

2018 - 2022 Capital Improvement Plan



Township of
FERGUSON
Pennsylvania

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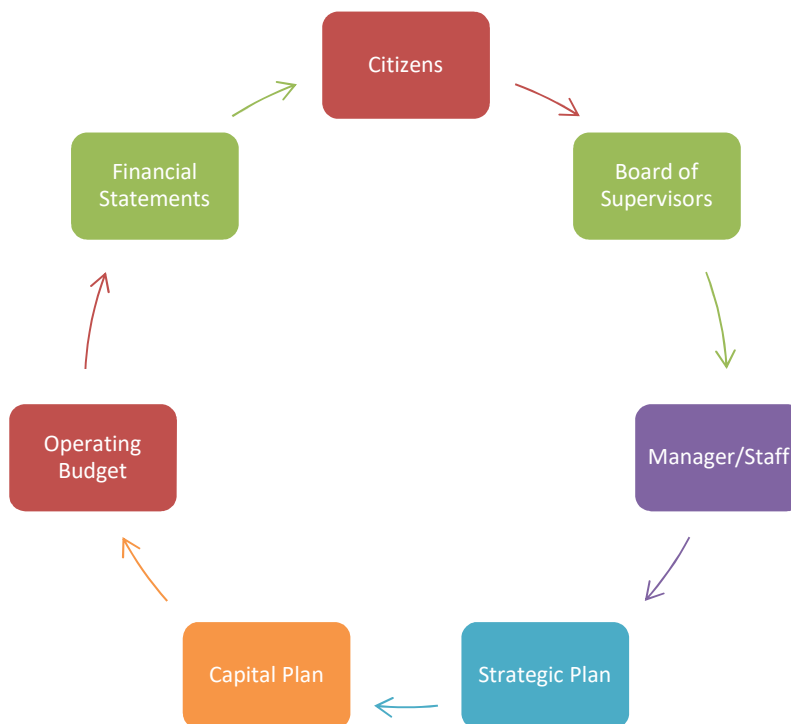
Chapter 1: Introduction

Who should read this document?

The Township's Capital Improvement Plan (CIP) is a financial guide for citizens, staff and the Board of Supervisors. The purpose of this document is to communicate the initiatives planned in the next five years. This is a financial plan, rather than official budget. It is used to provide financial information for management to make decisions related to sustainability, future projects and revenues. The plan accounts for the Township's anticipated revenue from various sources such as income taxes, property taxes and intergovernmental revenue. It also reflects how these resources will be used. The reader will also find Township background information, the Vision Statement, the Mission Statement and Values Statement.



The financial cycle including the Capital Improvement Plan shown below depicts the various stages of the financial cycle for the township.



Strategic Planning



Strategic planning is an organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment. It is a disciplined effort that produces fundamental decisions and actions that shape and guide what an organization is, who it serves, what it does, and why it does it, with a focus on the future. Effective strategic planning articulates not only where an

organization is going and the actions needed to make progress, but also how it will know if it is successful. Without planning, the township would be spinning in circles with no clear idea of how to serve the public effectively.

The Township's Strategic Plan is updated every three to five years. Given the five-year forecast that the CIP offers, the term of the Strategic Plan fits well with the goals of the Township. Given the rapid changes affecting society as a whole and service delivery demands, attempting to plan beyond five years is difficult at best and subject to substantial changes and risks. The Strategic Plan is an integral part of the CIP and provides important guidance for funding of township goals. Components of the Strategic Plan are incorporated throughout this document.

The strategic plan provides long-term direction defined by the Elected Officials and the CIP interfaces directly with the financial needs originated by the Strategic Plan.

Ferguson Township updated its Strategic plan in 2016 to reflect the current priorities of the township stakeholders. This update is included throughout the document.

How does the Strategic Plan guide the preparation of the CIP?

Ultimately, the CIP is used to focus funding towards the goals of the Strategic Plan. Without this close relationship between the strategic plan and the CIP, it is highly likely that taxpayer resources may be used for short-term needs rather than in conjunction with a long-term strategy.

The Strategic Plan hierarchy elements tie to the CIP in several ways.

-) **Goals** are statements of vision identified by staff and elected officials as desirable outcomes for the Township to reach.
-) **Objectives** are measurable, definable achievements that must be attained prior to accomplishing or advancing a goal.
-) **Action Steps** are specific, operable processes that are undertaken to achieve an objective. While goals are not necessarily attainable, objectives and action steps inherently are. The purpose of this Strategic Plan is to define these elements in an attempt to marry *vision* and *action* with the ultimate goal of improving the quality of life for those who live, work, study and visit Ferguson Township

-) Beginning in 2016, the current Strategic Plan has been revised. The following goals guide the preparation of the CIP:

1) Financial Stability

- a. Make realistic estimates of program costs. (Staff)
- b. Regularly compare the cost of providing services in-house with costs from private contractors, other municipalities, other government agencies, and costs of providing services regionally. (Staff)
- c. Adjust revenues (taxes, fees, etc.) to adequately fund Township programs and needs. (Staff proposes, the Board initiates)

2) Economic Development

- a. Establish an economic development advisory group (with economic development expertise).
- b. Consider the employment of an economic development director (full-time, part-time, or a contracted service). This individual or contractor would be responsible to assist and support existing businesses to help them prosper and expand in Ferguson Township. He/she would be the Township's liaison with the business development community. He/she would develop an inventory of vacant commercial and industrial sites and would make that information available to interested parties. He/she would identify and pursue programs and grants to support economic development in Ferguson and would have responsibility for managing the Community Development Block Grant Program. (Board to initiate, staff to implement)

3) Growth Management

- a. Identify and complete (develop) plans for specific small areas. (Board, Staff, Planning Commission)
- b. Develop a future land use plan (Comprehensive Plan). (Staff, Planning Commission, Board)
- c. Develop a Township housing plan to provide for low and moderately priced housing in the Township (workforce housing). (Staff, Regional input, possible ad hoc advisory group)

4) Environmental Stewardship

- a. Identify and use existing tools to preserve the environment - Chesapeake Bay Tributary strategy, National Pollutant Discharge Elimination System, source water protection, conservation easements, climate action plans, referendums, agricultural conservation easements, etc. (Board, Staff)
- b. Make certain that land development regulations and development plans are consistent with environmental values (Staff, Planning Commission, Board)
- c. Identify and preserve natural resources and environmentally significant areas (Staff, Board, Planning Commission, possible ad hoc advisory group)
- d. Develop and adhere to green policy for buildings, vehicles, and operations (Staff, consultants)
- e. Update the Recreation, Parks, and Open Space Plan with a specific emphasis on green infrastructure and sustainable parkland development

5) Best Management Practices for Operations

- a. Ensure adequate staffing and resources necessary to carry out Township services and programs (Staff, Board)
- b. Ensure proper training and professional development (Staff, Board)
- c. Ensure that operational practices are fiscally responsible (Staff)

6) Increase Participatory Government

- a. Utilize both ad hoc and standing citizen advisory boards with subject matter experts from the Township and the region to address issues related to parkland development and other matters of community interest.”
- b. Fully utilize two-way communication and online platforms used to communicate (Staff)

7) Promotion of Clean Renewable Energy

- a. Assess the Township for opportunities for renewable energy (Staff, possible advisory group)
- b. Practice and promote energy conservation (Staff, Board)
- c. Establish zoning incentives to encourage renewable energy and energy conservation (Staff, Board, Planning Commission, possible ad hoc advisory group)
- d. Establish an advisory group on renewable energy (Staff, Board)

8) Promotion of Municipal Identity

- a. Develop our Sense of Place by developing a vibrant Town Center, preserving our agricultural heritage, and promoting the features that make the Township unique. (Staff)
- b. Develop a Marketing Strategy (possible advisory group)
- c. Establish and promote community events with Township help/promotion (farmer's markets, flea markets, etc.)

9) Partnerships and Regional Thinking

- a. Identify non-profits, businesses, and community groups for input on a variety of issues
- b. Work towards regional cooperation on issues that affect the entire Centre Region
- c. Increase financial stability through partnerships
- d. Monitor partnerships to ensure they continue to be beneficial

What is Capital Planning and how does it differ from Strategic Planning?

Simply put, capital planning is a component of the budgeting process. Capital items are generally considered to be one-time long term investments (rather than ongoing expenses) in equipment or fixed assets that are costly. Such assets improve productivity, reduce operating costs, or improve service delivery. Typically, there is an expected return on the investment for the cost to make financial sense.

Whereas the Strategic Plan identifies the desired future outcomes of the Township goals and the objectives, the Capital Plan puts financial resources to those objectives in order to fulfill those goals. While some outcomes are purely non-financial, the vast majority of outcomes require investment in order to see them to completion. Capital Planning attempts to focus

financial resources to specific outcomes. This is the basis of the Capital Improvement Plan (CIP). This plan is updated annually in order to maintain its relevance and to prevent it from getting stale.

What is the Capital Improvement Plan (CIP)?

The CIP is a five-year plan forecasting the financial requirements in order to fulfill capital needs of the township. In order to provide an accurate forecast of the township in its entirety, operational costs are included as part of the summary sections. These are not detailed like the capital components.

The township CIP also includes projected staffing changes since personnel costs make up over 45% of the General Fund budget and have a long-term impact on the finances of the township.

Defining what is to be included in the CIP is critical to narrowing down the amount of items to be considered during the creation and reviews of the plan. ***The township has defined a capital asset as one with an initial cost exceeding \$2,500 each and will have a life span of longer than one year.***

Why do we need a Capital Improvement Plan?

Governments are tasked with providing services to the public in a cost efficient manner. Because public funds are used, some measure of accountability of taxpayer funds is required. The CIP serves as a means to accomplish this goal by advance planning for the construction and development of the township's infrastructure asset base. The Administrative Code requires the preparation of the Capital Improvement Plan on an annual basis. In 1991, the Township Board of Supervisors adopted the first modern Capital Improvement Program Budget.

How does the Township Mission, Vision and Values guide the preparation of the CIP?

2016 Ferguson Township Board of Supervisors



Chairman
Steve Miller
Supervisor-at-Large



Vice Chairman
Peter Buckland
Ward I



Laura Dininni
Ward II



Janet Whitaker
Supervisor-at-Large



Rita Graef
Ward III

The staff of Ferguson Township is guided in its decision-making by several documents, some of which have been outlined in detail here. The township's ordinances, resolutions, budgets, comprehensive plan, and the CIP are all examples of guiding documents that staff utilize on a daily basis to help allocate resources, capital and otherwise,

to provide effective services. However, with all of these supporting documents several questions remain.

How do we know our actions today are leading towards where residents want the township to be in the coming years? How can we be sure that our resource allocation is advancing the township's mission and vision? How are the decisions we make on a staff level related to the goals of our elected officials?

The Mission and Vision Statements help guide staff in determining the direction of the township operations. The Mission Statement defines the general purpose of the township. The Vision Statement defines the general philosophy of the township. The Values guide staff in appropriate behavior as township employees. Together, the Mission, Vision and Values determine what is important to the township and how staff should allocate time and resources.

Our Mission

It is Ferguson Township's mission to provide efficient, cost effective, professional services to our residents in a fair, cooperative, ethical and honest manner. The Township will endeavor to manage its resources allowing planned, sustainable growth while preserving the quality of life and its unique characteristics.

Our Vision

The Township will strive to appropriate staff and resources to maintain the infrastructure in acceptable condition, provide exemplary service, keep Township operations financially stable and keep pace with technology. As a result, the Township can continue to be a leader and model for the Centre Region and other Home Rule municipalities.

The Township is considered a 'Best Place to Live' due to the high quality of life created in part through a sense of place achieved through the development of a vital town center, a strong diversified community, an effective transportation system, a rural/small town atmosphere and the location and availability of open space. The Township will continue to preserve environmentally sensitive areas.

We Value...

Effective, efficient, professionalism in delivering services to our residents.

Residents, elected and appointed officials expect the highest quality service delivery from Township staff. It is our duty to meet and exceed those expectations in our daily work.

Preserving the unique character of the Township. The Township proudly boasts a diverse community of all ages and professions including farmers, scholars, small and large business employers and employees, professionals, and students. Each give the area a character all its own. It is our responsibility to ensure that policies and service delivery are directed at maintaining that character for generations to come.

A well-maintained and safe environment. Every resident and guest deserves to live, work, study, and recreate in a high quality environment. Therefore, it is our responsibility to properly maintain and provide for the safety of our community's neighborhoods, streets, parks and common areas.

Managing our resources wisely. It is recognized that resources, including tax revenue, public utilities such as water and sewer, and services such as police and fire, are finite and must be allocated in the most efficient manner. It is our responsibility to continuously review and refine our practices to improve the management of public resources to provide the highest quality service delivery.

Collaborating with our neighboring municipalities to provide cost effective services. The Centre Region is home to one of the premier and oldest Council of Governments in the Commonwealth. For decades, the municipalities that comprise the Centre Region have recognized the benefits of regional cooperation to improve the effectiveness and efficiency of service delivery. It is our responsibility to maintain our commitment to the Centre Region Council of Governments and neighboring municipalities for programs where regional cooperation maximizes our return on investment.

Ethical and honest behavior. As elected officials and employees of the Township, every official, employee and service provider to the Township is directly accountable to conduct themselves in an ethical and honest manner. It is

our responsibility to ensure that all who perform work for the Township operate with the highest standards of ethical and honest behavior.

Official Township Map



Chapter 2: Summary

Plan Summary

This section provides an overview of fund balances, revenues and expenditures for all funds except pension funds. The overview breaks out capital expenditures from operations. Operational costs are included in this section in an effort to project the effects on fund balances over the term of the plan. This is important because without sufficient financial resources and fund balances, the plan would not be feasible.

For the five years ending in 2022, the Township proposes spending **\$106.0 million (including \$23.6 million in interfunds transfers) \$82.4 million net** for all governmental funds. Since interfund transfers are internal transfers between funds, they can be deducted from the total in summary reports. Government funds do not include pension trust funds nor the Tom Tudek Memorial Trust Fund (even though the township provides funding for park projects).

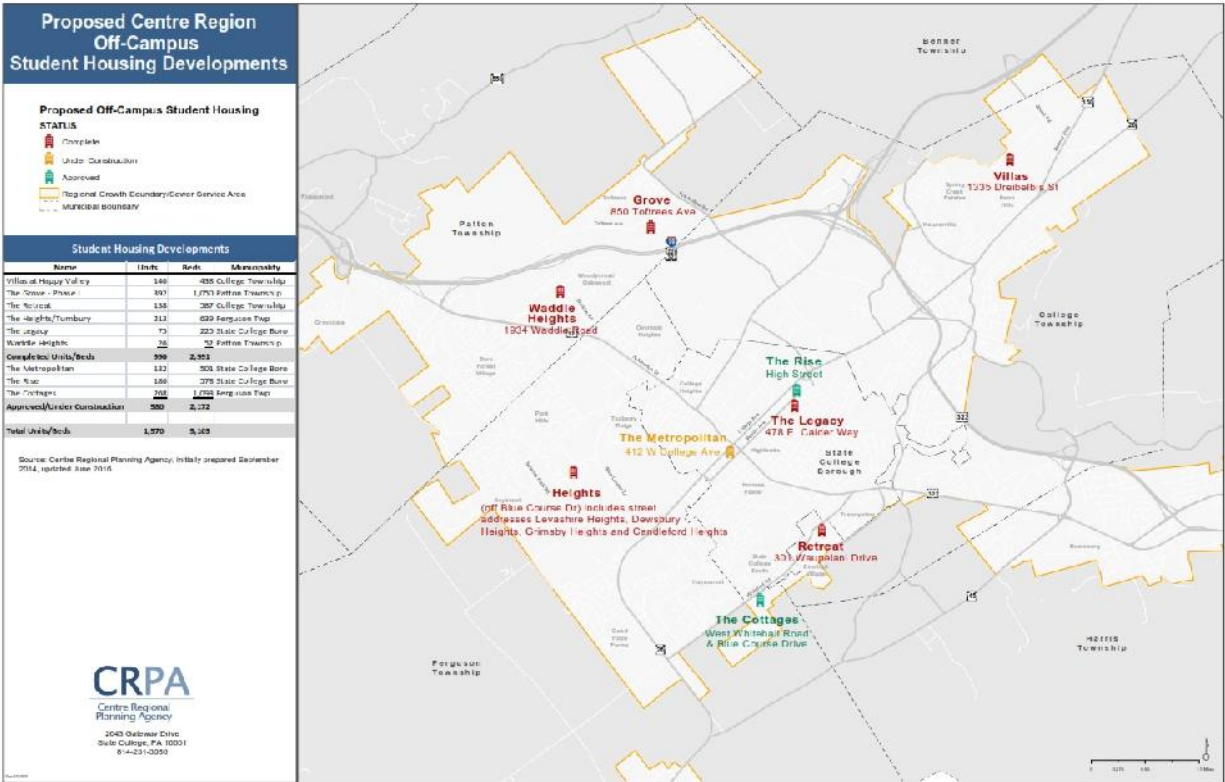
Please be aware that for budgeting purposes, amounts are estimated and rounded to the nearest \$100 where possible. It is not possible to obtain exact amounts over 12 months in advance. Vendor pricing is generally only valid for 60 or 90 days. Beyond that, amounts are only estimates of expected pricing.

Demographics



The township encompasses an area of approximately 50 square miles and is home to nearly 19,000 residents. Several high-tech industries have found a home in Ferguson Township over the years including AccuWeather, Minitab, Sound Technology, Videon, and Avail Technologies . The township is also home to major research facilities of The Pennsylvania State University, one of the nation's premier agricultural and engineering institutions. The demographics have a large impact on the tax revenues collected and the cost of operations. Without a growing community, township revenues would flatten while operating costs

would continue to increase leading to a strain on township resources. By smartly managing growth, the township will continue to operate soundly for many years to come.



Since tax revenues are driven by population and age, identifying the demographics and trends provides important data for revenue projections. The following tables depict the township population estimates and age groups.

Population Estimates	2018	2019	2020	2021	2022
Based on Centre Regional Planning Agency Data	18,790	18,978	19,168	19,360	19,554

The demographic breakdown, according to American Community Survey estimates for 2010-2015, the most recent available for ferguson township, the population breakdown by age is represented by the following table. According to the data, 67% of the township population is of working age an increase of 4% from a year ago

DEMOGRAPHIC TABLE 2017-2018					
Age/Sex %	Less than 5	5-19	20-59	60-64	65+
Male	2.1%	7.3%	32.1%	1.9%	6.6%
Female	2.4%	8.9%	28.8%	2.4%	7.6%
Total	4.5%	16.2%	60.9%	4.3%	14.2%

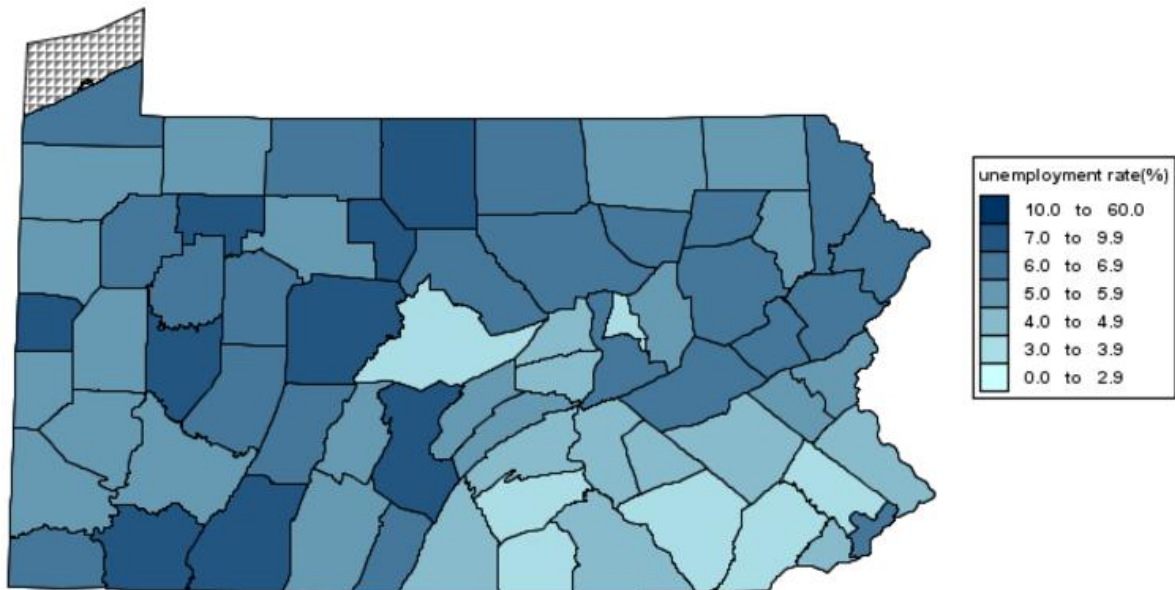
Subject	Ferguson township, Centre County, Pennsylvania					
	Total		Male		Female	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total population	18,238	+/-31	9,407	+/-512	8,831	+/-509
AGE						
Under 5 years	4.5%	+/-1.0	4.2%	+/-1.4	4.8%	+/-1.5
5 to 9 years	6.5%	+/-1.6	6.6%	+/-1.8	6.3%	+/-2.7
10 to 14 years	5.0%	+/-1.0	4.0%	+/-1.1	6.0%	+/-1.5
15 to 19 years	4.7%	+/-1.1	4.0%	+/-1.5	5.5%	+/-1.8
20 to 24 years	14.3%	+/-2.8	15.7%	+/-3.9	12.8%	+/-4.6
25 to 29 years	8.7%	+/-1.4	9.0%	+/-2.4	8.3%	+/-2.0
30 to 34 years	6.1%	+/-1.1	7.2%	+/-1.7	4.9%	+/-1.5
35 to 39 years	6.7%	+/-1.6	7.1%	+/-1.8	6.3%	+/-2.0
40 to 44 years	7.2%	+/-1.5	6.3%	+/-2.2	8.1%	+/-1.9
45 to 49 years	6.0%	+/-1.1	6.1%	+/-1.5	5.8%	+/-1.5
50 to 54 years	7.0%	+/-1.5	7.8%	+/-2.0	6.2%	+/-1.7
55 to 59 years	5.1%	+/-1.3	5.0%	+/-1.5	5.2%	+/-1.7
60 to 64 years	4.3%	+/-1.1	3.7%	+/-1.3	4.8%	+/-1.4
65 to 69 years	4.2%	+/-1.2	4.4%	+/-1.6	4.0%	+/-1.2
70 to 74 years	3.5%	+/-0.8	2.7%	+/-1.1	4.4%	+/-1.3
75 to 79 years	3.1%	+/-0.9	3.4%	+/-1.2	2.9%	+/-1.2
80 to 84 years	2.0%	+/-0.8	1.8%	+/-0.9	2.2%	+/-1.1
85 years and over	1.2%	+/-0.6	0.8%	+/-0.5	1.7%	+/-1.0
SELECTED AGE CATEGORIES						
5 to 14 years	11.4%	+/-1.9	10.6%	+/-2.1	12.3%	+/-3.3
15 to 17 years	3.3%	+/-0.9	2.5%	+/-1.1	4.2%	+/-1.5
18 to 24 years	15.7%	+/-2.8	17.2%	+/-4.0	14.0%	+/-4.8
15 to 44 years	47.6%	+/-2.5	49.4%	+/-3.8	45.7%	+/-4.1
16 years and over	83.1%	+/-1.8	84.6%	+/-2.0	81.6%	+/-3.5
18 years and over	80.8%	+/-1.7	82.7%	+/-2.1	78.7%	+/-3.3
60 years and over	18.4%	+/-1.6	16.9%	+/-2.1	20.0%	+/-2.4
62 years and over	16.6%	+/-1.5	15.0%	+/-1.9	18.2%	+/-2.3
65 years and over	14.1%	+/-1.2	13.1%	+/-1.8	15.1%	+/-1.9
75 years and over	6.4%	+/-1.2	6.0%	+/-1.5	6.7%	+/-1.7
SUMMARY INDICATORS						
Median age (years)	35.2	+/-1.6	34.5	+/-3.2	36.2	+/-3.5
Sex ratio (males per 100 females)	106.5	+/-12.0	(X)	(X)	(X)	(X)
Age dependency ratio	50.0	+/-4.7	(X)	(X)	(X)	(X)
Old-age dependency ratio	21.1	+/-2.3	(X)	(X)	(X)	(X)
Child dependency ratio	28.9	+/-3.3	(X)	(X)	(X)	(X)
PERCENT IMPUTED						
Sex	0.3%	(X)	(X)	(X)	(X)	(X)
Age	2.1%	(X)	(X)	(X)	(X)	(X)

From the 2011-2015 American Community Survey 5-Year Estimates

Employment Data

Following is a current map, from the Bureau of Labor Statistics, as of March 2017 related to PA county unemployment. As you can see that Centre County has extremely low unemployment rates. It has been historically accurate that employment in the county has exceeded most of the country unrelated to national economics

Unemployment rates by county, not seasonally adjusted, Pennsylvania March 2017



Centre County

3.7

Fund Groups Defined

Governments use Fund Accounting, which is different from for-profit accounting in several ways. Most importantly, governments are accountable to the taxpayers and have public service goals rather than the profit motive. With this in mind, governments, including the township, create funds to separate assets for specific purposes. This improves accountability and removes risk that funds are not comingled with other general funds. To simplify the reporting, funds are classified into Fund Groups, which summarize the individual funds by type. These are described below:

The General Fund is the main operating fund of the township. The majority of revenues are deposited into this fund and the majority of expenditures are made out of this fund. This includes interfund transfers to other funds, making up a large portion of revenue in those particular funds.

The General Obligation Fund is the payer fund of the debt service for the township. This includes any direct bond or loan payments. Indirect payments, such as the COG park and pools debt are not included in the General Obligation Fund. These payments are made out of the General Fund and the Regional Capital Recreation Projects Fund.

The Capital Projects Funds are reserved for projects restricted for specific purposes. Some funds have external restrictions (restrictions by outside parties), such as the Pine Grove Mills Street Light Fund and the Piney Ridge Fund (closed in 2017), while others have Board of Supervisors restrictions, such as the Capital Reserve fund, the Regional Capital Recreation Projects Fund and the Transportation Improvement Fund.

The Special Revenue Funds are those funds that have a special assessment to obtain revenue rather than taxes. The township adds a separate real estate assessment for street lighting and fire hydrants, while the state administers a fuel tax to help local governments maintain their roads. This requires a separate Liquid Fuels Fund.

Fund and Department Relationships

The township follows the PA State Chart of Accounts format. This format is recommended by the state. The state explains the reasoning below:

The account numbers and descriptions of accounts used in the DCED form DCED-CLGS-30: Annual Audit and Financial Report, are based on this Chart of Accounts. These account numbers and descriptions also are used in the Department of Transportation Form (DOT) MS-903, Treasurer Account Book, Form MS-965, Actual Use Report of State Funds, and Form MS-991, County Liquid Fuels Tax Fund Report. Both DCED and the DOT encourage the use of accounting systems based on the Chart of Accounts presented in this publication

The PA state chart of accounts dictates our fund and department layout. With this in mind, the township assigns specific state funds and departments to specific individuals.

The township manager and department heads are responsible for all the township activities and funds. This section describes the relationships of the departments with the funds.

It is best to organize the departments by the responsible person rather than the reverse. As the organization chart depicts, the senior staff is shown here



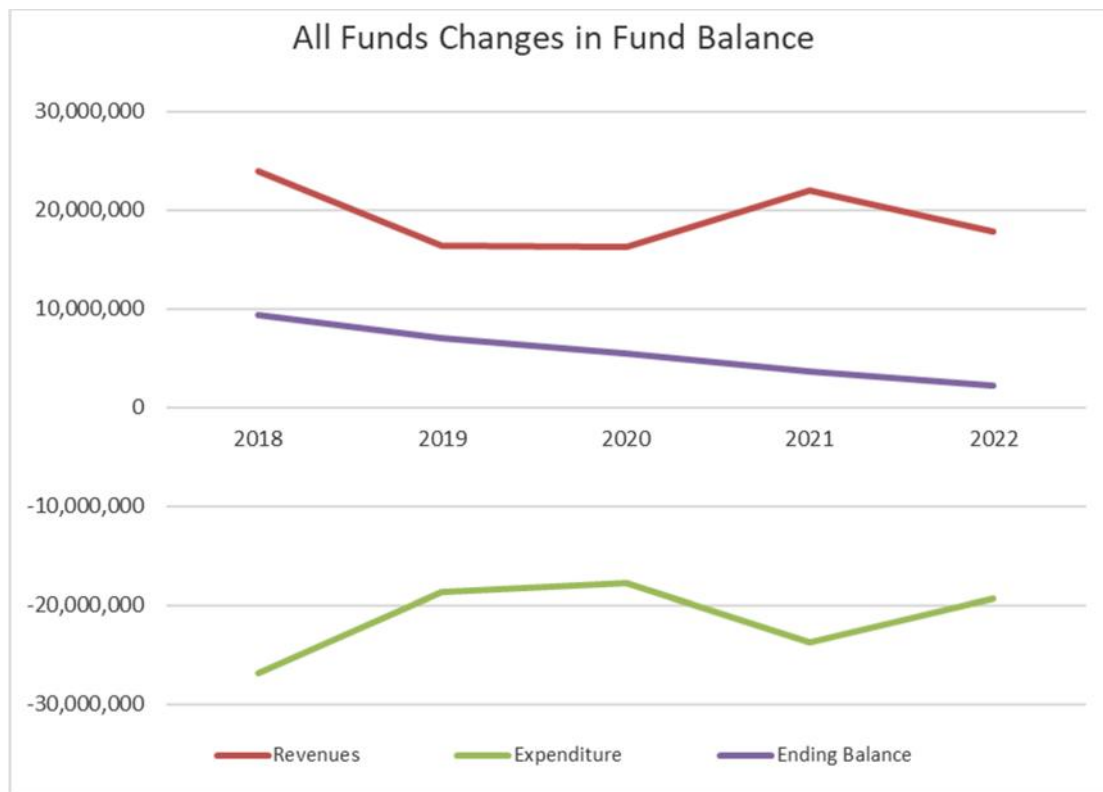
The responsible departments heads are Administration, Finance & Tax, Public Works & Engineering, Police, and Planning Zoning. These individuals are responsible for all the “departments” within the entire budget and funds.

The following table breaks down the responsibilities by the department heads

Responsible Department	Funds	Departments
Township Manager	All	Responsible for Final Document, Parks & Rec, Tudek Park
Asst Township Manager	GF, CR	Assists Manager in review, responsible for IT
Finance Director	All	Finance, Tax, COG, Salaries & Benefits, Insurance, Pension plans
Police Chief	GF, CR	Police
Public Works Director	GF, CR, TIF, PR,	Engineering, Public Works, Arborist
Planning & Zoning Director	GF, CR	Planning & Zoning

Fund Balances

Over the years, the township has maintained sound fund balances for operations and present and future capital expenditures. Oftentimes the township uses cash reserves to purchase equipment and long-term investments rather than using debt. This conservative style has reduced financial risk considerably and has helped the township through economic downturns that has severely hurt other governmental organizations.



All Funds	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	12,346,532	9,381,075	7,049,592	5,508,746	3,679,574	12,346,532
Revenues	23,913,172	16,342,873	16,285,913	21,913,722	17,801,434	96,257,113
Expenditure	-26,878,630	-18,674,356	-17,826,759	-23,742,894	-19,301,499	-106,424,137
Ending Balance	9,381,075	7,049,592	5,508,746	3,679,574	2,179,508	2,179,508
Fund Balance % of Expenditures	35%	38%	29%	21%	11%	

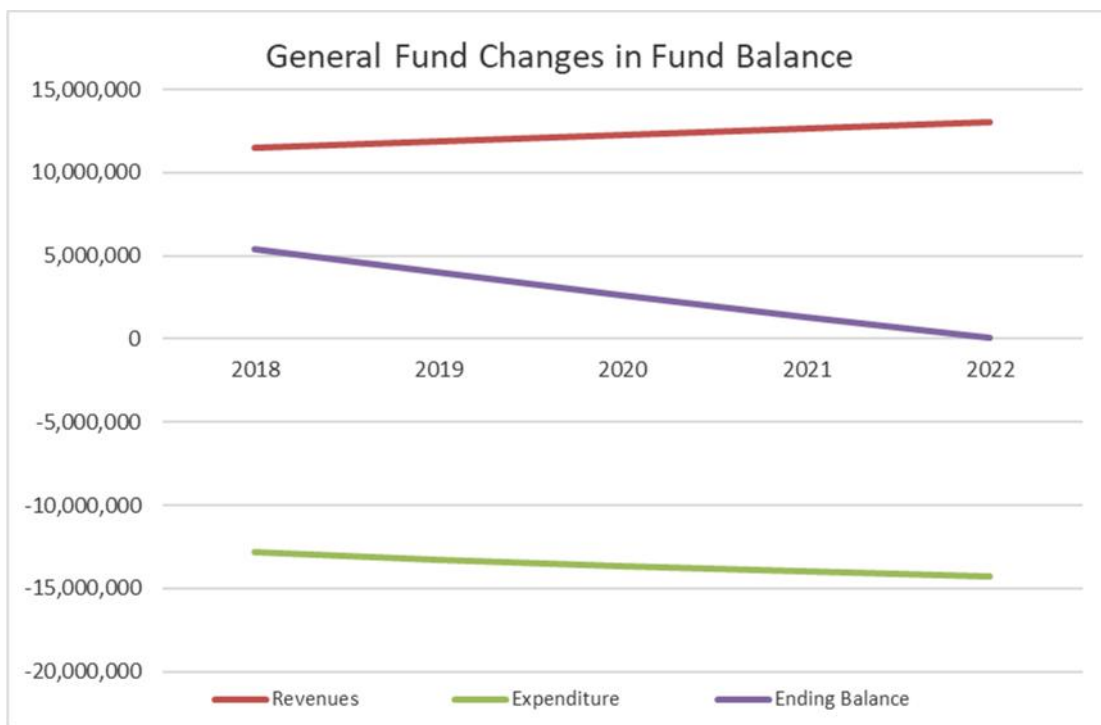
Sinking Funds

The township uses "sinking funds" to accumulate money for various specific needs. These sinking funds are bank accounts with funding, rather than just assignments of funds. As such, the money is segregated from other monies of the township much like having a designated fund. these sinking funds are subsets of the overall fund in which they are located.

According to the Financial Dictionary, a sinking fund is defined as a fund or account into which a person or company deposits money on a regular basis in order to repay some debt or other liability that will come due in the future. For example, if one has a loan with a balloon maturity of seven years, one may put money into a sinking fund for seven years in order to be ready to pay off the principal when it comes due. Some bonds have sinking fund provisions, requiring the issuer to put money aside to repay bondholders at maturity.

Such sinking funds include the Building Equipment Replacement Fund, the Public Works Equipment Replacement Fund, the Police Vehicle Equipment Fund, and the Wellness Fund.

General Fund



General Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	6,749,516	5,423,486	4,031,320	2,638,906	1,284,367	6,749,516
Revenues	11,518,000	11,883,599	12,258,338	12,642,445	13,036,156	61,338,538
Expenditure	-12,844,030	-13,275,766	-13,650,752	-13,996,985	-14,263,296	-68,030,827
Ending Balance	5,423,486	4,031,320	2,638,906	1,284,367	57,227	57,227
Fund Balance % of Expenditures	42%	30%	20%	9%	0%	

Capital Projects Funds

Ag Preservation Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	45,157	60,157	45,157	60,157	75,157	45,157
Revenues	15,000	15,000	15,000	15,000	15,000	75,000
Expenditure	0	-30,000	0	0	0	-30,000
Ending Balance	60,157	45,157	60,157	75,157	90,157	90,157
Capital Reserve Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	589,234	385,034	180,894	6,224	-195,316	589,234
Revenues	4,987,600	1,509,600	1,209,600	3,709,600	1,444,600	12,861,000
Expenditure	-5,191,800	-1,713,740	-1,384,270	-3,911,140	-1,107,250	-13,308,200
Ending Balance	385,034	180,894	6,224	-195,316	142,034	142,034
Reg Cap Rec Projects Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	1,457,480	1,350,480	1,242,480	1,132,480	1,019,480	1,457,480
Revenues	3,000	3,000	3,000	3,000	3,000	15,000
Expenditure	-110,000	-111,000	-113,000	-116,000	-119,000	-569,000
Ending Balance	1,350,480	1,242,480	1,132,480	1,019,480	903,480	903,480
Transportation Imp Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	3,019,227	1,645,127	1,033,827	1,186,827	1,050,527	3,019,227
Revenues	2,128,700	1,271,700	1,285,000	1,298,700	1,312,700	7,296,800
Expenditure	-3,502,800	-1,883,000	-1,132,000	-1,435,000	-1,746,000	-9,698,800
Ending Balance	1,645,127	1,033,827	1,186,827	1,050,527	617,227	617,227
PGM Streetlight Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	21,356	21,569	21,783	21,999	22,217	21,356
Revenues	213	214	216	218	219	1,080
Expenditure	0	0	0	0	0	0
Ending Balance	21,569	21,783	21,999	22,217	22,436	22,436
Park Improvement Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	97,516	98,055	98,594	99,133	99,672	97,516
Revenues	539	539	539	539	539	2,695
Expenditure	0	0	0	0	0	0
Ending Balance	98,055	98,594	99,133	99,672	100,211	100,211

Special Revenue Funds

Streetlight Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	-2,959	-1,959	-959	-9	839	-2,959
Revenues	21,000	22,000	23,000	24,000	25,000	115,000
Expenditure	-20,000	-21,000	-22,050	-23,153	-24,310	-110,513
Ending Balance	-1,959	-959	-9	839	1,528	1,528
Hydrant Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	212	1,212	2,462	3,875	4,358	212
Revenues	36,000	38,000	40,000	41,000	41,000	196,000
Expenditure	-35,000	-36,750	-38,588	-40,517	-42,543	-193,397
Ending Balance	1,212	2,462	3,875	4,358	2,815	2,815
Liquid Fuels Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	367,151	395,271	391,391	356,511	315,631	367,151
Revenues	635,120	641,120	647,120	653,120	659,120	3,235,600
Expenditure	-607,000	-645,000	-682,000	-694,000	-735,000	-3,363,000
Ending Balance	395,271	391,391	356,511	315,631	239,751	239,751

General Obligation Fund

General Obligation Fund	2018	2019	2020	2021	2022	TOTAL
Beginning Balance	2,642	2,642	2,642	2,642	2,642	2,642
Revenues	4,568,000	958,100	804,100	3,526,100	1,264,100	11,120,400
Expenditures	-4,568,000	-958,100	-804,100	-3,526,100	-1,264,100	-11,120,400
Ending Balance	2,642	2,642	2,642	2,642	2,642	2,642

Chapter 3: Revenue Details

Revenue Projections

Township revenues are made up of tax collections, payments in-lieu of taxes, grant receipts, loan proceeds, permitting and license fees, fines, departmental earnings, interest and other miscellaneous receipts. Overall, the revenue changes are a combination these items and are represented in the table below

The Liquid Fuels fund includes a 1% annual increase in revenue growth. The Hydrant and Street Light Funds revenues are adjusted in accordance with expenditures to maintain a positive fund balance, taking into consideration the expenditures out of those funds.

Beginning in 2018, the Piney Ridge Fund has been closed and removed from the report.

Fund Group	2018	2019	2020	2021	2022	TOTAL
General Fund	11,518,000	11,883,599	12,258,338	12,642,445	13,036,156	61,338,538
Capital Projects Funds	7,135,052	2,800,054	2,513,355	5,027,057	2,776,058	20,251,575
Special Revenue Funds	692,120	701,120	710,120	718,120	725,120	3,546,600
General Obligation Fund	4,568,000	958,100	804,100	3,526,100	1,264,100	11,120,400
Total	23,913,172	16,342,873	16,285,913	21,913,722	17,801,434	96,257,113
Group change %	42.2%	-31.7%	-0.3%	34.6%	-18.8%	
General Fund change %	0.7%	3.2%	3.2%	3.1%	3.1%	
Capital Projects Funds	2018	2019	2020	2021	2022	TOTAL
Ag Preservation	15,000	15,000	15,000	15,000	15,000	75,000
Capital Reserve	4,987,600	1,509,600	1,209,600	3,709,600	1,444,600	12,861,000
Regional Capital Rec Projects	3,000	3,000	3,000	3,000	3,000	15,000
Transportation Improvement	2,128,700	1,271,700	1,285,000	1,298,700	1,312,700	7,296,800
Pine Grove Mills Street Lights	213	214	216	218	219	1,080
Park Improvement	539	539	539	539	539	2,695
Total	7,135,052	2,800,054	2,513,355	5,027,057	2,776,058	20,251,575
Special Revenue Funds	2018	2019	2020	2021	2022	TOTAL
Street Light	21,000	22,000	23,000	24,000	25,000	115,000
Hydrant	36,000	38,000	40,000	41,000	41,000	196,000
Liquid Fuels	635,120	641,120	647,120	653,120	659,120	3,235,600
Total	692,120	701,120	710,120	718,120	725,120	3,546,600
Grant/Loan Summary by Fund	2018	2019	2020	2021	2022	TOTAL
Capital Reserve Fund	237,600	109,600	9,600	9,600	9,600	376,000
General Fund	77,649	77,649	77,649	77,649	77,649	388,245
GOA Fund	3,920,000	200,000	0	2,500,000	235,000	6,855,000
Liquid Fuels Fund	635,120	641,120	647,120	653,120	659,120	3,235,600
Park Improvement Fund	0	0	0	0	0	0
Regional Capital Rec Projects	0	0	0	0	0	0
Transportation Improvement Fund	500,000	0	0	0	0	500,000
Total	5,370,369	1,028,369	734,369	3,240,369	981,369	11,354,845

Tax Revenue Projections

The tax revenues make up some 65% of the total township revenue on average, depending if there are any loan proceeds.

The General Fund revenue projections include annual increases based on type of revenue source. Each source has a different projected increase. Earned income taxes are projected to increase at 3.0%, Real Estate taxes and Local Services taxes at 2.0% and Transfer taxes with 1% projected increases.

Tax Revenue	2018	2019	2020	2021	2022	TOTAL
Real Estate Taxes	1,450,000	1,479,000	1,508,580	1,538,752	1,569,527	7,545,858
Earned Income Taxes	6,890,000	7,096,700	7,309,601	7,528,889	7,754,756	36,579,946
Transfer Taxes	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
Local Services Taxes	320,000	326,400	332,928	339,587	346,378	1,665,293
Total	9,860,000	10,102,100	10,351,109	10,607,227	10,870,661	51,791,097
Average EIT per Resident	366.68	373.94	381.34	388.89	396.58	
Percentage of Total Revenue	41.2%	61.8%	63.6%	48.4%	61.1%	

Interfund Transfers

Funding for many of the capital funds is derived from transfers from the General Fund and debt proceeds from the General Obligation Fund. These transfers, whether mandated or not, have a direct impact on the General Fund balance and the associated capital funds. The following table details the projected transfers during the term of the CIP.

General Fund Transfers Out	2018	2019	2020	2021	2022	TOTAL
TIF	1,258,700	1,271,700	1,285,000	1,298,700	1,312,700	6,426,800
Capital Reserve	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
Ag Preservation	15,000	15,000	15,000	15,000	15,000	75,000
Liquid Fuels	0	0	0	0	0	0
General Obligation Fund	648,000	758,100	804,100	1,026,100	1,029,100	4,265,400
Total	3,121,700	3,244,800	3,304,100	3,539,800	3,556,800	16,767,200
GOA Transfers Out	2018	2019	2020	2021	2022	TOTAL
Capital Reserve	3,550,000	200,000	0	2,500,000	235,000	6,485,000
Transportation Improvement Fund	370,000					370,000

Tax Considerations

The Township maintains a fiscally responsible approach to budgeting. Increases in tax rates have not occurred on any frequent basis. Rather, the township relies on annual revenue increases from a growing tax base. At this time, there is no projected tax increase included in the CIP. The local economic conditions are very positive and have led to increased Earned Income Tax revenues and increased Transfer Tax revenues. In addition, the township has aggressively pursued grant funding. Grant revenue has been very beneficial to the township finances. Combined with fiscal restraint, the township maintains strong financial footing.

Grant Revenue Projections

Grant revenue assists the township in many ways. It is one way to provide additional revenue for projects without raising taxes or cutting expenditures elsewhere. Many federal grants are administered by the state and doled out to local governments in accordance with federal mandates. One such grant is the DUI grant that police receive to offset the costs of checkpoints and DUI enforcement.

The state provides special funding from its tax collections, such as the liquid fuels grants or DCNR recycling grants. Additionally, the state provides funding for parks and open space and to preserve farmland from development.

The township works hard to take advantage of grant money available as a way to provide additional benefits to the residents without raising local taxes to pay for them. However, many of these grants are competitive and cannot be relied upon as guaranteed revenue sources each year.

Other contributions include loan proceeds, developer payments for the Regional Capital Recreation Projects and several Right of Way agreements.

West College Avenue Streetscape Grant Application Initiative

In 2017, \$2 million is included in the budget as the Township's share of the cost to install streetscape improvements along West College Avenue from Corl Street to Buckout Street at the Township/Borough line. Staff submitted a grant application totaling approximately \$1,387,000 including design, construction, utility impacts, easement acquisition, construction, and inspection of 8 foot wide concrete sidewalks on both sides of West College Avenue, street light conduit, repairs and replacement of affected concrete curb, and related construction.

The 2018–2022 Capital Improvement Plan anticipates one grant for Planning & Zoning initiatives. Pennsylvania Act 89 (transportation bill) providing financial support to transportation projects that focused on job creation, multimodal transportation, environmental sustainability, and more established the Penn DOT Multimodal Transportation Fund in 2014. If successful, funding from this program will be used to complete streetscape improvements along the West College Avenue corridor in the Terraced Streetscape District.

This will supplement the 2014 PennDOT Transportation Alternatives Program grant that was awarded and used to install sidewalks and supporting infrastructure in the district. An application for the grant was submitted in the fall of 2015 and award announcements are expected in the summer of 2016.

Other Grant Funding Efforts

As allowed by the funding agency, either annually, bi-annually, or as announced, staff seeks out and applies for grant funding from various agencies.

County Liquid Fuels Grant: Every other year public works staff apply for a County Liquid Fuels Grant, typically around \$30,000 to assist with a capital paving project. In 2015, the Township received \$30,000 in county liquid fuels funds to assist with the cost of paving Circleville Road.

Automated Red Light Enforcement Grant: For the current CIP, subject to installation of new hardware and software through an ARLE grant, traffic signal performance will be optimized on a more frequent basis than in the past, annually or more frequently.

TreeVitalize Grant: In 2014, public works staff applied for and was awarded a grant for \$20,000 to replace street trees infected with the emerald ash borer. Staff will continue to apply for such grants as new grant rounds are announced.

Green Light Go Grant: In 2016, the public works staff received approval for a \$176,085 (50%) grant to assist in funding the cost to complete traffic signal improvements and ADA compliant accessibility for the intersection of West College Avenue and Corl Street. Payment is expected in 2017.

Recycling Grant Act 101 Section 902 Recycling Program Grant: This program administered by PADEP provides funding to municipalities for recycling equipment. In 2013, public works staff requested funding in the amount of \$206,000 (90% of the total cost) for 4 leaf boxes and 1 brush collection truck with grapppler. PADEP announced the award of this grant in 2014. The grapppler truck was purchased and put into service in 2015. Since we received a grant in this last round, staff cannot apply for funding in the next grant round, but will apply for funding when allowed.

Net Project Cost Table					
Description	Fund	Cost	Grants	Loans	Net cash
Administration building renovation	CR	500,000		500,000	0
Public works Maintenance Facility	CR	2,250,000		2,250,000	0
Fuel Pumps with Canopy	CR	300,000		300,000	0
Louis Silvi Field Upgrades	CR	104,000	52,000		52,000
Fire Station	CR	2,580,000		2,500,000	80,000
Traffic Signal Performance Metrics (ARLE)	TIF	640,000	500,000		140,000
Corl Street/West College Signal (GLG)	CR	359,000	176,000		183,000
Cecil Irvin Park	CR	200,000	100,000		100,000
Suburban Park Improvements	CR	200,000		200,000	0
Tudek Park Improvements	CR	310,000		310,000	0
Haymarket Park Improvements	CR	235,000		235,000	0
Total		7,678,000	828,000	6,295,000	555,000
Percentage of Costs			10.8%	82.0%	7.2%
	SUBTOTAL by FUND				
	CR	7,038,000	328,000	6,295,000	415,000
	TIF	640,000	500,000	0	140,000
	Total	7,678,000	828,000	6,295,000	555,000

GRANT/LOAN TABLE								
Grant/Loan/Contributions Detail	Fund	Type	2018	2019	2020	2021	2022	TOTAL
CR Codes Rent of Fire Trailer	CR	C	9,600	9,600	9,600	9,600	9,600	48,000
Green Light Go Green grant	CR	C	176,000					176,000
DEP 902 Recycling Grant	CR	G						0
DCNR Cecil Irvin Park	CR	G		100,000				100,000
DCNR Loius Silvi field upgrades	CR	G	52,000					52,000
Loan Proceeds for new fueling station	GOA	L	300,000					300,000
Loan Proceeds for Admin bldg renovation	GOA	L	500,000					500,000
Loan Proceeds for new PW building	GOA	L	2,250,000					2,250,000
Loan Proceeds for new fire station	GOA	L				2,500,000		2,500,000
Loan Proceeds for Tudek Park	GOA	L	300,000					300,000
Blue Course Drive Property	GOA	L						0
Cecil Irvin Park Improvements	GOA	L		200,000				200,000
Suburban Park Improvements	GOA	L	200,000					200,000
Haymarket Park Improvements	GOA	L					235,000	235,000
Northern ITS Cable Right of Way	GF	C	22,144	22,144	22,144	22,144	22,144	110,720
Suneysis Right of Way	GF	C	4,570	4,570	4,570	4,570	4,570	22,850
Crown Castle Right of Way	GF	C						0
DUI Enforcement	GF	G	43,435	43,435	43,435	43,435	43,435	217,175
Drive Safe Program	GF	G	3,000	3,000	3,000	3,000	3,000	15,000
Buckle Up Program	GF	G	4,500	4,500	4,500	4,500	4,500	22,500
County Liquid Fuels	GF	G						0
Liquid Fuels	LF	G	590,000	596,000	602,000	608,000	614,000	3,010,000
Liquid Fuels Turnback	LF	G	45,120	45,120	45,120	45,120	45,120	225,600
College Court fee in-lieu	PI	C						0
Toll Brothers fee in-lieu	RCRP	C						0
ARLE Grant	TIF	G	500,000					500,000
Terraced Streetscape Funding	GOA	L	370,000					370,000
Total			5,370,369	1,028,369	734,369	3,240,369	981,369	11,354,845
Grant/Loan Summary by Fund	Fund		2018	2019	2020	2021	2022	TOTAL
Capital Reserve Fund	CR		237,600	109,600	9,600	9,600	9,600	376,000
General Fund	GF		77,649	77,649	77,649	77,649	77,649	388,245
GOA Fund	GOA		3,920,000	200,000	0	2,500,000	235,000	6,855,000
Liquid Fuels Fund	LF		635,120	641,120	647,120	653,120	659,120	3,235,600
Park Improvement Fund	PI		0	0	0	0	0	0
Regional Capital Rec Projects	RCRP		0	0	0	0	0	0
Transportation Improvement Fund	TIF		500,000	0	0	0	0	500,000
Total			5,370,369	1,028,369	734,369	3,240,369	981,369	11,354,845
Grant/Loan Summary by Type	Type		2018	2019	2020	2021	2022	TOTAL
Grants	G		1,238,055	792,055	698,055	704,055	710,055	4,142,275
Contributions	C		212,314	36,314	36,314	36,314	36,314	357,570
Loans	L		3,920,000	200,000	0	2,500,000	235,000	6,855,000
Total			5,370,369	1,028,369	734,369	3,240,369	981,369	11,354,845

Chapter 4: Expenditure Details

Department Capital Requests

Each department request represents individual department forecasted needs for equipment or projects. The scope or the timing of the requests may change as information that is more current is obtained, the technology changes, or the direction of the plan changes. These requests are best estimates of the future costs given available information at the time of the printing.

Expenditure Projections Summary

Fund Group	2018	2019	2020	2021	2022	TOTAL
General Fund	12,844,030	13,275,766	13,650,752	13,996,985	14,263,296	68,030,827
Capital Projects Funds	8,804,600	3,737,740	2,629,270	5,462,140	2,972,250	23,606,000
Special Revenue Funds	662,000	702,750	742,638	757,669	801,853	3,666,910
Debt Service	4,568,000	958,100	804,100	3,526,100	1,264,100	11,120,400
Total	26,878,630	18,674,356	17,826,759	23,742,894	19,301,499	106,424,137
Capital Projects	2018	2019	2020	2021	2022	TOTAL
Ag Preservation		30,000				30,000
Capital Reserve	5,191,800	1,713,740	1,384,270	3,911,140	1,107,250	13,308,200
Regional Capital Rec Projects	110,000	111,000	113,000	116,000	119,000	569,000
Transportation Improvement	3,502,800	1,883,000	1,132,000	1,435,000	1,746,000	9,698,800
Pine Grove Mills Street Lights	0	0	0	0	0	0
Park Improvement	0	0	0	0	0	0
Total	8,804,600	3,737,740	2,629,270	5,462,140	2,972,250	23,606,000

General Fund Expenditures

The following table represents the expenditure details for the general fund. This would be the major operating costs in the CIP. The interfund transfers out are also displayed for your reference.

General Fund Detail	2018	2019	2020	2021	2022	TOTAL
Salaries & Benefits	5,800,000	5,974,000	6,153,220	6,153,220	6,337,817	30,418,257
New Staffing & Benefits	222,330	295,966	369,602	480,135	480,135	1,848,166
COG Programs	1,700,000	1,751,000	1,803,530	1,803,530	1,857,636	8,915,696
Vendors	2,000,000	2,010,000	2,020,300	2,020,300	2,030,909	10,081,509
Non Capital Items	0	0	0	0	0	0
Transfers Out	3,121,700	3,244,800	3,304,100	3,539,800	3,556,800	16,767,200
Total	12,844,030	13,275,766	13,650,752	13,996,985	14,263,296	68,030,827
General Fund Transfers Out	2018	2019	2020	2021	2022	TOTAL
TIF	1,258,700	1,271,700	1,285,000	1,298,700	1,312,700	6,426,800
Capital Reserve	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
Aq Preservation	15,000	15,000	15,000	15,000	15,000	75,000
Liquid Fuels	0	0	0	0	0	0
General Obligation Fund	648,000	758,100	804,100	1,026,100	1,029,100	4,265,400
Total	3,121,700	3,244,800	3,304,100	3,539,800	3,556,800	16,767,200
GOA Transfers Out	2018	2019	2020	2021	2022	TOTAL
Capital Reserve	3,550,000	200,000	0	2,500,000	235,000	6,485,000
TIF	370,000	0	0	0	0	370,000
Total	3,920,000	200,000	0	2,500,000	235,000	6,855,000

Non-Capital Items

Some items requested do not meet the criteria for capital expenditures. For example, if the unit cost of an item is less than \$2,500, it will not meet the capital cost threshold. Another criteria is that it is not an annual recurring item. Such items would be pavement markings which typically last about a year, or equipment rental, which is by definition not a capital expense. The table below identifies those items that are included in the CIP, yet not considered a capital expense.

FERGUSON TOWNSHIP							
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS							
NON-CAPITAL ITEMS							
Description	FUND	2018	2019	2020	2021	2022	TOTAL
Replace Certain Blinds Buildings	GF						0
Road Materials	LF	96,000	103,000	110,000	118,000	126,000	553,000
Equipment rental	LF		4,000	4,000	5,000	5,000	18,000
Pavement Markings	LF	70,000	74,000	80,000	85,000	91,000	400,000
Road Salt	LF	120,000	120,000	120,000	120,000	120,000	600,000
Sealcoat bike paths and parking lots	CR	32,000	34,000	37,000	39,000	42,000	184,000
Less lethal rifle	CR	772					772
Rifles for tactical teams (2)	CR	1,930					1,930
Dress Uniforms (22)	CR	7,075					7,075
Patrol rifle optical sights (12)	CR	5,240					5,240
Automatic External defibrulators (10)	CR	22,180					22,180
Hand guns (24)(net of trade)	CR		16,550				16,550
Gun safe	CR			2,000			2,000
Plant trees (20 per year)	CR	10,000	10,000	10,000	10,000	10,000	50,000
							0
							0
TOTALS		365,197	361,550	363,000	377,000	394,000	1,860,747
EXPENDITURES BY FUND							
GF		0	0	0	0	0	0
LF		286,000	301,000	314,000	328,000	342,000	1,571,000
TIF		0	0	0	0	0	0
CR		79,197	60,550	49,000	49,000	52,000	289,747
Total		365,197	361,550	363,000	377,000	394,000	1,860,747

Staffing

Changes in the number of personnel are included in the budget due to the significance of the cost of additional staffing. Not only does salary have to be considered, but also payroll taxes, health related costs, other insurances and pensions. Only additional positions are specifically mentioned. Current staffing is included in the operational projections. This includes part time staffing as well, since such staffing represents labor requirements to fulfill township service delivery. Overtime is also included in the FTE (full time equivalent) calculations. It is important to be aware that overtime is an indication of additional staffing needs, usually not sufficient to merit an additional position.

CIP New Personnel Summary						
New Personnel	2018	2019	2020	2021	2022	TOTAL
Administration	68,808	68,808	68,808	68,808	68,808	344,038
Finance	0	0	0	0	0	
Engineering	0	0	0	0	0	0
Police	0	0	0	0	0	0
Planning	0	0	0	110,533	110,533	221,066
Public Works	153,522	227,158	300,794	300,794	300,794	1,283,062
Total	222,330	295,966	369,602	480,135	480,135	1,848,166
	CCC to fulltime	1 road worker	1 dendriton	1 economic development coordinator		
	2 road workers					
	mechanic promo					

Fulltime Equivalents

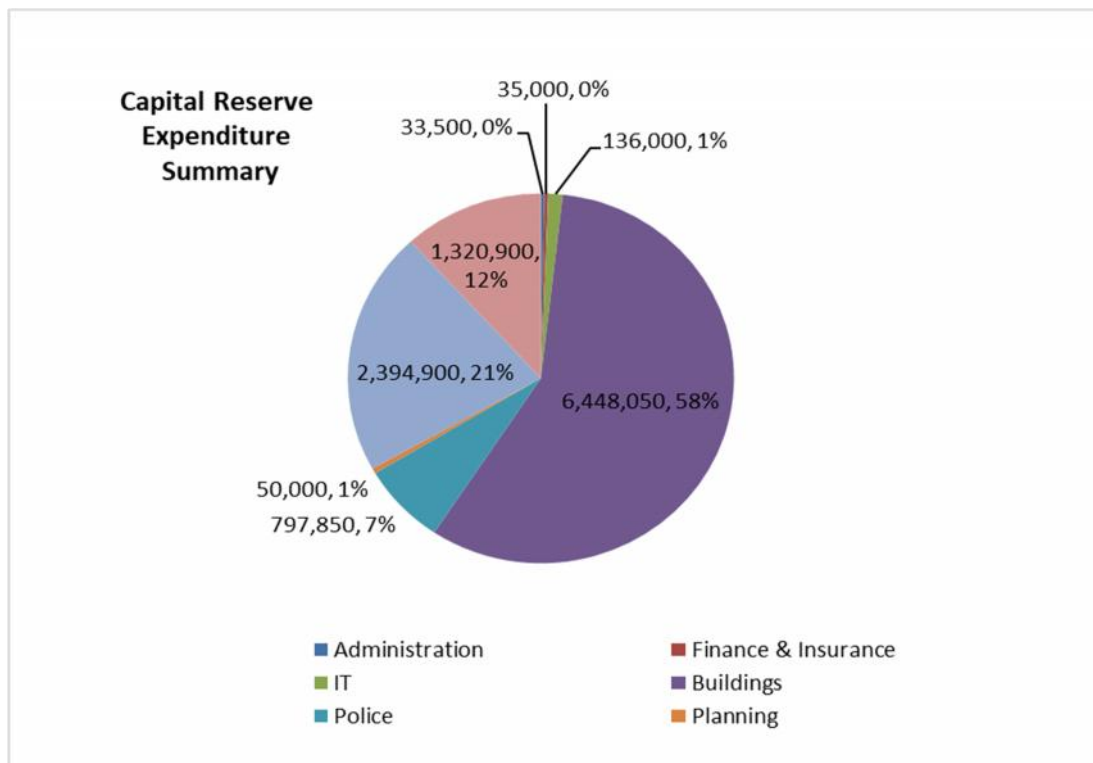
The number of township “Full-time Equivalents”, a measure of employment based on the number of hours paid for all staff helps determine the rate of change in the staffing levels of the township. One FTE is equivalent to 2080 hours worked. The proposed table is included for your reference. The resident per FTE provides information as to the relative size of the township staff for the amount of residents served. It can be used as a benchmark against other municipalities to compare staffing levels and related costs.

FERGUSON TOWNSHIP FULL TIME EQUIVALENTS					
Residents/FTE	2018	2019	2020	2021	2022
Population	18,604	18,790	18,978	19,360	19,554
Elected Officials	7,442	7,516	7,591	7,744	7,822
Administration	4,134	4,176	3,451	3,520	3,555
Finance	5,315	5,369	5,422	5,531	5,587
Buildings & Grounds	12,403	12,527	12,652	12,907	13,036
Engineering	3,383	3,416	3,451	3,520	3,555
Police	738	746	753	768	776
Planning & Zoning	3,383	3,416	3,451	3,520	3,008
Public Works	954	835	808	824	832
FTEs					
Elected Officials	2.5	2.5	2.5	2.5	2.5
Administration	4.5	4.5	5.5	5.5	5.5
Finance	3.5	3.5	3.5	3.5	3.5
Buildings & Grounds	1.5	1.5	1.5	1.5	1.5
Engineering	5.5	5.5	5.5	5.5	5.5
Police	24.0	24.0	24.0	24.0	24.0
Police OT (from YE)	1.2	1.2	1.2	1.2	1.2
Planning & Zoning	5.5	5.5	5.5	5.5	6.5
Public Works	19.0	22.0	23.0	23.0	23.0
Public Works OT (from YE)	0.5	0.5	0.5	0.5	0.5
Total	67.7	70.7	72.7	72.7	73.7
New Staff					
Admin	0.5	0.5	0.5	0.5	0.5
Planning				1.0	1.0
Public Works	2.0	3.0	4.0	4.0	4.0
Arborist					
Total	2.5	3.5	4.5	5.5	5.5

As mentioned previously, the **Capital Projects Funds** are reserved for projects restricted for specific purposes. Some funds have external restrictions, such as the Pine Grove Mills Street Light Fund and the Piney Ridge Fund, while others have Board of Supervisors restrictions, such as the Capital Reserve fund, the Regional Capital Recreation Projects Fund and the Transportation Improvement Fund

Capital Reserve Fund	2018	2019	2020	2021	2022	TOTAL
Administration	0	0	0	0	33,500	33,500
Finance & Insurance	22,500	12,500	0	0	0	35,000
IT	14,000	27,000	65,000	0	30,000	136,000
Buildings	3,575,250	246,630	85,100	2,526,310	14,760	6,448,050
Police	270,800	131,100	140,700	95,850	159,400	797,850
Planning	0	0	50,000	0	0	50,000
Public Works Equipment	507,350	636,510	205,470	456,980	588,590	2,394,900
Parks	489,900	260,000	271,000	300,000	0	1,320,900
Total	4,879,800	1,313,740	817,270	3,379,140	826,250	11,216,200
Roads & Other	2018	2019	2020	2021	2022	TOTAL
Liquid Fuels	321,000	344,000	368,000	393,000	421,000	1,847,000
Capital Reserve	312,000	400,000	567,000	532,000	281,000	2,092,000
Transportation Improvement	3,502,800	1,883,000	1,132,000	1,435,000	1,746,000	9,698,800
Total	4,135,800	2,627,000	2,067,000	2,360,000	2,448,000	13,637,800

The **Capital Reserve Fund** comprises the equipment capital requests along with occasional projects. This is one of the Capital Projects Funds. Each department puts in requests for equipment in this fund.



The Special Revenue Funds are those funds that have a special assessment to obtain revenue rather than taxes. The township adds a separate assessment for street lighting and fire hydrants, while the state administers a fuel tax to help local governments maintain their roads.

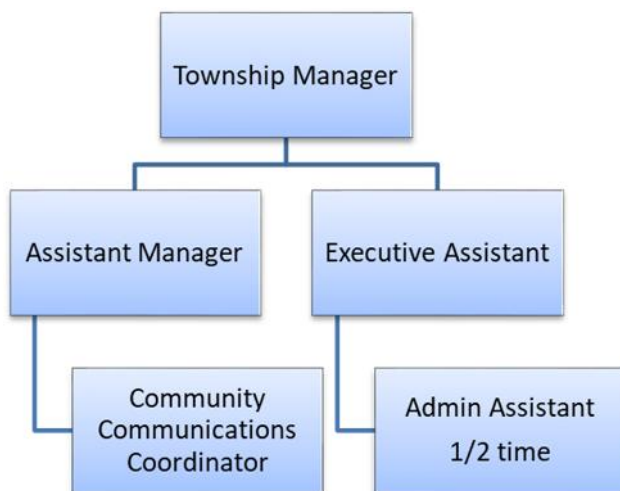
Special Revenue	2018	2019	2020	2021	2022	TOTAL
Street Light	20,000	21,000	22,050	23,153	24,310	110,513
Hydrant	35,000	36,750	38,588	40,517	42,543	193,397
Liquid Fuels	607,000	645,000	682,000	694,000	735,000	3,363,000
Total	662,000	702,750	742,638	757,669	801,853	3,666,910

Departmental Expenditures

ADMINISTRATION DEPARTMENT

The Administration Department proposes to spend **\$33.5 Thousand or .3%** of the **Capital Reserve Fund Requests** during the term of this capital plan.

Organizational Chart



Administration Staffing

The Administration Department has recognized the need to complete some historical scanning of documents to reduce the hard copy storage and improve retrieving time of certain documents. Existing staff does not have sufficient time available to provide a dedicated effort to accomplish this task. The suggested approach is to use an intern or business school graduating student. With the document imaging software changes in 2016 this part-time position was not filled and is being rebudgeted.

The Community Communications Coordinator position began as a part-time position in 2012 and has functioned well. The township's community engagement has expanded during the past 5 years and maintaining the various informational outlets has grown. Moving this position to full-time will allow the township to both maintain its current information outlets but also expand to other outlets and media.

FERGUSON TOWNSHIP						
2018 – 2022 CIP STAFFING						
ADMINISTRATION STAFFING						
PT to FT COMMUNITY COMMUNICATIONS COORDINATOR						
Direct Costs Estimate	2018	2019	2020	2021	2022	Total
Salary	35,963	35,963	35,963	35,963	35,963	179,816
Health/Eye/Dental	24,000	24,000	24,000	24,000	24,000	120,000
Life/Disability Insurance	600	600	600	600	600	3,000
Pension	3,596	3,596	3,596	3,596	3,596	17,982
Employer Taxes	2,871	2,871	2,871	2,871	2,871	14,355
Workers Comp	1,777	1,777	1,777	1,777	1,777	8,885
Total	68,808	68,808	68,808	68,808	68,808	344,038

Department Activities

The Administration Department provides overall support, guidance and direction for the township governmental and operational responsibilities. Coordinating the various long-range plans with the Capital Improvement Program Budget is a critical function of the Department.

The goal of the Administration Department is to strive to advance professional management through open and accountable government leadership dedicated to providing sound financial management, public safety, responsible planning, recreational opportunities and quality community infrastructure. Our goal is to continue as a progressive, healthy and livable community for future generations.

Managing the township organization and related services requires foresight to anticipate trends and new technology while meeting the basic service needs of the residents and businesses. Federal and state mandates many times affect the township, requiring the township absorb additional costs while maintaining current staffing levels. At the end of the day, the delivery of services that many residents, businesses and visitors have come to expect must be performed.

2017 Accomplishments

The Administration Department has made good progress as of mid-year 2017 toward a number of initiatives, and is hoping to achieve several more by the end of the year. Staff is working with the architectural firm By Design, LLC to develop a Building Master Plan that hopes to identify the most efficient and effective use of existing building space to accommodate current and future staffing needs. Also, staff is currently working with a digitizing firm to scan and index over 6,000 tax parcel files. This will reduce paper consumption, improve staff efficiency, and create additional space to accommodate staff growth. The Township has completed its implementation of Laserfiche, document imaging software, to reduce paper consumption, streamline business processes, and ensure compliance with state and federal law governing retention and disposition of public records.

The Township has completed its executive recruitment of a new Township Manager, and is currently in the process of selecting a new Chief of Police. Turnover of senior staff positions has

had a demonstrable effect on the progress of some major initiatives. However, the Township is poised to complete several significant projects in 2017. First, Administration and Public Works staff continue to work toward the design of a Public Works Maintenance Facility that hopes to achieve LEED Gold Certification. An update to the 2011 Community Survey is also planned. Finally, Township Administration will continue to assist in other projects as needed including the rewrite of the zoning and subdivision and land development ordinances, implementation of the regional police records management/mobile data system, creation of a Regional Park Master Plan, and more.

Strategic Plan Alignment

The Capital Improvement Plan seeks to advance the goals, objectives, and action steps as outlined in the Ferguson Township Strategic Plan. Over the next five years, several of the Strategic Plan items will be accomplished through the proposed expenditures in the Capital Improvement Plan.

Goal 1 – Financial Stability

b. Regularly compare the cost of providing services in-house with costs from private contractors, other municipalities, other government agencies, and costs of providing services regionally.

Goal 5 – Best Management Practices for Operations

a. Ensure adequate staffing and resources necessary to carry out Township services and programs.

c. Ensure that operational practices are fiscally responsible.

FERGUSON TOWNSHIP
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS
ADMINISTRATION

30.400.401.750		
Description	Year	Amount
Administration Office renovation	2018	see buildings
Feasibility study for new fire station	2018	see buildings
New Fire Station Land Purchase	2019	see buildings
Land Lease/Purchase for Brush & Leaf Composting	2019	see buildings
Replace Meeting Room Projector	2018	see IT
Website redesign	2019	see IT
Fulltime Community Communications Coordinator	2020	see salaries
New Fire Station	2021	see buildings
Replace Administration Vehicle	2022	28,500
Strategic plan update	2022	5,000
Total		33,500
Subtotals by Year	EXPENDITURES	
	2018	0
	2019	0
	2020	0
	2021	0
	2022	33,500
	Total	33,500

2018	
Administration Office Renovation	\$500,000
<p><i>Please note: The cost of the renovation is included in the Buildings department. The narrative is provided for your information as an Administration project.</i></p> <p>In 2017, the Township completed a Building Master Plan with By Design, LLC to evaluate its use of existing space given the need for increased staffing in the coming years. In 2018, staff is proposing to modify the interior of the administration building to reconfigure the space to make it more capable of handling additional staff. At this time, this amount is a ballpark figure until more information is available.</p> <p>Part of this project includes enclosing the Executive Assistant office space to allow for more privacy when discussing human resources matters.</p>	
New Fire Station – Feasibility Study	\$25,000
<p>The Board requested that a study be completed prior to expending significant funds on the construction of a multimillion dollar fire station. This study is expected to determine the needs and timing of such a facility for the township.</p>	

Replacement of Meeting Room Projector	\$4,000
<p><i>Please note: The cost of the projector is included in the IT department. The narrative is provided for your information as an Administration project</i></p> <p>The meeting room projector is over ten years old and has reached the end of its useful life.</p>	
2019	
Acquisition/Lease of Brush and Leaf Composting Property	\$80,000
<p><i>Please note: The cost of the composting property is included in the Buildings department. The narrative is provided for your information as an Administration project</i></p> <p>Brush and leaf collection has become a major public works activity on a monthly basis. State regulations requiring the collection of brush and leaf yard waste has created a cost center for the township in its annual operating budget. Transportation and recycling of this waste needs to be a major consideration. Leaf and grass waste is being composted by State College Borough under contract with the township. Brush on the other hand is being disposed of in two ways: Loose brush is being transported to the Hawbaker Recycling facility in Patton Township, while chipped brush is being stored for transport by the University Area Joint Authority for its composting with sewage sludge. Acquiring land closer to the brush collection point will reduce transport cost, save manpower time and wear and tear on equipment. UAJA has indicated an interest in partnering on this project. A site off of Old Gatesburg Road has been identified and the property owner has indicated a willingness to sell or lease acreage long-term.</p>	
New Fire Station - Land Acquisition	\$80,000
<p><i>Please note: The cost of the Fire Station is included in the Buildings department. The narrative is provided for your information as an Administration project.</i></p> <p>This item has been carried forward from 2017. The Centre Region Fire Director has requested that the Township be prepared to acquire approximately two acres in western Ferguson Township in close proximity to Pine Grove Mills that would allow Alpha Fire Company to better respond to residents. A potential location has been identified on the 2017 Official Map, but no discussion on acquisition has taken place.</p>	
Website Redesign	\$12,000
<p><i>Please note: The cost of the website redesign is included in the IT department. The narrative is provided for your information as an Administration project</i></p> <p>The Township completely redesigned its website in 2013; however, problems with the selected vendor have made accessing support difficult. Features and enhancements that were promised as part of the redesign had not been delivered, and the overall experience has been poor. Staff is recommending a redesign in this budget year to transition to a hosting platform that can better accommodate our needs and provide adequate support. Annual hosting fees are \$2,500 and included in the operating budget.</p>	
2020	
No items have been requested for this budget year.	
2021	
New Fire Station	\$2,500,000
<p><i>Please note: The cost of the Fire Station is included in the Buildings department. The narrative is provided for your information as an Administration project.</i></p>	

In the early years of this Capital Improvement Program budget the Centre Region COG Public Safety Committee will likely endorse a study to determine the need for a new fire station in Ferguson Township. The study will determine the ideal site, size and configuration of the station. Based on a two bay station with kitchen, social area, and sleeping quarters it is estimated this facility with cost approximately \$2.8 million.

2022

Administration Vehicle

\$28,500

Historically, the Administration vehicle had been on a three-year replacement schedule and the outgoing vehicle had been transferred to the fleet. Given the relatively good condition and low mileage of the current fleet vehicles, it is recommended that this replacement be moved to a five-year cycle.

Strategic Plan Update

\$5,000

The Board of Supervisors last adopted its Strategic Plan in 2017. In 2022, this iteration of the plan will be five years old and it may be prudent to plan for an update. This item is to cover the cost of consulting services and other ancillary expenses associated with the drafting and development of the plan.

FINANCE DEPARTMENT

The Finance Department includes the township and school real estate tax collection. The Finance Department requests total **\$35 Thousand or 0.3%** of the total **Capital Reserve Fund Requests** for this capital plan.

The finance department provides billing and cash receipts for both the township and school, payment of vendors and employee payroll, cash management and investments as part of the daily activities. In addition, the finance department works with staff to prepare the five year capital improvement plan and the annual budget.

The goals of the Finance Department includes on-going reviews of the township operations with staff to promote waste reduction, efficiency and cost effective operations. This comprises using technology, staff training, trend analysis, cost management techniques, vendor relations, best practices techniques, performance benchmarking and peer group discussions.

Given that the township operations are heavily dependent on personnel and related costs, it is important to give consideration to the cost of turnover. Some estimates put the cost of hiring and training new employees, depending on the skill level, of anywhere from 20% to 100% of the cost of the employees annual salary.

Strategic Plan Alignment

The Finance Department objectives relate directly to the following strategic plan goals:

Goal 1.0 Financial Stability

Ferguson Township strives to be financially stable and capable of funding the Township's resource demands for immediate and long-term sustainability.

Goal 2.0 Adequate Staffing

Ferguson Township will maintain adequate staffing and expertise to meet the needs of a growing population.

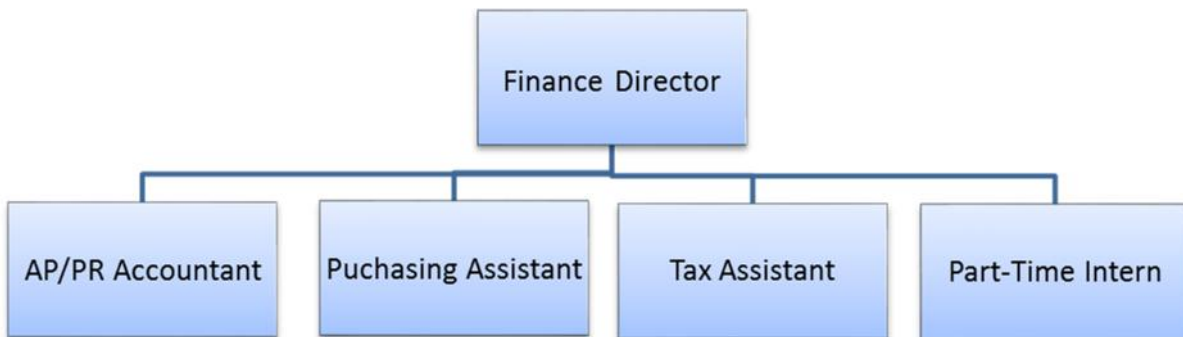
Goal 4.0 Service Delivery

Ensure service delivery in Ferguson Township is sufficient to accommodate growth, addresses new concerns of the community, and is provided at the lowest responsible cost to residents.

Goal 8.0 Regional Programs

Ferguson Township will continue to actively participate in regional programs that have a demonstrable positive impact on cost and quality of service delivery.

Organizational Chart



The Finance Department includes the tax collection and debt components of the Township. Activities consist of treasury management, billing and collection of revenues, payroll, accounts payable, debt management, risk management, grant management, fixed assets and inventories.

Historically, since changes in revenue and expenditures occur over years, rather than months, it is critical to monitor trends in order to adjust for such changes. The Finance Department works with the township staff and other related agencies, the GFOA (Government Finance Officers Association), the Centre Region COG and municipalities to obtain critical information on the health of the township at large. This way, the township can proactively manage the township operations to adjust to these changes.

One way to improve revenues is to obtain grant funding. The administration works closely with local agencies, developers and PA state agencies to locate and secure grant funding where possible. This supplements the tax revenues and reduces the burden on the township taxpayers.

TAX COLLECTION

The RBA cloud-based system is used for real estate tax collection and has been very effective for the township and school collections. This system is economical and effective.

FINANCE ITEMS

Our accounting system is a modular ERP (Enterprise Resource Planning) system. We can pick and choose what modules make the most sense for us and it is scalable. This allows the system to grow along with our needs. There are two modules that the township doesn't currently use that could be beneficial. Work flow and Inventory.

The accounting work flow is comprised of electronic requisition/purchasing/accounts payable processing. The concept of the electronic workflow is to eliminate paper documents related to requesting and authorizing purchases. Currently, the system is a paper system, where the individual requesting authorization to purchase an item completes a requisition form that is approved via a signature of the department head. Once approved, staff can order the item. The paper requisition is copied and one copy is retained in finance for matching with the invoice. If a formal purchase order is required, the Finance Department prepares one using the accounting system. The township manager approves the purchase via his signature. Once

approved, staff can order the item. The purchase order is matched to the invoice. While this paper system has functioned adequately for many years, technology is changing rapidly. Paper and related costs are being eliminated where possible to save money and time.

The township is currently using a server to house the springbrook software. This limits the ability to maintain current versions of the software due to cost of the upgrades. Springbrook offers a cloud version of the software that is maintained to the current version. There is a cost for this, however it would be offset at least partially by not having to maintain a server in-house. A ballpark estimate is included in the plan until a more relevant cost is obtained.

Springbrook has the capability to allow users to complete a requisition on the system directly and allow department heads and/or the Township Manager to approve the request on the system, as well. The main benefits of electronic requisitions are to reduce the chance of lost paperwork, reduce the amount of paper flow, speed up the process in many cases, and to save storage costs for records. Another benefit is to require staff to enter all the necessary data before the request can be submitted. Currently, it is common that certain data is missing, requiring additional staff time to obtain the missing data.

As the township becomes more advanced in technology, other options become available for consideration. . One such item is inventory control. Eventually, inventory costs will become so large that it will be material to the township finances. Currently, there is no tracking of inventory items. One example that could have a material affect on the township reporting is the salt inventory. The salt shed holds around 1,000 tons of salt. At \$75 per ton, it is possible to have \$75,000 worth of assets in the salt shed at any one time. An inventory system would be able to account for this. Other items include small items that do not meet the fixed assets threshold in cost. Small tools, automotive parts and supplies, chemicals etc. Finance would work with the public works department to implement such as system.

FERGUSON TOWNSHIP		
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS		
FINANCE		
30.400.402.750		
Description	Year	Amount
AP/PO workflow Springbrook	2018	7,500
Upgrade Springbrook to cloud version	2018	15,000
Inventory Module Springbrook	2019	12,500
Total		35,000
Subtotals by Year		
		EXPENDITURES
	2018	22,500
	2019	12,500
	2020	0
	2021	0
	2021	0
	Total	35,000

DEBT SERVICE



Proposed and current debt service costs total **\$4.27 Million (not including interfund transfers) or 4.0% Proposals for All Funds** in this capital plan. Part of the long term planning for capital items must include debt service considerations. Given the scope of the township strategic plans, many of the proposals require significant funding to be completed in a reasonable time. Financing such projects may require longer-term payments than may be possible given available township resources. Other future debt considerations include a second floor addition to the township main building.

The proposed debt service for the new five years is listed in the following chart. This includes the public works facility, park projects and other capital projects.

One financial consideration that is recommended is to limit debt spending. It is important to understand that debt is spending beyond the current ability to pay. It should be reserved for capital needs and used as an investment to reduce future operating costs. The ability to pay back the debt needs to be considered and management needs to be cognizant of the restrictions it places on townships ability to pay for other activities.

The township's portion of the regional debt is also included. This assumes no change in the COG formula for the pools loan, for which the municipal contributions are recomputed after 10 years. Currently, the regional pools and the regional parks have a long-term debt service requirements as listed in the table.

FERGUSON TOWNSHIP								
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS								
DEBT SERVICE PROJECTIONS								
TOWNSHIP DEBT	Payments Begin	Original Amount	Expires	2018	2019	2020	2021	2022
COG Pools Debt	2013	1,761,800	2028	130,000	130,000	130,000	130,000	130,000
COG Parks Debt	2012	2,121,840	2031	110,000	111,000	113,000	116,000	119,000
Fueling Facility financing (\$300K, 10 yrs 3%)	2019	300,000	2028		65,100	65,100	65,100	65,100
Terraced Streetscape PA Infrastructure Loan (\$370K, 5 yr 2%)	2018	370,000	2022	78,000	78,000	78,000	78,000	78,000
Ferguson Township Maintenance Facility (\$2.4M, 20 yr, 3%)	2018	2,250,000	2037	155,000	155,000	155,000	155,000	155,000
Township Fire Station (\$2.5M, 20 yr, 3%)	2021	2,500,000	2040				168,000	168,000
Township Administration Bldg renovations (\$500K, 5yr, 3%)	2018	500,000	2022	109,000	109,000	109,000	109,000	109,000
Park Improvement Loan (Tudek Phase 3a), 300K, 5 yr 3%)	2018	300,000	2022	66,000	66,000	66,000	66,000	66,000
Park Improvement Loan (Cecil Irvin 200K, 5 yr 3%)	2019	200,000	2023		44,000	44,000	44,000	44,000
Park Improvement Loan (Suburban 200K, 5 yr 3%)	2020	200,000	2024			44,000	44,000	44,000
Park Improvement Loan (Haymarket 235K, 5 yr 3%)	2021	235,000	2025				51,000	51,000
Total				648,000	758,100	804,100	1,026,100	1,029,100
PROCEEDS								
2018		3,420,000						
2019		500,000						
2020		200,000						
2021		2,735,000						
2022		0						
Total		6,855,000						

INFORMATION TECHNOLOGY DEPARTMENT

The Information Technology department requests **\$136 Thousand or 1.2%** of the **Capital Reserve Fund Requests** for this capital plan.

Currently, a third party, Hinton and Associates, manages the information technology department. The Assistant Manager and the Finance Director work closely with township staff and Hinton to manage the computer systems and software, perform updates, plan future needs of the township and assist with helpdesk tickets.

Desktop computers, laptops and software maintenance fall under the operating budget based on not meeting the \$2,500 threshold for capital expenditures.

OUTLOOK AND STRATEGIC PLANNING

It seems like technology is in a constant state of flux. Five years is like an eternity in the technology field. What was common 5 years ago may be completely different today. Mobile apps and cloud versions of software are commonplace.

What will the next 5 years bring to the industry and how will the township adapt or deal with the changes? Most likely internet security will be a hot topic now and the future. How do we protect our data, finances, and computer systems from intrusion?



With new generations of firewalls and antivirus, anti-intrusion capabilities, it will be important to not only protect the network and computers, but mobile devices, (including phones, laptops and tablets) as well. The system is only as safe as the weakest link.

As the software the township uses increases in complexity, the cost also increases. This cost has made it cost prohibitive for both the providers and the customers. To deal with this, providers are moving to cloud versions and offering Software as a Service (SAS) rather than the software itself.

THE TOWNSHIP IS GROWING

The township is large enough now to handle most IT activities independently rather than requiring a group endeavor. Part of the reason for this is the cost of hardware for the amount of computing power has decreased considerably. There are some real benefits to this. Decisions can be made that are tailored to the township needs and implementation can be performed faster. It is important to be aware that this also increases risk. It will require diligence on the township to plan for the technology needs using experts and relying on the IT contractor in assisting with choices. The IT strategic plan and the CIP fills this need.

SECURITY

One of the current issues facing business, government, residents and anyone using the internet is security. One threat that made the news recently is ransomware, or malicious software that is designed to block access to a computer system until a sum of money is paid. These types of threats are constantly changing and require the township to adapt to them. The township can protect itself using several methods, including staff training, enhanced firewalls, limiting access points, antivirus/anti-malware protection, proactive scanning of the network, and intrusion

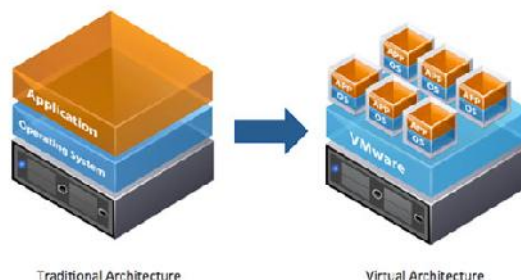
detection. Data backup, both onsite and offsite, protects the server data in case of fire or other disaster.

ARCHITECTURE

The township is virtualizing servers (sharing hardware to operate multiple operating systems on one piece of hardware). This requires redundancy since if a server fails, it will affect several systems. The total cost of hardware can be significantly less than the traditional architecture. The township is pursuing server virtualization where cost-effective and beneficial.

Virtualization Defined

For those more visually inclined...



INTERNET ACCESS & SECURITY

The township contracted with Comcast in 2017 for high speed internet. This is a 3 year agreement ending in 2020. This required the township to invest in a firewall and related software to protect the system. The benefits of this system is a fourfold increase in speed at the same operating costs. In addition, there is another potential solution, KINBER.

The Keystone Initiative for Network Based Education and Research (KINBER) network is a non-profit internet company providing services to the educational and government markets using fiber optic cable. The installation costs are steep (approximately \$50K). KINBER may allow the township to extend internet service to businesses, making the local environment more conducive to future regional employment.



TRAINING

One component of the changing technology is the constant need for training. Users cannot inherently understand how software works and how best to use it and the variety of applications is expanding along with the complexity of said software. It is essential to train staff how to be proficient using the tools at hand. Microsoft Office, Laserfiche, Springbrook, ESRI, Tyler all require specialized training to be used effectively.

CLOUD SOFTWARE

Technology is changing and cloud software is finding footing in industry. Microsoft Office is promoting the cloud version with the Office365 platform. The Centre Region COG Codes software, payroll and human resources, and the Centre Region COG Finance accounting software are evidence of this. Vendors are finding savings in cloud software and some are requiring customers to convert to the cloud product. One advantage of cloud software is that users have access to the most current software available and it may be automatically updated behind the scene.

Some software is not a good fit for the cloud. Geographic Information Systems (GIS) software is a good example. Due to the amount of data involved, communicating with the cloud becomes bottlenecked. It is likely that at some point in the future, this issue will be resolved. Online backup and restoration is another example of difficulty with the cloud. The volume of data during a full backup or restore could potentially require days to transfer. This is not currently a practical means of data restoration.



DOCUMENT MANAGEMENT

The township has installed the Laserfiche document management solution. . One of the major benefits of such a system is universal access. It doesn't require staff to deliver

documents physically to other staff's offices and documents are not lost in transit.

Storage space is considerably reduced and retrieval time is reduced to seconds rather than tens of minutes. Saving time on such activities is key to overall cost savings for the township. There is practically no limit on storage space for documents given the current storage capacities of hard drives.

This system provides for electronic workflow, a systematic procedure for processing documents. Given the time limits on processing certain documents, electronic transmission is far more efficient than paper. The applications are endless. Any paper process can be converted to an electronic one. The authorizations are done electronically via email and can be customized to fit the best practices.

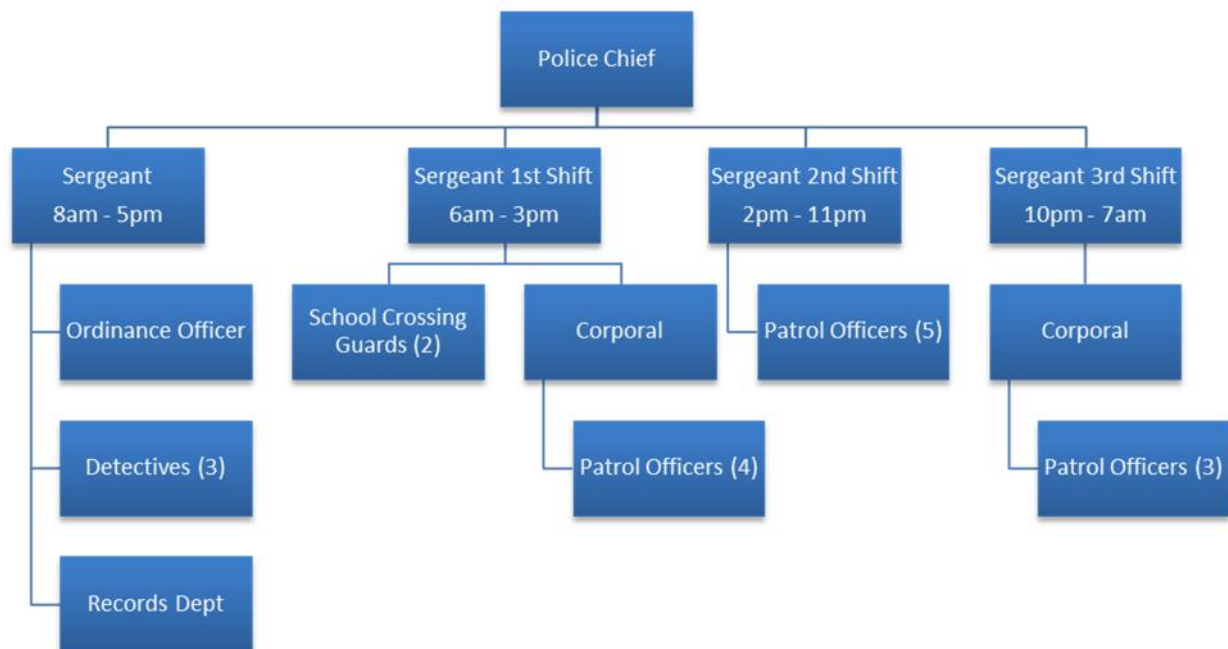
FERGUSON TOWNSHIP		
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS		
INFORMATION TECHNOLOGY		
30.400.407.750		
Description	Year	Amount
Network GB switch replacement of 10/100MB switch	2018	5,000
Replace main meeting room projector	2018	4,000
Network GB switch for new PW building	2018	5,000
Replacement server including database software and virtualization	2019	15,000
website redesign	2019	12,000
Offsite backup server	2020	15,000
KINBER connection	2020	50,000
Phone system upgrade/replacement	2022	30,000
Total		136,000
EXPENDITURES		
Subtotals by Year	2018	14,000
	2019	27,000
	2020	65,000
	2021	0
	2022	30,000
	Total	136,000

POLICE DEPARTMENT

The Police Department is proposing to spend **\$798 Thousand or 7.1%** of the **Capital Reserve Fund Requests** during the term of this capital plan

Organizational Chart

The proposed organizational chart for the department is displayed below. The department employs 21 officers as well as the Chief, and two records assistants, a part time ordinance enforcement officer and two part time crossing guards.



Police Vehicle Fleet Map

The current police vehicle fleet map is included for your reference. It includes ten Patrol vehicles, some powered by Compressed Natural Gas, as well as administrative, detective and training vehicles. The Mobile Command Vehicle, which is jointly owned but maintained by FT, is listed on the map. The replacement dates are included in the chart.

Vehicle #	FT-1	FT-2	FT-3	FT-4	FT-5	FT-6	FT-7	FT-8	FT-10	FT-11	FT-12	FT-13	FT-14	FT-17	FT-20	FT-21	FT-5 EVOC
Year / Make	2013 Chev Tahoe	2014 Chev Tahoe	2013 Chev Tahoe	2012 Chev Caprice	2016 Chev Tahoe	2012 Chev Caprice	2009 Ford Crown Victoria	2015 Chev Tahoe	2016 Chev Equinox	2013 Chev Tahoe	2014 Chev Caprice	2014 Chev Impala	2011 Chev Tahoe	2008 Chev Impala	2000 MCV	CRV 1995 Ford	2011 Chev Caprice
Twp ID	100046	100259	100045	100043	101004	100048	100195	100262	101001	100044	100261	100260	100254	100123		100252	100255
In Service	May-13	May-14	May-13	Oct-12	Nov-16	Oct-12	Jun-09	Jul-15	May-16	May-13	Apr-15	Mar-14	Aug-12	Mar-10	Jul-05	Jun-08	11/16
Assignment	Patrol	Patrol	Patrol	Patrol	Patrol	Patrol	Patrol	Patrol	Detective	Patrol	All	Chief	Patrol	Detective	Spec	Spec	Patrol
CNG	Y (Jun 2014)	N	Y (Jun 2014)		Y			N	N	Y (May 2013)	N		N				
Radio In Service	XTL2500 2013	XTL2500 2013	XTL2500 2013	XTL2500 2013	XTL2500 2013	XTL2500 2013	XTL5000 2009	APX4500 2015	XTL2500 2013	XTL5000 2009	APX4500 2015	XTL2500 2015	XTL2500 2013	XTL2500 2013	Multiple		XTL2500 2013
MCT Model / In service	GETAC Tablet (2017)	GETAC Tablet (2017)	GETAC Tablet (2017)	GETAC Tablet (2017)	GETAC Tablet (2016)	GETAC Tablet (2017)	No	GETAC Tablet (2015)	None	GETAC Tablet (2017)	GETAC Tablet (2015)	None	M-6 (2010)	None		None	None
VASCAR / VSPEC In service	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	VASCAR Plus IHC (2015)	VSPEC 2009	VASCAR Plus IHC 2015	N/A	VASCAR Plus IHC 2015	VASCAR Plus IHC (2015)	N/A	N/A	N/A		N/A	
Replacement Date	2019	2020	2018	2019	2022	2019	2020	2021	2022	2020	2022	2021	2017	2018	N/A	N/A	2016
Color	Bl/Silver	Bl/Silver	Bl/Silver	Silver	Silver	Silver	Flk Blue	Bl/Silver	Blk	Bl/Silver	Black	Black	Silver	Black	White		Silver
Registration Mileage May 2017	MG4783G	MG7709G	MG4785G	MG3039G	MG4280J	MG3038G	ED00010	MG6229H	JNV4824	MG4784G	JLE9032	JRK1229	MG6670F	HJ09095	95356MG	MG4227B	MG7642F
	87,834	71,838	102,690	85,101	7,439	85,081	77,371	25,995	6,612	76,977	15,350	16,888	100,288	51,563	5,657	187,887	129,686

Police Department Capital Requests

The total proposed Police Department capital items for the 2018 to 2022 CIP is described in the following requests. The proposed five-year Capital Improvement Plan expenditures are based on currently known information and are coordinated with the Township's strategic plan. It includes fleet rotation based on a 5 year or more cycle of 1 to 3 vehicles per year, depending on condition of the vehicle. Most new patrol vehicles have been specified as Ford Interceptors.

Police Vehicles & Accessories

FERGUSON TOWNSHIP								
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS								
POLICE VEHICLES								
30,400,410.750								
Description	Current Mileage	Age @ Replacement	2018	2019	2020	2021	2022	Total
Replace 2013 Tahoe (FT3) (including equipment)	102,690	5	39,250					39,250
Replace 2008 Impala (FT17) (including equipment)	51,563	10	32,300					32,300
Replace 2013 Tahoe (FT1) (including equipment)	87,834	6		42,200				42,200
Replace 2012 Caprice (FT4) (including equipment)	85,101	7		42,200				42,200
Replace 2012 Caprice (FT6) (including equipment)	85,081	7		42,200				42,200
Replace 2014 Tahoe (FT2) (including equipment)	71,838	6			46,900			46,900
Replace 2009 Crown Vic (FT7) (including equipment)	77,371	11			46,900			46,900
Replace 2013 Tahoe (FT11) (including equipment)	76,977	7			46,900			46,900
Replace 2015 Tahoe (FT8) (including equipment)	25,995	6				50,425		50,425
Replace 2014 Impala (FT13) (including equipment)	16,888	7				45,425		45,425
Replace 2016 Tahoe (FT5) (including equipment)	7,439	6					54,800	54,800
Replace 2016 Equinox (FT10) (including equipment)	6,612	6					49,800	49,800
Replace 2014 Caprice (FT12)(including equipment)	15,350	8					54,800	54,800
Total			71,550	126,600	140,700	95,850	159,400	594,100

2018

Police Vehicles & Equipment

\$71,551

Two vehicles will be due for replacement. Utility vehicles are specified. All makes/models will be reviewed for best value to need at the time of purchase.

Replace 2013 Chevrolet Tahoe (FT-3)	29,250
Equipment and installation	10,000
Subtotal	39,250
Replace 2008 Chevrolet Impala (FT-17)	26,300
Equipment and installation	6,000
Subtotal	32,300
Total	71,550

2019

Police Vehicles & Equipment

\$126,600

Three vehicles will be due for replacement.

Replace 2013 Chevy Tahoe (FT-1)	32,200
Equipment and installation	11,000
Subtotal	42,200
Replace 2012 Chevy Caprice (FT-4)	32,200
Equipment and installation	11,000
Subtotal	42,200
Replace 2012 Chevy Caprice (FT-6)	32,200
Equipment and installation	11,000
Subtotal	42,200
Total	126,600

2020

Police Vehicles & Equipment

\$140,700

Three patrol vehicles are due for replacement.

Replace 2014 Chevrolet Tahoe (FT-2)	35,400
Equipment and installation	11,500
Subtotal	46,900
-	-
Replace 2009 Crown Victoria (FT-7)	35,400
Equipment and installation	11,500
Subtotal	46,900
Replace 2013 Chev Tahoe (FT-11)	35,400
Equipment and installation	11,500
Subtotal	46,900
Total	140,700

2021

Police Vehicles & Equipment

\$95,850

Two vehicles will be due for replacement.

Replace 2015 Chevrolet Tahoe (FT-8)	38,925
Equipment and installation	11,500

Subtotal	50,425
Replace 2014 Chevy Impala (FT-13)	38,925
Equipment and Installation	6,500
Subtotal	45,425
Total	95,850

2022

Police Vehicles & Equipment

\$159,400

Three vehicles will be due for replacement.

Replace 2016 Chevrolet Tahoe (FT-5)	42,800
Equipment and installation	12,000
Subtotal	54,800
Replace 2016 Chevy Equinox (FT-10)	42,800
Equipment and installation	7,000
Subtotal	49,800
Replace 2014 Chevy Caprice (FT-12) (Unmarked Traffic)	42,800
Equipment and installation	12,000
Subtotal	54,800
Total	159,400

Police Equipment

FERGUSON TOWNSHIP 2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS POLICE SOFTWARE & EQUIPMENT						
30.400.410.750						
Description	2018	2019	2020	2021	2021	Total
Records Management/Mobile Data	67,550					67,550
Drone (shared with Patton Township)		4,500				4,500
Mobile device forensic software	7,700					7,700
						0
Total	75,250	4,500	0	0	0	79,750

Police Vehicle Equipment Sinking Fund

This sinking fund is to replace the mobile equipment, such as computers, monitors, keyboards, printers, air cards, in the police cars when they reach the end of life. It is also expected to be used for camera systems, license plate readers and other mobile technologies.

FERGUSON TOWNSHIP				
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS				
POLICE CAR EQUIPMENT SINKING FUND				
30.400.410.760				
Description	Year	Additions	Deductions	Balance
Annual Sinking Fund Contribution	2017	30,000		40,360
Annual Sinking Fund Contribution	2018	95,000		135,360
In-car Camera Systems	2018		60,000	75,360
Body worn Camera System	2018		34,000	41,360
Consultant for camera systems	2018		30,000	11,360
Annual Sinking Fund Contribution	2019	10,000		21,360
Annual Sinking Fund Contribution	2020	10,000		31,360
Annual Sinking Fund Contribution	2021	10,000		41,360
Annual Sinking Fund Contribution	2022	10,000		51,360
				51,360
				51,360
Total		165,000	124,000	
Subtotals by Year		EXPENDITURES		
		2018	124,000	
		2019	0	
		2020	0	
		2021	0	
		2022	0	

2018	
Records Management/Mobile Data System	\$67,550
The budget for the purchase of our share of the next generation, regionally shared mobile data/records management system was \$139,444. This included products, installation, data conversion, go-live assistance and project management. It is anticipated that at least \$71,899 will be spent by the end of 2017, leaving \$67,545 remaining in 2018.	
In-car Cameras (sinking fund item)	\$60,000
This purchase would add in-car audio/video cameras to the patrol fleet. (9 @ \$6,000 each plus one 10 TB server @ \$4,000 plus installation and training \$2,000.)	
Body Worn Cameras (sinking fund item)	\$34,000
This purchase would add body worn cameras to officers' equipment. Ideally, these would be part of the same system as the in-car cameras and upload to the same storage and management system. The amount would be reduced by any available grant funding. (18 @ \$100 each plus \$16,000 licensing costs and data storage.)	
IT Consultant Services (as part of In-car & body camera projects) (sinking fund item)	\$30,000
1 full time or 2-part time information technology consultant(s) are anticipated to support the selection, purchase, installation, interfacing, security, training, and storage, redaction and retrieval processes of the above camera systems.	
Mobile Device Forensic Analysis & Mapping Software	\$7,700
This purchase is for cell phone & other mobile device information extraction, analysis and mapping software. Our license for the most comprehensive cell phone content analysis software is reaching end of life and will need renewed & upgraded.	
2019	
Drone Shared with Patton Township	\$4,500
This is a re budget from 2017 in the event that the item & training are not completed within the 2017 budget year. The township is working with Patton Township to acquire a drone to be used in search and rescue and other police activities. This is the township's 50% share of the cost.	
2020 - 2022	
No items are yet budgeted for these years.	

PLANNING AND ZONING DEPARTMENT

The total proposed capital costs for the Planning and Zoning Department totals **\$50 Thousand or 0.4%** of the **Capital Reserve Fund Requests** for the five years.

The Department of Planning & Zoning do not have a specific project at this time for the CIP, however, in discussion with the Township Manager, we would like to suggest adding a staff member consistent with the 2016 Strategic Plan. To follow the Board of Supervisors lead in implementing the Ferguson Township Strategic Plan through the CIP Process, under the Goal of Economic Development, establish a Township Economic Advisory Group and consider the employment of an Economic Development Director (Coordinator). We would request projecting the position out to 2021, and suggest a salary at approximately \$70,000. A job description will need to be developed and the structure of a potential citizen based advisory group or commission will need to be developed prior to hire.

Organizational Chart



FERGUSON TOWNSHIP						
2018 – 2022 CIP STAFFING						
PLANNING STAFFING						
Direct Costs Estimate	2018	2019	2020	2021	2022	Total
Salary				70,000	70,000	140,000
Health/Eye/Dental				24,000	24,000	48,000
Life/Disability Insurance				600	600	1,200
Pension				7,000	7,000	14,000
Employer Taxes				5,475	5,475	10,950
Workers Comp				3,458	3,458	6,916
Total	0	0	0	110,533	110,533	221,066

Department Activities

The Department of Planning & Zoning is responsible for the regulation of land use activity in the township including all subdivision and land development activity. Staff reviews plan submissions for any new construction or alterations to ensure compliance with township ordinances. Additionally, the department conducts inspections on all building activity in the township.

The Zoning Administrator and Ordinance Enforcement Officer are responsible for the enforcement of township ordinances as they relate to items such as snow removal, abandoned vehicles, lawn maintenance, and more.

2017 Accomplishments

In June 2016, the Planning & Zoning Director recommended Environmental Planning & Design of Pittsburgh, PA to complete the revisions to the Zoning and Subdivision & Land Development Ordinances with the assistance of both staff and steering committee. To date, staff and consultant have not only worked with the Steering Committee, but also the Ferguson Township farming community on necessary adjustments to the rural district regulations. In June 2017, staff received the first working draft of the revised Zoning Ordinance, as staff and EPD will work with the Steering Committee on the proposed revisions and eventually present drafts to the Township Planning Commission and Board of Supervisors.

Planning and Zoning staff worked on two noteworthy in-house updates, namely Chapter 19 – Signs and Billboards and the 2009 Official Map. The Sign Ordinance has been substantially modified to comply with the United States Supreme Court decision in *Reed v. Town of Gilbert* requiring content neutrality in all municipal sign regulations. Further modifications have been added to provide for new types of signage, improve the ability for residents and businesses to interpret and apply the regulations, and make the ordinance more “business-friendly.” Additionally, the Official Map & Ordinance Update completed a year-long process of developing revisions to shared use paths, agricultural easements, public lands and parks, and a proposed fire station location.

Also, in late 2017 into 2018, Environmental Planning & Design will prepare to assist staff along with a neighborhood focused steering committee to complete a comprehensive update to the Terraced Streetscape District. The update will accomplish coordination not only with neighborhood stakeholders, but also Penn State University interests and synchronization with Borough ordinance efforts in the West End. The update will include review of existing ordinance provisions, deliberation of options and refinements, along with enhancement of dimensional and general design standards.

Strategic Plan Alignment

The Capital Improvement Plan seeks to advance the goals, objectives, and action steps as outlined in the Ferguson Township Strategic Plan. Over the next five years, several of the Strategic Plan items will be accomplished through the proposed expenditures in the Capital Improvement Plan.

Economic Development Coordinator

2) Economic Development

- a. Establish an economic development advisory group (with economic development expertise).
- b. Consider the employment of an economic development director (full-time, part-time, or a contracted service). This individual or contractor would be responsible to assist and support existing businesses to help them prosper and expand in Ferguson Township. He/she would be the Township's liaison with the business development community. He/she would develop an inventory of vacant commercial and industrial sites and would make that information available to interested parties. He/she would identify and pursue programs and grants to support economic development in Ferguson and would have responsibility for managing the Community Development Block Grant Program. (Board to initiate, staff to implement)

8) Promotion of Municipal Identity

- a. Develop our Sense of Place by developing a vibrant Town Center, preserving our agricultural heritage, and promoting the features that make the Township unique. (Staff)

Consultant – Rewrite of Land Use Ordinances (rebudgeted from 2016)

3) Growth Management

- a. Identify and complete (develop) plans for specific small areas. (Board, Staff, Planning Commission)
- b. Develop a future land use plan (Comprehensive Plan). (Staff, Planning Commission, Board)
- c. Develop a Township housing plan to provide for low and moderately priced housing in the Township (workforce housing). (Staff, Regional input, possible ad hoc advisory group)

4) Environmental Stewardship

- b. Make certain that land development regulations and development plans are consistent with environmental values (Staff, Planning Commission, Board)

Consultant - Rewrite Terraced Streetscape District (2017)

3) Growth Management

- a. Identify and complete (develop) plans for specific small areas. (Board, Staff, Planning Commission)
- b. Develop a future land use plan (Comprehensive Plan). (Staff, Planning Commission, Board)
- c. Develop a Township housing plan to provide for low and moderately priced housing in the Township (workforce housing). (Staff, Regional input, possible ad hoc advisory group)

4) Environmental Stewardship

- b. Make certain that land development regulations and development plans are consistent with environmental values (Staff, Planning Commission, Board)

Land Use Master Plan (2020)

3) Growth Management

- a. Identify and complete (develop) plans for specific small areas. (Board, Staff, Planning Commission)
- b. Develop a future land use plan (Comprehensive Plan). (Staff, Planning Commission, Board)
- c. Develop a Township housing plan to provide for low and moderately priced housing in the Township (workforce housing). (Staff, Regional input, possible ad hoc advisory group)

4) Environmental Stewardship

- b. Make certain that land development regulations and development plans are consistent with environmental values (Staff, Planning Commission, Board)

9) Partnerships and Regional Thinking

- b. Work towards regional cooperation on issues that affect the entire Centre Region

Planning & Zoning Department Requests

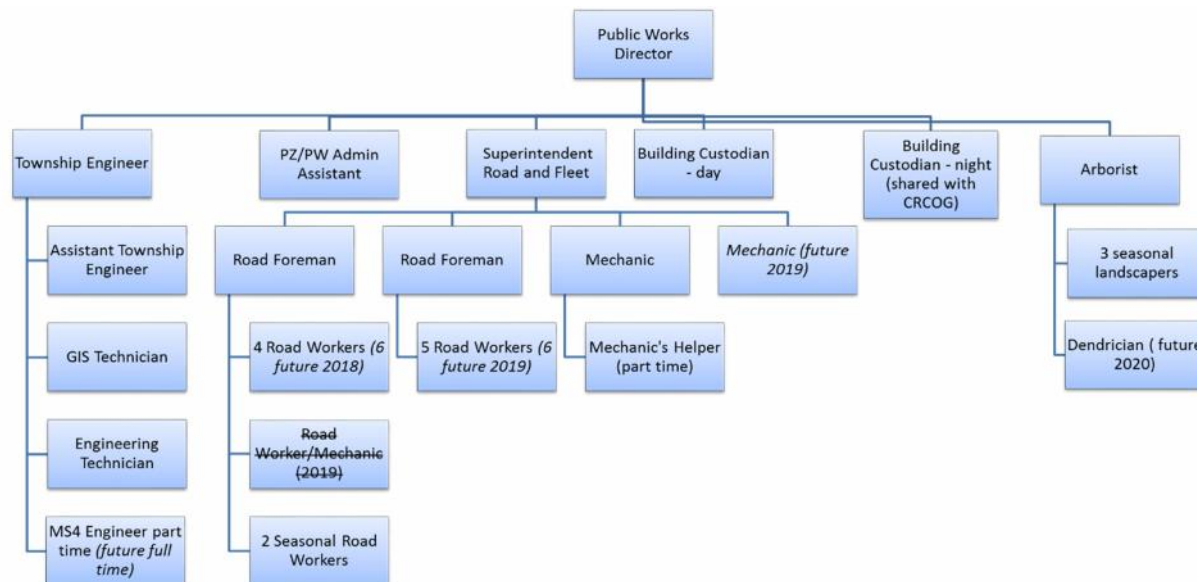
FERGUSON TOWNSHIP		
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS		
PLANNING		
30.400.414.750		
Description	Year	Amount
Land Use Master Plan	2020	50,000
Total		50,000
Subtotals by Year	EXPENDITURES	
	2018	0
	2019	0
	2020	50,000
	2021	0
	2022	0
	Total	50,000

2020	
Land Use Master Plan	\$50,000
<p>Several documents guide the township's planning decisions including the Official Map, Strategic Plan, and Centre Region Comprehensive Plan. A Land Use Master Plan would greatly supplement the value of those documents by providing an expanded, consolidated vision for community planning. The plan will focus on issues affecting the township such as a needs assessment on mixed-use development, areas where growth could be concentrated outside of the Regional Growth Boundary, accommodation of additional land uses, and promotion of economic development. This item will cover the cost of a consultant to assist in the preparation of this document.</p>	

PUBLIC WORKS DEPARTMENTS

PUBLIC WORKS STAFFING

The Public Works Department organizational chart is depicted below. New personnel may be requested in this 5-year CIP to meet ever increasing demands of the Municipal Separate Storm Sewer System (MS4) National Pollutant Discharge Elimination System (NPDES) permit requirements and the demand for road maintenance and capital road repairs. The organizational chart reflects current and proposed staffing.



FERGUSON TOWNSHIP						
2018 – 2022 CIP STAFFING						
PUBLIC WORKS STAFFING						
Staffing	2 road workers promote mech	1 road worker	1 dendriton			
Direct Costs Estimate	2018	2019	2020	2021	2022	Total
Salary	85,000	125,000	165,000	165,000	165,000	705,000
Health/Eye/Dental	48,000	72,000	96,000	96,000	96,000	408,000
Life/Disability Insurance	1,200	1,800	2,400	2,400	2,400	10,200
Pension	8,500	12,500	16,500	16,500	16,500	70,500
Employer Taxes	6,623	9,683	12,743	12,743	12,743	54,535
Workers Comp	4,199	6,175	8,151	8,151	8,151	34,827
Total	153,522	227,158	300,794	300,794	300,794	1,283,062
	2	3	4	4	4	
	2 ROAD WORKERS	1 ROAD WORKER	1 dendriton			
	Upgrade mech					

BUILDINGS AND GROUNDS SECTION

The total proposed capital costs for the Buildings & Grounds Section totals **\$6.4 Million or 60.1%** of the **Capital Reserve Fund Requests** for the five years.

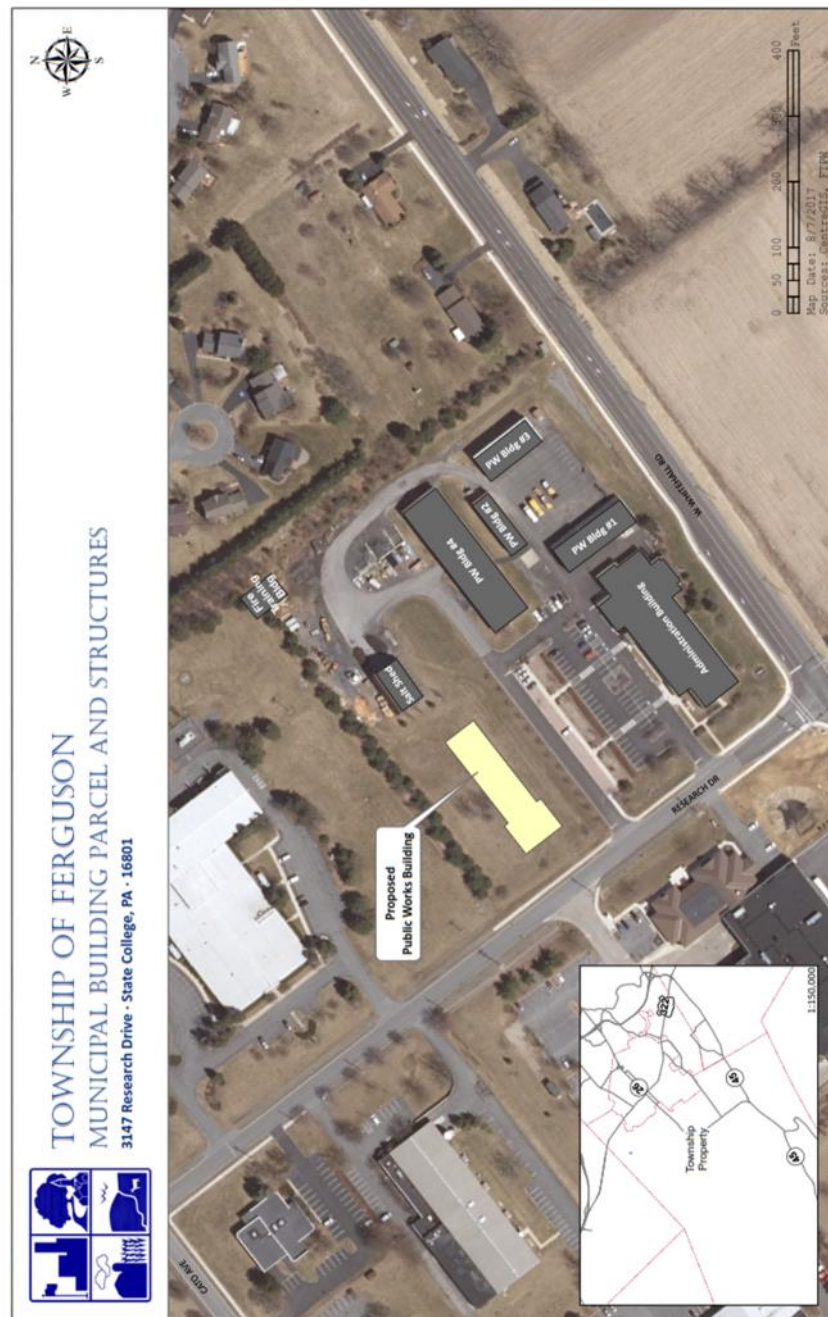
The Public Works Capital Building Fund Appropriation for building systems saves for the future replacement of building systems such as HVAC, roofs, doors, windows, flooring, light fixtures, security door system, cameras, fire system and panels, and audio video systems and fixtures.

In 2017, funding was set aside for the architectural and engineering fees to design a new LEED Gold Public Works building.. Some of these design expenses are expected to carry over to 2018.

In 2018, the CIP includes the construction of this new building, expected to be approximately 9,000 square feet including truck lifts, truck mechanic bays, storage, offices, break room and showers, bathrooms, and a truck wash facility. Square foot costs for such a building can vary from \$75/SF to \$350/SF depending on amenities, code requirements, LEED requirements, location and construction type. The budget includes \$250/SF for a new 60' x 150' building constructed of steel frames on concrete footers, metal trusses, concrete slab on grade, painted steel roof, architectural block, brick and metal siding and fitted up as a public works garage described above. This new building should serve the needs of the Public Works Department well into the future. Slight remodeling of Public Works Building 1 could allow the Police Department to make better use of this existing building for vehicle maintenance and equipment storage. In recent years, the Township has hired additional road workers and an arborist to better serve the needs of the growing Township. In addition, the acquisition of one man leaf collectors, brush grapple truck, and other equipment requires maintenance and storage. Currently, gross truck washing occurs outside on a stone pit and detailed washing occurs inside buildings with narrow slotted floor drains. The new building will be better suited for vehicle washing. The new building can also provide separate facilities such as locker rooms, bathrooms, and showers for men and women. As noted above, the building will be designed and operated to meet LEED requirements (Gold) and consideration will be given to roof top solar arrays. The site plan will also depict a new fuel island with canopy. The CIP does include a dual electric vehicle charging station to accommodate future Township owned electric vehicles. The plan will show any required additional parking and any upgrades to the stormwater management plan. This initiative is consistent with goal numbers 4) Environmental Stewardship, 5) Best Management Practices, 7) Promotion of Clean Renewable Energy of the Strategic Plan.

Also in 2018, the Public Works Department suggests funding the design and installation of a ground mounted solar array at 3147 Research Drive to offset electric costs consistent with goal 7 of the Strategic Plan - Promotion of Clean Renewable Energy

The below map of the Township property at 3147 Research Drive shows existing buildings and and one proposed location for the new public works facility. The architect and site design engineer will evaluate alternate locations on site for consideration.



The Public Works Department requests the following buildings and grounds items for this planning period.

FERGUSON TOWNSHIP					
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS					
BUILDINGS & GROUNDS					
30.400.409.750					
Description	Year	Expense	Grants	Loans	Cash
Feasibility study for new fire station	2018	25,000			25,000
Dual electric vehicle charging station	2018	5,250			5,250
Design and install solar panels at township building	2018	250,000			250,000
Site work, utilities, parking for new PW garage	2018	125,000			125,000
New PW maintenance facility	2018	2,250,000		2,250,000	0
Renovate PW building 1	2018	50,000			50,000
New fuel pumps, island, canopy, tanks	2018	300,000		300,000	0
100K generator upgrade	2018	60,000			60,000
Fitness Equipment	2018	2,000			2,000
Renovate administrative space	2018	500,000		500,000	0
Land purchase for new fire station	2019	80,000			80,000
Land Lease/Purchase for Brush/Leaf Composting 10%	2018	8,000			8,000
Land Lease/Purchase for Brush/Leaf Composting 90%	2019	72,000			72,000
Design and install solar panels PW building 3	2019	75,000			75,000
Fitness Equipment	2019	2,000			2,000
Design and install solar panels PW building 4	2020	75,000			75,000
Fitness Equipment	2020	2,000			2,000
New Fire Station	2021	2,500,000		2,500,000	0
Fitness Equipment	2021	2,000			2,000
Fitness Equipment	2022	2,000			2,000
Total		6,385,250	0	5,550,000	835,250
	EXPENDITURES				
Subtotals by Year	2018	3,575,250	0	3,050,000	525,250
	2019	229,000	0	0	229,000
	2020	77,000	0	0	77,000
	2021	2,502,000	0	2,500,000	2,000
	2022	2,000	0	0	2,000
	Total	6,385,250	0	5,550,000	835,250

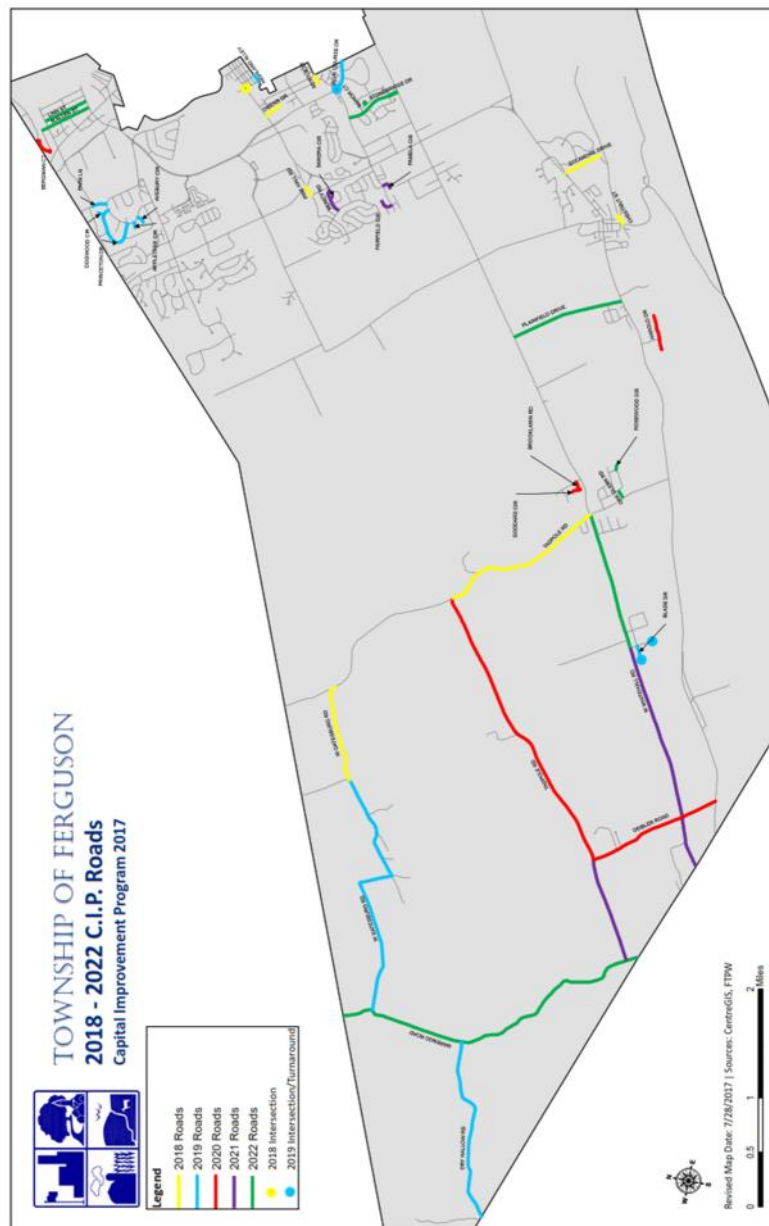
The Township established a Buildings & Grounds sinking fund for replacement of major equipment. The proposed sinking fund activity is included in the following chart.

The sinking fund was set up after the township building was renovated in 2007 to save for the future replacement of building systems such as HVAC, roof, doors, fixtures.

FERGUSON TOWNSHIP				
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS				
BUILDING EQUIPMENT SINKING FUND				
30.400.409.760				
Description	Year	Additions	Deductions	Balance
Beginning Balance	2017			226,800
Annual Sinking Fund Contribution	2018	47,480		274,280
Paint exterior stucco Administration Building	2018	included in bldg renovation		274,280
Upgrade exterior lighting	2018	included in bldg renovation		274,280
Annual Sinking Fund Contribution	2019	49,850		324,130
Camera system upgrades	2019		5,500	318,630
Rooftop HVAC police	2019	included in bldg renovation		318,630
Water heater & softener	2019		12,130	306,500
Annual Sinking Fund Contribution	2020	52,345		358,845
Replace Computer room halon fire suppression	2020		8,100	350,745
Annual Sinking Fund Contribution	2021	54,960		405,705
Annual Sinking Fund Contribution	2022	57,710		463,415
Replace steel doors (10)	2021		24,310	439,105
Replace fire protection alarm panel	2022		12,760	426,345
Total		262,345	62,800	
Subtotals by Year		EXPENDITURES		
		2018	0	
		2019	17,630	
		2020	8,100	
		2021	24,310	
		2022	12,760	
		Total	62,800	

ROAD PROJECTS

Road improvement projects make up the bulk of the capital expenditures for the Township. For the term of this CIP, road projects total **\$13.6 Million or 57.8%** of the **Capital Expenditures for All Funds**. The map below depicts the various roadwork that that township is planning to undertake during the term of this capital plan.



The following table portrays the various road projects during the term of the CIP. Detailed information is including in the appendix for your review. Following the road table is a detail of certain projects that are being funded with grant money.

FERGUSON TOWNSHIP								
2018 – 2022 CIP CAPITAL PROJECTS DETAIL-CASH BASIS								
PUBLIC WORKS ROAD PROJECTS								
FUND	CAT	DESCRIPTION	2018	2019	2020	2021	2022	TOTAL
R=road, D=stormwater, B=bicycle, O=other								
LF	R	ADA Curb Ramp Replacements	86,000	92,000	98,000	105,000	112,000	493,000
TIF	R	ADA Handicap Ramps	19,000	28,000		18,000	79,000	144,000
TIF	R	Appletree Circle		34,000				34,000
TIF	R	Aveberry Circle		45,000				45,000
TIF	R	Bergman Court			92,000			92,000
TIF	B	Bikepath feasibility study Atherton and Blue Course	25,000					25,000
TIF	B	Bikepath signs Marjorie Mae park to Suburban Park	2,500					2,500
TIF	R	Bikepaths & Parking lot pavement repair, sealcoating line striping	included in Non Capital Items					0
TIF	R	Blade Drive		60,000				60,000
TIF	R	Blue Course Drive		105,000				105,000
TIF	R	Brooklawn Road			34,000			34,000
TIF	R	Corl Street/West College Signal	359,400					359,400
TIF	R	Deibler Road			307,000			307,000
TIF	R	Dogwood Circle		36,000				36,000
TIF	R	Dry Hollow Road		96,000				96,000
TIF	R	East Chestnut Street	31,000					31,000
TIF	R	Fairfield Circle				39,000		39,000
TIF	R	Goddard Circle			64,000			64,000
TIF	R	Harold Drive			83,000			83,000
TIF	R	Highland Alley		32,000				32,000
TIF	D	Reline CMP pipes various places	688,000	496,000	348,000	597,000	382,000	2,511,000
TIF	R	Linn Street					108,000	108,000
TIF	R	Manor Court					16,000	16,000
TIF	R	Marengo Road					231,000	231,000
LF	R	Microsurfacing	235,000	252,000	270,000	288,000	309,000	1,354,000
CR	D	MS4 Cheasapeake Bay Pollutant Reduction Project	214,000	229,000	245,000	262,000	281,000	1,231,000
TIF	R	Muncy Road				55,000		55,000
TIF	R	Myrtle Drive	22,000					22,000
TIF	R	New Traffic Light Blue Course & Bristol		401,000				401,000
TIF	R	North Allen Street					123,000	123,000
TIF	R	Oak Glenn Road					21,000	21,000
TIF	R	Old Gatesburg Road and Science Park Road left turn arrows	20,000					20,000
TIF	R	Owens Drive	43,000					43,000
TIF	R	Pamela Circle				31,000		31,000
CR	D	Park Hills Drainage	54,000	171,000	322,000	270,000		817,000
TIF	R	Park Lane		58,000				58,000
LF	O	Pavement Markings	included in Non Capital Items					0
TIF	R	Plainfield Road					275,000	275,000
TIF	R	Princeton Drive		183,000				183,000
TIF	D	Repair Stormwater inlets & replace tops	9,000	32,000		31,000	53,000	125,000
TIF	R	Replace concrete curbs	46,000	68,000		128,000		242,000
LF	R	Road Materials	included in Non Capital Items					0
LF	O	Road Salt	included in Non Capital Items					0
TIF	R	Rosewood Court					21,000	21,000
TIF	R	Sandra Circle				15,000		15,000
CR	R	Sidewalk on Teaberry Lane	44,000					44,000
TIF	R	Stonebridge Drive					123,000	123,000
TIF	R	Sycamore Drive	471,000					471,000
TIF	R	Tadpole Road	656,000		179,000	68,000		903,000
TIF	R	Timothy Lane		17,000				17,000
TIF	R	Traffic Signal Minor Capital Improvement		23,000	25,000	26,000	28,000	102,000
TIF	R	Transit Study Blue Course Drive & North Atherton	75,000					75,000
TIF	R	Traffic Signal Performance Metrics (ARLE)	639,900					639,900
TIF	R	West Blade Road Turnaround	11,000	17,000				28,000
TIF	R	West Gatesburg Road	385,000	152,000				537,000
TIF	R	West Whitehall Road				427,000	286,000	713,000
								0
Total			4,135,800	2,627,000	2,067,000	2,360,000	2,448,000	13,637,800
EXPENDITURES BY FUND								
CR	D		268,000	400,000	567,000	532,000	281,000	2,048,000
CR	R		44,000	0	0	0	0	44,000
TIF	B		27,500	0	0	0	0	27,500
TIF	D		697,000	528,000	348,000	628,000	435,000	2,636,000
TIF	R		2,778,300	1,355,000	784,000	807,000	1,311,000	7,035,300
LF	R		321,000	344,000	368,000	393,000	421,000	1,847,000
LF	O		0	0	0	0	0	0
Total			4,135,800	2,627,000	2,067,000	2,360,000	2,448,000	13,637,800

Chesapeake Bay Pollution Reduction Plan (CBPRP)

A condition of the Township's NPDES MS4 permit is the completion of a CBRP. As such, new pollution reduction requirements will be required and a specific plan developed showing how pollutant loads to the Chesapeake Bay will be reduced by specific projects. The plan must also show pollutant reduction to impaired waterways (Slab Cabin Run and Spruce Creek). The Pollutant Reduction Plan is being prepared on a regional basis with projects developed for each municipality. The CIP includes funding in each year to design, acquire right of way, and construct stream channel restoration projects as required by the above.

In 2017 the Township solicited requests and received proposals to conduct a stormwater fee feasibility study (SFFS). If implemented, a stormwater fee can be used to fund stormwater improvement projects, staff and comply with MS4 requirements, replace failing stormwater infrastructure, address flooding, stormwater basin maintenance, and acquire land for passive stormwater management.

The CBPRP and SFFS are consistent with goals 1) Financial Stability, 4) Environmental Stewardship, 5) Best Management Practices for Operations, 6) Increase Participatory Government, and 9) Partnerships and Regional Thinking of the Strategic Plan.

Road Improvements by Contract:

Typically, each year all roadways in the Township are inspected and the condition assessed and documented in the form of a pavement inspection report. This report is utilized by the Public Works Director to prioritize capital road improvements including paving and determine appropriate roadways for road surface preservation techniques such as microsurfacing. In 2017, the Public Works Department utilized Paver software to assess road conditions..

Microsurfacing is a cold-mix paving system; it is not a hot-mix paving as is applied asphalt pavement. The material consists of small aggregate, asphalt emulsion, water and mineral fillers, and is generally applied in a 3/8" thick layer. A durable asphalt seal is applied to roads that have begun to show signs of aging and minor distress. By retarding the surface's natural breakdown, this process extends the pavement's lifespan approximately seven years. Microsurfacing adds no structural value to the pavement, and therefore, roadways that have deteriorated beyond a certain point are generally not good candidates for this process.

Candidates for paving are listed as line items in the CIP. Due to the specialized equipment used in paving operations, large paving projects are competitively bid. Some small paving projects on low volume roads are self-performed by FTPW with rented equipment. Often these small paving projects can be done cost effectively in house due to the mobilization costs and low economy of scale for a contractor for such small projects. It is also beneficial for the road crew to keep and enhance paving skills.

The CIP lists roads proposed for capital improvements, namely base repair by FTPW and a new asphalt wearing surface by contract. In some cases the existing asphalt surface will be milled off, and in some cases the existing surface will be overlaid. Budget pricing is based on historical costs for the township and estimated by the linear foot (prior to bidding, a detailed engineering estimate is prepared for each project). For example, cold in place recycling with an asphalt overlay of a 26 foot wide residential street in 2018 is estimated to cost \$80/linear foot. Other

activities such as sign installation, mail box replacement or resetting, topsoil or shoulder backup, and seed and soil supplements could result in additional costs. Additional costs are included in the CIP for storm pipe, curb, or sidewalk ramps as needed. These additional costs are reflected either in the linear foot price for the roadway in the CIP or as separate line items. Additional costs are incurred if residential driveway aprons are paved as part of a capital project.

Storm Pipe Improvements

Prior to a roadway being overlaid with new asphalt, the condition of the inlets and storm pipe is assessed either visually or by remote controlled camera. The CIP reflects any anticipated costs due to inlet and storm pipe replacement. New inlets set in place can cost \$3,000 each, less if just the top is being replaced. The cost of storm pipe replacement varies based on the length of pipe to be replaced, diameter of the pipe, the type of pipe material, and other work associated with the storm pipe replacement such as other utility relocation costs and if the above curb or sidewalk needs replaced. A typical 18 inch diameter high density polyethylene (HDPE) pipe installed will add about \$75/linear foot to the project cost plus roadway and curb restoration. Structural lining of an old corrugated 18 diameter pipe could cost \$100/linear foot..

Americans with Disability Act (ADA) Handicap Accessibility Sidewalk Intersection Ramp Improvements

In accordance with federal and state regulations, sidewalk intersection ramps are upgraded to current ADA standards. These upgrades are required whenever a road is paved or microsurfaced.

For roads to be paved, the concrete work is included in the CIP as a line item. The cost varies for each ramp depending on the existing grades and number of sidewalk blocks that need to be removed to reconstruct the ramp to the proper grades. \$3,745 is budgeted for each ramp that needs to be replaced. Truncated domes are required at these crossings. The Township Engineer may determine that it is technically infeasible to upgrade some ramps.

Traffic Signals:

Automated Red Light Enforcement (ARLE) Grant – Traffic Signal Optimization Project

Through ARLE, the Township will receive \$498,000 to improve performance and communication at all 20 of our traffic signals. The new system will monitor real-time traffic in the Township and staff will be better equipped to fine-tune the signals to changing traffic demands.

Green Light Go (GLG) Grant – West College Ave/Corl Street Pedestrian Accessibility Upgrade

Through Green Light-Go, the Township will be awarded \$176,084 to upgrade the traffic signal at the intersection of West College Avenue and Corl Street. The upgrades include full pedestrian movements, which are currently limited. This project will tie into the Township's Streetscape Project constructed in 2017 which will help make pedestrian traffic safer.

Green Light Go (GLG) Grant – Traffic signal vehicle detection upgrade

The Township will be awarded \$80,000 to upgrade a number of traffic signals to digital radar vehicle detection replacing ground loops or video detection making the signal operations more reliable.

PUBLIC WORKS EQUIPMENT

The following charts depict the capital equipment requested by Public Works Department during the term of the capital plan. Public Works equipment requests total **\$2.39 Million or 21.4%** of the **Capital Reserve Fund Requests**.

Each year a condition report is generated by the mechanic and road superintendent to assist with preparation of the equipment CIP. Based on the condition report and historical useful life of similar equipment, the CIP is prepared. The equipment fleet comprised of vehicles over \$25,000 has an estimated 2015 value of \$1,835,000. The annual straight line cost using the useful life of each piece of equipment is estimated at \$276,511 and is the basis of the Public Works Capital Fund Appropriation request. In addition to equipment replacement requests from the above fund, certain other equipment is requested.

New to the CIP is a request by Public Works in 2018 to fund the design and installation of a pilot project to install solar panels to supply energy to run the traffic signal and overhead LED luminaires at the intersection of Research Drive and Whitehall Road. In 2017 the Township participated in the Penn State University Sustainable Communities Collaborative. A student group of the EEG 437 class conducted a preliminary solar assessment and staff began discussions with a design consultant regarding the feasibility and cost to power traffic signals with solar power. This initiative is consistent with certain goals of the Strategic Plan.

New Equipment/Vehicles or Replacement Equipment/Vehicles under \$25,000

FERGUSON TOWNSHIP						
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS						
NEW EQUIPMENT PUBLIC WORKS						
30.400.430.750						
Description	2018	2019	2020	2021	2022	Total
Portable concrete mixer	2,630					2,630
Restistograph for tree health	5,120					5,120
Structural pallet rack for building number 4	3,000					3,000
Traffic signal solar pilot project	6,300					6,300
Model 1800 conveyor extension	2,970					2,970
Traffic signal LED replacements	5,510	5,790	6,070	6,380	6,700	30,450
Replace 2003 variable message sign	21,000	22,050				43,050
Pedestrian push button upgrades	5,510	5,790	6,070	6,380	6,700	30,450
Replace 2012 Kubota zero turn mower		9,590				9,590
New wing plow for loader for drifts	39,360					39,360
Fuel efficient vehicle for engineering	34,650					34,650
Trimble R1 GNSS receiver with RTX		3,460				3,460
UPS backup and signal cabinet modifications (College/Cort)				20,000	20,000	40,000
Total	126,050	46,680	12,140	32,760	33,400	251,030

Replacement Equipment

Public Works has a separate bank account for equipment greater than \$25,000 original cost. The account activity and balance are included in the following table. The funding is based on estimated current costs and inflated annually by 5%. The costs do not reflect any trade in value or sale value of the existing equipment, which could be substantial. The sale amounts are recorded as revenue in the capital reserve fund.

The details of the expenditures out of the sinking fund are itemized below.

FERGUSON TOWNSHIP					
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS					
PUBLIC WORKS EQUIPMENT SINKING FUND					
30.400.430.760					
Description	Age	Year	Additions	Deductions	Balance
Beginning Balance 12/31/2017					461,000
Annual Sinking Fund Contribution		2018	320,700		781,700
Replace 1997 Chaussees asphalt patch trailer	21	2018		33,600	748,100
Replace 1995 Chevy pickup truck	23	2018		36,750	711,350
Refurbish 2008 one person leaf collector	10	2018		89,120	622,230
Replace 2003 single axle with a tandem axle	15	2018		221,830	400,400
Annual Sinking Fund Contribution		2019	336,700		737,100
Replace 2003 F350 sign truck	16	2019		93,700	643,400
Annual Sinking Fund Contribution		2020	353,500		996,900
Replace 2004 Vermeer brush chipper	15	2019		71,660	925,240
Replace 2001 F550 plow truck	18	2019		104,740	820,500
Replace 2009 Tymco street sweeper	10	2019		319,730	500,770
Annual Sinking Fund Contribution		2021	371,200		871,970
Replace 1997 Bomag roller	23	2020		55,570	816,400
Replace 1997 towmaster trailer	23	2020		10,420	805,980
Replace 2007 Caterpillar skid steer loader	13	2020		127,340	678,640
Annual Sinking Fund Contribution		2022	371,200		1,049,840
Replace 2006 International single axle	15	2021		230,950	818,890
Replace 2001 Caterpillar backhoe	20	2021		158,020	660,870
Replace 2002 Interstate trailer	19	2021		35,250	625,620
Replace 2004 bucket truck	18	2022		159,540	466,080
Replace 2007 plow truck	15	2022		242,500	223,580
Replace 2011 T-tag plow truck	11	2022		153,150	70,430
					70,430
Total			1,753,300	2,143,870	
Subtotals by Year					
			EXPENDITURES		
			2018	381,300	
			2019	589,830	
			2020	193,330	
			2021	424,220	
			2022	555,190	
			Total	2,143,870	

PARKS AND RECREATION

The proposed five-year Capital Improvement Program Budget for Parks and Recreation (not including CRCOG) totals **\$1.32 million or 11.8%** of the **Capital Reserve Fund Requests**. The following projects are recommended to be included in the upcoming five years of the CIP.

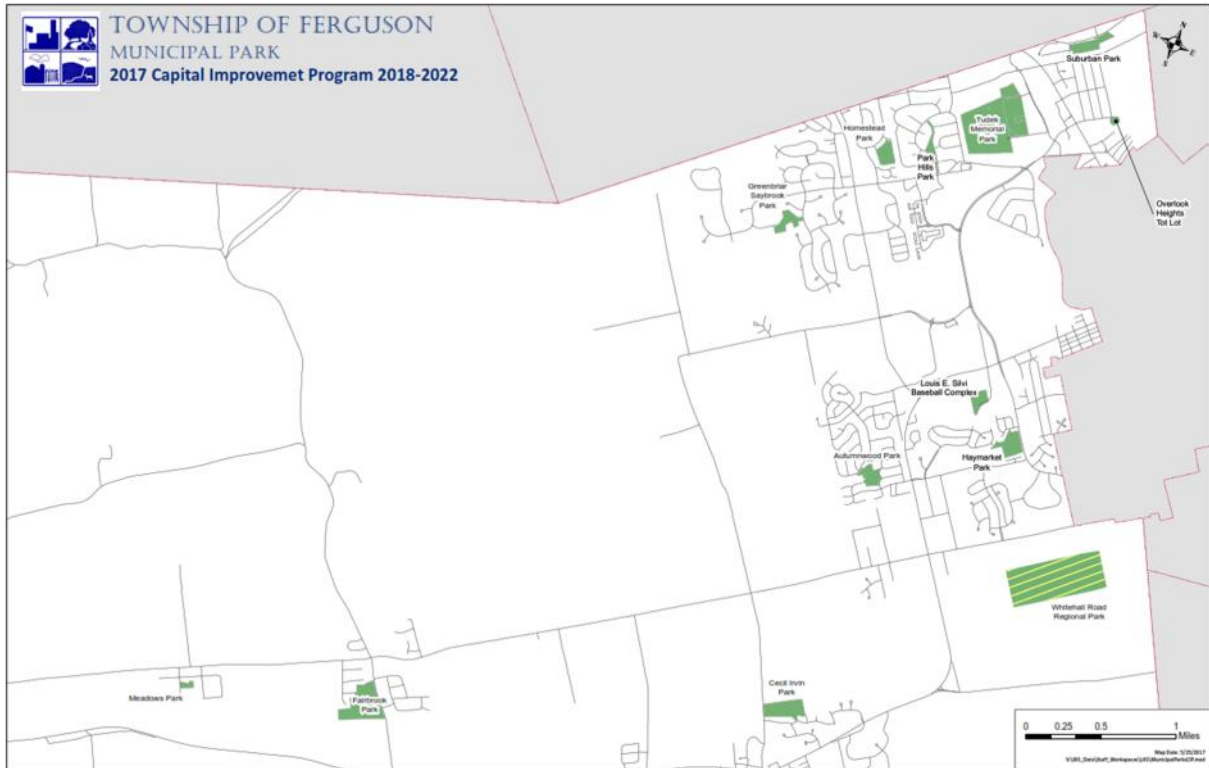
These projects represent the park improvements to meet the growing needs of the township's residents and are consistent with the Township's Recreation, Parks and Open Space Plan and each of the parks' master plans. The projects are proposed to be paid for through grant funds, parkland fee-in-lieu funds and general funds. It should be noted that the township is a partner in the Centre Region Parks and Recreation, Centre Region Parks and Recreation Authority, and in the various regional programs offered by the CRCOG. Long-term debt has been issued to renovate and expand the two regional pools and, therefore, that cost is now incorporated into the township's annual operating costs.

Three regional parks are also part of the regional parks program. Development of those parks has not been finalized. This CIP incorporates the annual capital costs to the township until financing has been finalized among the partnering municipalities. Total projected costs are of total capital expenditures plus the additional financing costs for the pools and parks.

Expenditures for Parks and Recreation have increased significantly over the past 10 years. Much of this increase in costs is associated with the development of three regional parks and the redevelopment of two regional aquatic facilities. At the municipal level, park development in accordance with approved master plans is extremely costly and many times relies upon additional grant funding.

Some of the related costs for these planned improvements may be offset by developer contributions to the parkland fee in lieu fund thus avoiding more impact on the General Fund. Nevertheless, funding for the second phases of development of the three regional parks has not yet been agreed to and could be a cost not factored into the projects found in this budget.

The 2018-2022 CIP includes two park master plans updates. Suburban Park master plan is recommended for updating due to the relocation of sanitary sewer lines and the opportunity to study and define the flood plain through the park. Fairbrook Park master plan is also recommended to be updated with the purpose of repurposing some of the turf maintained areas to low maintenance no mow areas and pollinator areas.



Strategic Plan Alignment

The Capital Improvement Plan seeks to advance the goals, objectives, and action steps as outlined in the Ferguson Township Strategic Plan. Over the next five years, several of the Strategic Plan items will be accomplished through the proposed expenditures in the Capital Improvement Plan.

⊗ **Objective 10.1: Promote environmental and social stewardship in parkland development.**

FERGUSON TOWNSHIP		
2018 – 2022 CIP CAPITAL EQUIPMENT DETAIL-CASH BASIS		
PARKS & RECREATION		
30.400.452.750		
Description	Year	Amount
Suburban Park Master Plan update	2018	35,000
Teener League field upgrades (carryover from 2017)	2018	104,000
Tudek Park Barn Roof/Barn Doors Replacement	2018	38,000
Tudek Park Phase 3a	2018	266,000
Drinking Fountain Replacements	2018	10,000
Playground Safety & Updates	2018	36,900
Playground Safety & Updates	2019	37,500
Cecil Irvin Park (gross)	2019	200,000
Fairbrook Park Master Plan Update	2019	22,500
Blue Course Drive Passive Recreation	2020	50,000
Suburban Park Improvements	2020	200,000
Tudek Farmhouse Roof Replacement	2020	7,000
Park Amenities	2020	14,000
Homestead Park Play Equipment	2021	65,000
Havmarket Park Restroom Facilities	2021	235,000
Total		1,320,900
Subtotals by Year	EXPENDITURES	
	2018	489,900
	2019	260,000
	2020	271,000
	2021	300,000
	2022	0
Total		1,320,900

2018	
Suburban Park Master Plan Update	\$35,000
<p>This item has been carried forward from 2017. The relocation of sewer lines by the University Area Joint Authority has initiated a conversation about potential enhancements to the park that could result in nitrogen and phosphorus credits to meet state pollutant reduction requirements. There is also a floodplain in the park that was not considered during the original master plan process. These considerations would necessitate a revised master plan prior to further development of the park.</p>	
Tudek Barn Roof Replacement/Replace Barn Doors	\$38,000
<p>The barn roof at the park should be evaluated. This is a metal roof that has been sealed once in the past 15 years. The actual age of the roof is unknown. The evaluation will provide the</p>	

Township will information on the need and timing of replacing the roof. While this is occurring, the barn doors should also be replaced.

Tudek Park Phase 3a	\$266,000
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Completion of Tudek Phase 3a includes the construction of two basketball courts, complete sidewalk connections, paving of the remainder of the parking lot, and the installation of landscaping. Phase 3a is located in the area just south of Herman Drive.

Drinking Fountain Replacements	\$10,000
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Placement of drinking fountains at township parks began nearly 20 years ago as new parks were developed and older parks refurbished. A replacement program is suggested since some of the fountains are older and parts not available. The replacement program would affect 6 parks and cost spread out over 3 years. Included in the cost is the fountain, concrete and some underground plumbing. This item would replace drinking fountains at Park Hills Park and Homestead Park.

Playground Safety & Update Program	\$36,900
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To provide for equipment upgrades and replacements in order to meet playground safety standards.

2019

Tom Tudek Memorial Park Waterline Upgrade and Fountain Replacement on Restroom Building	\$45,210
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The restroom building at the Tom Tudek Memorial Park is heavily used during the spring, summer and fall. Since construction, the restrooms have experienced a problem with the water pressure and volume available to operate the toilet facilities. An upsizing of the water line is the only solution. This project would be combined with the replacement of the drinking fountain located on the exterior of the restroom facility.

Playground Safety & Update Program	\$37,500
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To provide for equipment upgrades and replacements in order to meet playground safety standards.

Cecil Irvin Park – Phase II	\$200,000
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Continued park improvements in accordance with the park master plan. The township is seeking \$100,000 funding assistance from DCNR.

Fairbrook Park Master Plan Update	\$22,500
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Fairbrook Park is a 23-acre public facility with playing fields, play areas, picnic facilities, perimeter walking path, hard court and parking facilities. The park offers an opportunity to convert some of the highly maintained turf areas to low maintenance as no mow or pollinator areas. A revised master plan would evaluate the areas of the park for conversion as well as consider improving amenities.

2020	
Blue Course Drive Property – Passive Recreation	\$50,000
In 2016, the Township acquired 9 acres of property identified as Natural Area Conservation on the 2008 Ferguson Township Official Map. While no active recreational amenities are recommended on this site due to its unique infiltration properties, passive amenities such as hiking and biking trails are recommended to provide an enjoyable wooded area to recreate in an otherwise urbanized environment.	
Suburban Park Improvements	\$200,000
Based on the updated master plan, it is anticipated that the baseball field may be relocated and new playground equipment installed. The current field fencing was installed in the late 1970s. The baseball field is used by the State College Little League and the State College Pony League.	
Tudek Farmhouse Roof Replacement	\$7,000
The farmhouse is need of a roof. This will be funded through the Tudek Trust Fund.	
Park Amenities	\$14,000
Install or replace benches, trash containers, grills, dog waste stations	
2021	
Homestead Park Play Equipment	\$65,000
The Parks and Recreation Department is recommending updating and adding age appropriate play equipment and installation by a certified installer.	
Haymarket Park Restroom Facilities	\$235,000
The master plan for Haymarket Park includes construction of restroom facilities. This park is a highly-used, centralized park. Currently, the only township park where permanent restroom facilities are constructed is at Tom Tudek Memorial Park.	
2022	
Nothing budgeted for current year	