	\$ 7,052,500

Intersection Improvements - \$25,000

The Township is responsible for maintaining the markings at all major intersections, including those on state-owned roads. Crosswalks, stop bars, and other lines and markers will be replaced. The Township will remove current, faded markings and repaint them using a long-lasting thermoplastic. Traffic safety is a responsibility and high priority for the Township. Faded markings can be more difficult for motorists to see, potentially causing them to stop in the wrong place or fail to see a crosswalk.

Several intersections were completed from 2017 to 2019, and additional intersections will be repainted in 2020. This project is not expected to have an impact on operating costs. This project will be funded through the Capital Fund.

Ongoing costs: \$25,000 per year.



Neighborhood Sign Program - \$125,000

In 2019, The Township began a project aimed at adding or upgrading signs at all neighborhood entrances. The first phase was to replace existing signs, and the second phase adds signs to entrance that do not currently have them. The signs follow a uniform design that is unique to the Township. Public Works staff will complete the installation.

Some neighborhood entrances have signs that are aging or faded, and others have none at all. Doing a Township-wide upgrade will increase the sense of community identity and ensure that all Middletown neighborhoods are easily identifiable.

Sign installation began in 2019, and phase 2 will be completed in 2020. This project is not expected to have an impact on operating costs. The sign upgrade project will be funded by the Capital Fund.



Ongoing costs: \$80,000 in 2021.

Camera Truck - \$190,000

The Department of Public Works plans to purchase a new camera truck for the Township. The vehicle will have a mounted camera attachment that will be able to get into storm drains and sewers to take images and videos of the drainage system. Its recordings will be used to proactively determine and address potential problem areas in the Township's storm water infrastructure. The Department is responsible for maintaining storm water pipes and sewers. Currently, if they need to inspect an area, they need to bring in an outside contractor to get images. Having this truck will allow for safe and efficient detection of issues and allow the Township to prioritize areas of need to repair projects.

The camera truck will be purchased in 2020. Maintenance and the observation of problems in the storm water system may cause some initial increases in operating costs. In the long run, operating costs will decrease as more significant damage and emergency repairs can be prevented. The truck will be purchased using money from the Capital Fund. This project is contingent upon available funds.

Truck Lift - \$60,000

The Township will add a truck lift to the Public Works shop to aid in vehicle repair. This new feature will be able to elevate even the large dump trucks in the fleet to allow mechanics to make necessary repairs underneath the vehicles. The truck lift was originally designed to be in the shop when it was first built, but it was left out of final construction. Adding the lift will not only make vehicle repairs significantly easier but it will also drastically reduce the risk of employee injury. Public Works mechanics will be able to safely reach parts under the vehicles when repairs are necessary.



The truck lift will be purchased and installed in 2020. Maintenance costs will reduce as repairs can be made faster, safer, and more efficiently. The lift will be purchased using the Capital Fund. This project is contingent upon available funds.

Snow Plow Attachment - \$9,500

The Township will purchase a snow plowing attachment to allow the skid steer to aid in clearing snow. The attachment will add another option to the Township fleet in clearing snow from roads, parking lots, and walkways. Keeping roadways and walkways safe is one of the Township's most important responsibilities and highest priorities. Adding this attachment will give the Department of Public Works an additional tool to make clearing snow a more efficient process.

The attachment will be purchased in 2020. Impact on Operational Costs: Minimal maintenance costs in the future will be offset by improved employee efficiency during snow clearing operations. The attachment will be purchased using the Capital Fund.

Levittown Foot Bridges - \$25,000

Greenways in Levittown have pedestrian bridges which connect walking paths on either side of the water. These aging bridges are in need of replacement to maintain structural integrity while ensuring proper runoff of water. The current bridges are aging and structurally deficient. Portions of some of the bridges have fallen down and continue to crumble. Replacing these bridges is important for resident safety to prevent serious injury to those trying to cross as well as to prevent further damage to the bridges or the surrounding walkways.

The footbridges are expected to be replaced in 2020. New bridges will not require sudden maintenance costs due to aging and they will help prevent future costs from additional damage. The bridge replacement will be paid for using the Capital Fund. This project is contingent upon available funding.

Ongoing costs: \$75,000 in 2021 and 2023.

Replacement of Gas and Diesel Tanks - \$350,000

The existing underground gas and diesel tanks at the Public Works building are coming to the end of their useful lives. The Department will replace both tanks to properly store the fuel. Both tanks are aging, and over time can become less safe for fuel storage. Replacing the underground tanks with new above-ground tanks will ensure that the contents are stored safely without the likelihood of a leak.

Both tanks will be purchased and installed in 2020. The new tanks may save a minimal amount in maintenance costs. Both tanks will be purchased through the Capital Fund.



Road Improvement Program - \$1,000,000

Road improvement includes repairing roads damaged during the winter as well as those whose pavement has worn out with use over time. The projected schedule is detailed in the Township's fourteen-year Road Improvement Plan. While some work is completed with Public Works staff, larger projects are typically contracted by issuing an RFP. Damaged and worn roads can cause



safety hazards and additional risk to vehicle maintenance. It is important to keep road repaving on schedule because delays cause additional wear to roads, making them more expensive to fix and maintain over longer periods of time.

Road improvement continues on a yearly basis as set by the Road Improvement Plan. Additional road projects are considered as urgent need arises. The roads for the 2020 Road Improvement Plan are currently

under consideration and will be determined by the end of 2019. Improved roads will reduce the likelihood of having additional maintenance costs to Township vehicles and equipment. Road projects are funded through a combination of the Highway Aid Fund and Capital Fund. Projected costs for this project include engineering costs.

Ongoing costs: \$1,000,000 per year.

Vehicle Replacement - \$518,000

Public Works maintains a fleet of vehicles for transporting supplies, snow plowing, and other road and park maintenance activities. The Department owns large and small dump trucks as well as pickup trucks that are used during regular activities. Each vehicle is replaced approximately every fifteen to twenty years. It is important that the Department of Public Works vehicles work when road repair, road maintenance, and snow removal are needed. Regularly replacing vehicles helps prevent unwanted downtime while also preventing excessive maintenance costs.

Vehicles are purchased on an ongoing basis. In 2020, one large dump truck and two pickup trucks with all necessary equipment will be purchased. The vehicles being replaced are twenty years old and incur significant maintenance costs. The new vehicles will save on that cost while allowing the mechanics to spend more time with other vehicles. The Township has applied for RDA grant funding for the trucks to be purchased in 2020. Those vehicles will otherwise be purchased using the Road Machinery Fund.

Ongoing costs: \$15,000 - \$235,000 per year.



Storm Sewer & Drains

Storm water management is an essential part of maintenance that helps prevent flooding and environmental hazards in the Township. These projects often align with road repaving. Several specific plans for storm water management are listed among the following projects, some of which have already begun. In addition to noted areas for construction, an ongoing allowance for maintenance is also required. The Township often finds areas of urgent need throughout the year, and an amount for such repairs is budgeted in the Capital Fund. Some of the projects listed include pipe replacements while others require more significant reconstruction and road maintenance. Storm water projects are typically funded through the Capital Fund.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Langhorne Gables/Adams Avenue	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 350,000
Richardson Avenue	175,000	-	-	-	-	175,000
Emergency Drainage Projects	250,000	250,000	250,000	250,000	250,000	1,250,000
Hillside Avenue	-	200,000	-	-	-	200,000
TOTAL	\$ 775,000	\$ 450,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,975,000

Langhorne Gables / Adams Avenue - \$350,000

Storm drainage improvement has been ongoing in the Langhorne Gables neighborhood since 2017. The next step is to install a new drainage system on several roads within the neighborhood. The project will include pipes to carry away water before roads are flooded. This project will help prevent flooding in the Langhorne Gables neighborhood. A buildup of storm water can cause hazards for motorists and pedestrians, damage the surface of the road, and undermine the foundation and integrity of the road, leading to further damage and safety hazards.

This project will occur in 2020. The pipes may require some maintenance over time, but net impact will be a decrease in spending as severe damage to the roads is prevented. The project will be funded through the Capital Fund. Projected costs for this project include engineering costs.

Richardson Avenue - \$175,000

Storm sewers will be added to Richardson Avenue to improve the drainage system. Pipes will also be installed to redirect drainage. Repaving around the installation will be required after the system is installed. The Richardson Avenue drainage will help prevent flooding of the roadway which causes damage to the road, undermines the road foundation, and creates safety hazards for motorists and pedestrians.

Construction will take place in 2020. Short-term maintenance needs for the drainage system will be minimal, and the improved drainage will reduce necessary repair costs for the road after a storm. The project will be funded through the Capital Fund. Projected costs for this project include engineering costs. This project is contingent upon available funds.



Emergency Drainage Projects - \$250,000

Despite the Township's best planning efforts, some drainage projects emerge as a result of significant weather conditions or infrastructure failure. This allocation allows the Township to address and resolve drainage emergencies as they evolve. In recent years with high rainfall and unstable weather conditions, combined with strict state regulations for storm water management, drainage needs have become an increasing infrastructure and CIP priority. Funds utilized are expected to reduce overall maintenance costs.

Ongoing costs: \$250,000 per year.

Transportation & Engineering

The Township undertakes several projects throughout the year geared toward improving the transportation infrastructure of the Middletown. These projects may include road construction at intersections, installing signals, adding sidewalks or crosswalks, and other projects aimed at allowing better movement of vehicles and pedestrians. Some of the capital projects for transportation are recommended by the Citizens' Traffic Commission. Additionally, the Township is responsible for ensuring that traffic signals are compliant with the permits from the Pennsylvania Department of Transportation (PennDOT) and that intersections are safe for commuters. While many traffic signal maintenance projects are ongoing operating costs, some larger projects are included in the Capital Plan and are funded through the Capital Fund and grants.

Projects	2020	2021	2022	2023	2024	Five-Year Total
Comprehensive Plan	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000
Quiet Zone Project	229,560	-	-	-	-	229,560
Swift Road/Woodbourne Road Traffic Improvements	552,500	-	-	-	-	552,500
Woodbourne Road/Langhorne-Yardley Road Engineering	300,000	-	-	-	-	300,000
Walkability Improvements	50,000	-	-	-	-	50,000
Handicap Ramp Program	225,000	225,000	225,000	225,000	200,000	1,100,000
Traffic Preemption Controllers & Signal Head Replacement	59,000	45,000	45,000	45,000	45,000	239,000
TOTAL	\$1,446,060	\$ 270,000	\$ 270,000	\$ 270,000	\$ 245,000	\$ 2,501,060

Comprehensive Plan - \$30,000

A Comprehensive Plan is a blueprint for the community that details its objectives for the future. Relying heavily on resident input, the Plan will detail specific goals and strategies to address needs and opportunities in transportation, recreation, housing and redevelopment, and sustainability. In 2018, Middletown Township was awarded a grant from the Delaware Valley Regional Planning Commission (DVRPC) to update its outdated Comprehensive Plan. Having a Comprehensive Plan is necessary to guide future decisions regarding development in the community. It also is beneficial when applying for certain grant opportunities.

The planning process began in early 2019, and the Comprehensive Plan will be completed in the spring of 2020. The impact to operating costs is expected to be minimal, but any new initiatives created by way of the Comprehensive Plan may incur an operating expense. The Township received a grant for \$67,000 from DVRPC, and the remaining balance will come from the Capital Fund.

Quiet Zone Project - \$229,560

In 2016, the Township was awarded a Multimodal Transportation Fund Grant from Pennsylvania to create a quiet zone at the Woodbourne Road train crossing. Typically, trains are required to sound their horns as they approach a crossing to notify motorists and pedestrians of their presence. Quiet zone projects reconfigure the crossing so that trains slow down as they approach and can ensure safety without the sound from the train. Several neighborhoods are located near the rail crossing, and the loud horn from trains can be disturbing at certain hours. The Township applied for and received this grant to make this quality-of-life improvement for residents.

Engineering for the project is expected to be completed in late 2019, and construction will occur in 2020. This project will have minimal impact on operating expenses. The Township received a grant for \$180,000, with the remaining Township match coming from the Capital Fund. Projected costs for this project include engineering costs.



Swift Road / Woodbourne Road - \$552,000

The Township will install a traffic signal at the intersection of Swift Road and North Woodbourne Road to ease the flow of traffic. Included in the project will be a dedicated left turn lane heading in both directions along Woodbourne Road. After residents raised concerns about the safety of the intersection, the Township traffic engineer completed a traffic study to determine a viable solution. Adding a signal and/or left turn lanes would reduce some of the traffic buildup during rush hour as well as prevent some accidents and near misses from people trying to make their way through the intersection.

The intersection improvements were designed in 2019 and will be constructed in 2020. The installation of turn lanes will have no significant impact operating expenses. Maintenance costs and minimal electric costs would be the responsibility of the Township. The turn lanes will be funded by the Capital Fund or Highway Aid Fund as part of the Road Improvement Program. Projected costs for this project include engineering costs.

The traffic signal portion of the project is contingent upon available funds in the Capital Fund.

Woodbourne Road / Langhorne-Yardley Road Engineering - \$300,000

The intersection of Langhorne-Yardley Road and Woodbourne Road requires significant improvement. A left turn lane will be constructed in each direction at the intersection to allow traffic to pass through more efficiently. Additional improvements are also planned for the intersection of Langhorne-Yardley Road and Bridgetown Pike, and engineering is underway for that portion of the project as well.



Cars waiting to make left turns at this intersection frequently obstruct other vehicles traveling straight ahead. This causes traffic delays

and increases the likelihood of an accident as motorists try to pass one another. Adding the turn lanes will allow for safer, more efficient traffic flow at this intersection. The intersection at Bridgetown Pike presents similar challenges, and improving the intersection will aid the flow of traffic and increase visibility for turning vehicles.

The state has already allocated funds through the Transportation Improvement Program (TIP) for Woodbourne Road, and the Township worked with the State to approve the use of these funds for this project. Engineer design began in 2016 and will continue through 2020. The improvements at Bridgetown Pike may remove the need for a traffic signal, which would reduce maintenance costs. The improvements at Woodbourne Road will have minimal impact on future costs. Engineering costs will be funded by the Capital Fund. The future construction will be funded through the TIP.

Walkability Improvements - \$50,000

Middletown Township seeks to improve pedestrian access to Middletown Community Park. There are currently several crosswalks that lead from neighborhoods on Langhorne-Yardley Road into the Park. The full project will include handicap ramps, flashing pedestrian indicators, improved signage, and sidewalk linkages. While there are currently several crosswalks leading into the Park, some of them are difficult to access due to a lack of sidewalk connectivity, and some of them provide difficult crossing options for pedestrians. These improvements will ensure that families in the area can walk to the park safely and easily.

Some improvements will be completed by the end of 2019, and the bulk of the construction will take place in 2020. Maintenance of the new walkways, ramps, and flashing pedestrian indicators will be the Township's responsibility. The Township has applied for a Multimodal grant from PennDOT to fund the program. The Township's match requirement would come from the Capital Fund. Without the grant, the Capital Fund will be used to complete a phase of the improvements. Projected costs for this project include engineering costs.

Handicap Ramp Program - \$225,000

Public facilities and sidewalks throughout the Township have handicap ramps to allow access to all residents. Many of these ramps are aging, and some are damaged or have fallen out of compliance with the Americans with Disabilities Act (ADA). These ramps will be repaired or replaced. Residents with disabilities may depend on these ramps for access to different locations in the community, and deficient ramps can impose an unnecessary challenge or even create safety risks. Ramps that are no longer ADA compliant can also create liability risks to the Township. Repairing and replacing these ramps protects both the Township and residents.

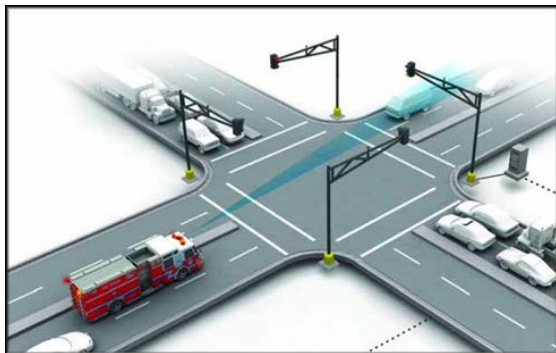


Ramp replacement is ongoing and occurs on a yearly basis. Ramps that are in good condition and meeting the most current standards of the ADA will both require less maintenance and reduce potential future liability costs. The project will be funded through the Capital Fund. Projected costs for this project include engineering costs.

Ongoing costs: \$225,000 per year.

Traffic Preemption Controllers & Signal Head Replacement - \$59,000

Middletown will begin replacing the preemption control units and signal heads for traffic signals throughout the Township. Both the controllers and signal heads are older models that are no longer manufactured and do not meet current transportation standards. The controllers used in most Township traffic signals are no longer being manufactured, meaning that replacement parts cannot be found if they fail. Purchasing newer models will help prevent failures while ensuring that they can be serviced should any issues arise. The new signal heads will be brought up to current standards with reflective backboards, making them more visible to motorists.



Replacements will be purchased and installed in 2020 and continue on an ongoing basis. Maintenance costs will be reduced. The Township will apply for grant funding to purchase the controllers and signal heads. If the grant is not secured, this project will be contingent upon available funds in the Capital Fund.

Ongoing costs: \$45,000 per year.