



1 CAPITAL IMPROVEMENT PLAN

INTRODUCTION & OVERVIEW

The introduction to the Capital Improvement Plan (CIP) is divided into three sections:

- What is a Capital Improvement Plan?
- Why Prepare a CIP?
- How Does the CIP Relate to the Master Plan?

WHAT IS A CAPITAL IMPROVEMENT PLAN?

A Capital Improvement Plan (CIP) is a multi-year program for expenditures by the City of Flint for rehabilitation, replacement, and balancing of the City's municipal infrastructure systems. Projects considered through the CIP process involve proposed investments in the City's infrastructure and facilities, such as police and fire stations, parks and recreation facilities, community centers, offices, roads and sidewalks, and utilities.

Definition of Capital Improvements

Capital improvements are permanent physical improvements, generally expected to have a normal life of ten years or longer. Equipment and objects needed for day-to-day use are generally not considered capital improvements. Smaller projects and projects that are intended to last for fewer than ten years are funded through the City's operating budget.

CIP and Budgeting

A CIP is typically prepared and adopted annually by the Planning Commission and is presented as a recommendation to the Mayor and the City Council. Each year, the plan identifies the physical needs of the City's departments, estimates the costs of proposed projects, and recommends expenditures and sources of funding for priority capital improvements.

As such, the CIP plays an integral role in the process of formulating the City's annual capital budget.

20 Year Horizon

The Flint CIP is a 6-20 year plan of programmed projects for the City's municipal infrastructure systems. The first two years of this plan should form the basis for the City's two-year Capital Approval of annual budgets allocates funds to undertake projects in this period, thus beginning the implementation of the CIP. In addition, capital projects that will need to be implemented between years 7 and 20 are also included to provide a basis for future updates to this CIP.

Given the uncertainty around the availability of funds primarily tied to the budgets associated with water and sewer revenue, many of the necessary improvements that are planned in the 6-year CIP period are ultimately considered unfunded in this CIP.

BENEFITS OF THE CIP

- Assist in implementation of the Master Plan.
- Identify both short-term and long-term capital expenditures to allow budgeting.
- Determine regular maintenance needs for City facilities so they remain viable.
- Provide for a more effective evaluation of alternatives and solutions than the crisis-decision process.
- Enhance opportunities for grants by allowing for long-term planning.
- Provide the ability to stabilize debt and consolidate projects to reduce borrowing costs.
- Serve as a public relations and economic development tool.
- Allow for a focus on preserving infrastructure while ensuring efficient use of public funds.
- Identify actual infrastructure needs of the City, including cases where additional funding is required beyond what is available locally.
- Provide opportunities for cooperation between departments and other units of government, such as Genesee County and Flint Community Schools, by pooling resources to reduce costs in some instances.

CAPITAL IMPROVEMENT PLANNING IN FLINT

The City of Flint has been significantly impacted by job losses and population loss, with a 21% decline in population between the 2000 and 2016 estimates. The loss of jobs and population and decline in local tax revenue and state-shared revenues has had a significant impact on the City’s finances. The City returned to state receivership in December 2011, as a result of consistent deficits in the General Fund, a decline in pooled cash, poor budgeting practices, and unfunded liabilities for retiree benefits.

Significant progress has been made in addressing the financial issues leading to the assignment of an emergency manager, as the \$19.1 million deficit at the end of FY12 had been eliminated by the end of FY15, largely as the result of a \$7 million emergency loan.

On April 29th, 2015 the Emergency Manager notified the Governor of Michigan that the financial emergency in Flint had been resolved. At that time, the Governor relieved the Emergency Manager of his responsibilities and a Receivership Transition Advisory Board was created to oversee the transition of city affairs, to its charter-designated officials. For the first time in nearly a

decade, the City began FY16 with positive balances in all of its funds. Cash position had drastically improved, and the FY16 and FY17 Budgets are realistically balanced.

Looking forward to FY18 and beyond however, the City will continue to face significant challenges as City expenditures (expenses) are projected to outpace any increases in revenues. This will lead to operating deficits in many of the City funds. Water rate increases and the renewal of two City millages (Public Safety and Parks and Recreation), will have the ability to assist the City’s budgets over the long-term but even with this funding additional sources of revenue will be required or decreases in operating costs must occur for the City to recognize any progress towards improving its capital.

As a result of the spending freeze and postponement of capital improvement projects in many of the City’s funds, the 2017-2022 CIP update largely repeats the City’s prior Capital Improvement Plan with projects postponed by one fiscal year. Emerging capital improvement projects have been added and all existing projects have been update to reflect any changes in priority or estimated cost.

A Common Issue – Municipal Revenue Sharing Decline

The City of Flint, like many

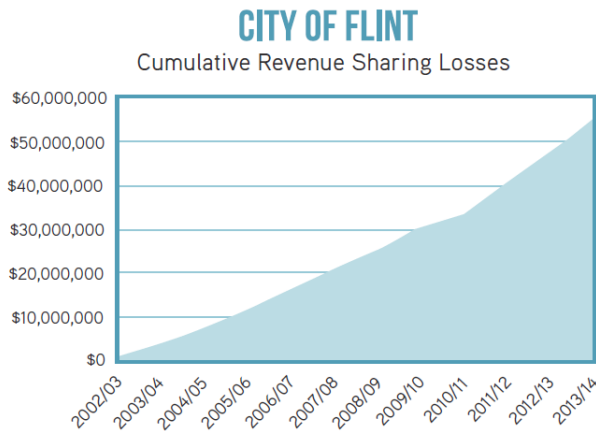
municipalities in Michigan has been severely impacted by the recession.

Furthermore, many local governments in Michigan have witnessed a decrease in property tax and income tax revenues while seeing the level of state- shared revenue reduced.

Since 2003, the City of Flint has lost over \$60 million in state-issued revenue. These dollars, if received, would have provided local officials significant relief to apply towards its operating budgets while also enabling the ability for capital improvements to occur.

In established communities like Flint, budget cuts have led to deferred maintenance on existing infrastructure. This has often resulted in deterioration that now requires significant expenditures to catch up.

The challenge to maintain services in the midst of shrinking resources and increasing costs has put pressure on City government to make its limited capital resources work more efficiently. Many of the improvements listed in the CIP are a direct response to both the years of neglect due to severe budgetary issues and the fact that there was not a Master Plan or comprehensive CIP developed for the City in decades.



Rising Cost of Deferred Maintenance

Providing ongoing maintenance, such as resurfacing streets and repairing or replacing leaky roofs, is vital for maintaining the condition of assets. When maintenance is not fully funded, it contributes to deferred maintenance and capital costs. The City has not funded required maintenance on most facilities due to tight budgetary constraints and competing priorities. As a result the City has a large backlog in deferred capital projects which is likely to significantly increase as more information is collected on the actual condition of City facilities. Compounding the problem, as assets continue to deteriorate, the cost of repair will exponentially increase and can result in peripheral damage. For example, deferring roof replacement could later result in needing to replace the roof structural members, walls, and floor of a building.

City Budget

Making progress on the budget deficit has required difficult decisions and sacrifices, including dedicating minimal resources to capital improvements beyond emergency repairs. The FY16 and FY17 budgets were balanced through a mixture of revenue increases, significant expenditure decreases, and steps taken to reduce legacy costs. Past revenue increases included increases in water and sewer rates, passage of a 6 mill property tax for police and fire, establishment of a special assessment district for street lighting, and implementation of a fee sufficient to cover the cost of waste collection. Expenditure reductions included elimination of numerous city employees, compensation decreases, and the restructuring of health and retirement benefits for current employees and retirees necessary to develop a credibly balanced spending plan. The City continues to

work towards a process of realistic budgeting that will enable capital needs to be planned for, rather than reacted to.

Other Influencing Factors

In addition to adopted City policy, including the recommendations of the Master Plan, several factors and recent or on-going initiatives have shaped the development of the CIP. These influencing factors include:

- Most City facilities are in urgent need of upgrades, repair, and/or replacement of critical components, such as HVAC systems, roofs, parking lots, sidewalks, plumbing and electrical systems, security upgrades, lighting, windows, etc., and there are several buildings that are closed and not being used. Completion of some energy efficiency and other projects may result in long-term net savings but require initial capital outlays. The CIP calls for several facility assessments to determine the future viability of facilities and prioritize where investments should occur.
- Continued improvements to the City’s water system are needed, not necessarily to mitigate the factors from the primary source transfer, but to maintain and replace

water system components that are in dire need of improvement or replacement regardless of the water source. Previous studies have shown the current system to have very low efficiency, with losses up to \$2.0 million annually.

-The street system in Flint is severely deteriorated. A Pavement Surface Evaluation and Rating System (PASER) study in 2014 found less than 1% of local streets to be in good condition. Estimates for repair of local streets are estimated at \$24 million annually to upgrade to “good” condition.

-Sidewalks throughout the City are in unsatisfactory condition and have an estimated unmet need of an estimated \$65 million for repairs. These sidewalks are old, cracked, have separations and heaving that are potential safety hazards, creating accessibility issues for persons with certain disabilities. A city-wide sidewalk audit was completed in 2017 and the data is currently being analyzed.

-The City owns and operates several dams that are critical to the water supply for the City, as well as for recreational uses. All of them require varying amounts of rehabilitation and repair, with some being

mandated to be removed as they are not viable and provide no purpose given the current drinking water system design.

-Inflow and infiltration (I/I) into the sanitary sewer results in significant amounts of water being treated that is clean. Much of the I/I is at manholes and perforated manhole covers in floodplain areas that are regularly under water.

-Housing diversity is limited, particularly for multi-family housing. Much of the housing stock (82%) was built prior to 1970 and 14.1% of parcels contain houses in poor or substandard condition.

-Many residential parcels are vacant lots (22%) and there are thousands of blighted parcels in the City.

-Flint Community Schools (FCS) suffers from budget problems, outdated facilities, and loss of students. Enrollment for the '14-'15 academic year was roughly 5,700 students, 86% lower than the peak numbers in the late 1960's. A number of FCS schools have been closed and many of them currently sit vacant awaiting demolition or reuse in some manner.

-The City park system, including over 70 facilities and 1,800 acres, suffers from severe neglect. Lack of regular maintenance

and upkeep and elimination of most staff and programs has resulted in many facilities being closed. Equipment at most parks is severely outdated and does not meet current design and safety standards, with many parks plagued by trash and graffiti. 34 parks are currently cared for through volunteer-led efforts including park tenders and park adopter programs. This helps reduce the overall cost of trash abatement, but not mowing costs as these groups do not mow many of the city's parks. Additionally, there is currently .5/FTE focusing on parks and recreation activities for the city.

**WHY PREPARE A CIP?
THE BENEFITS OF CAPITAL IMPROVEMENT PLANNING**

Over time, public facilities need major repair, replacement, or expansion and maintaining and upgrading a community's capital assets requires significant financial investment. This investment must be weighed against other community needs and analyzed in light of community goals. The City of Flint, like many cities, is under pressure to make efficient use of capital resources and must make difficult choices. There are more needs than can be satisfied at once, and the selection of one investment over another may shape the development of the City for years to come.

Capital improvement planning is a valuable tool to ensure that choices are made wisely. The City's development goals are implementing, in part, by the careful provision of capital facilities. The benefits of this systematic approach to planning capital projects include:

Focused attention and coordination with community goals, needs, and capabilities – By developing a CIP, capital projects can be brought into line with the City's long-range plans by balancing identified needs with financial capacities. Considered individually, a building renovation, park system improvement, and street widening may all be viable projects, but each project may look quite different when, in the course of the CIP process, it is forced to compete directly with a number of other projects for limited funds.

Optimizes use of the taxpayer's dollar – The CIP helps the Mayor and City Council make sound annual budget decisions. Careful planning of capital improvements helps prevent costly mistakes. In addition, capital planning allows the City to save money in several other ways. For example, investors in municipal bonds tend to look more favorably on communities that have a CIP; if bond financing is selected for a capital improvement project, the

City may realize significant savings on interest.

Guides redevelopment and growth – The location and capacity of capital improvements shape the growth and redevelopment of the City. City decision-makers can use the CIP to develop well thought out policies to guide future land use and economic development that are consistent with the implementation of the Master Plan.

Encourages coordination between departments – Participatory efforts of multiple City service units in the planning and coordination of capital improvement planning reduces scheduling conflicts and ensures that high priority needs are addressed before those of a lower priority. In addition, the CIP can be used to promote innovative management techniques and improve governmental efficiency and effectiveness by combining projects within the same area to provide a lower overall cost than if the projects were constructed separately.

Improves the basis for intergovernmental and regional cooperation – Capital improvement planning offers public officials of all governmental units (City of Flint, MDOT, Genesee County, Flint Community Schools, Genesee County Metropolitan Planning

Commission, Mass Transportation Authority, etc.) an opportunity to plan the location, timing, and financing of improvements in the interest of the community and region as a whole. Advance planning also allows these entities to seek funding opportunities that may have limited availability otherwise and provide the potential for coordination/ cost-sharing for projects that span community borders and jurisdictions of the various governmental entities.

Maintains a sound and stable financial program-

Unplanned emergency expenditures can endanger the financial well-being of the City, as the lack of ability to plan generally leads to higher costs. Sharp changes in the tax structure or bonded indebtedness may be avoided when construction projects are planned in advance and scheduled at intervals over a number of years. When there is ample time for planning, the most economical means of financing each project can be selected in advance. The CIP can help the City avoid commitments and debts that would prevent the initiation of other important projects at a later date.

Enhances opportunities for participation in Federal or state grant programs-

Preparing and regularly updating a CIP improves the City's chance of obtaining aid through Federal and

state programs that provide funds for planning, construction, and financing of capital improvements. By knowing which projects are planned, eligibility can be determined and specific grants sought for eligible projects. The CIP should include projects that can be started quickly by having construction documents ready should grant funds become available.

Provides the City with an accurate account of its capital challenges -

Creation of a CIP allows the City of Flint to face a "reality check", as it begins to assess the significant amount of challenges associated with fixing its capital. The CIP takes stock of the actual needs, even if the funds to fix them do not yet exist.

LEGAL BASIS FOR THE CAPITAL IMPROVEMENT PLAN

State of Michigan

The State of Michigan provides for the development and use of a capital improvement plan in the Municipal Planning Act (Section 125.3865, Act 33 of the Public Acts of 2008).

"To further the desirable future development of the local unit of government under the master plan, a planning commission, after adoption of a master plan, shall annually prepare a capital improvements program of public structures and improvements, unless the planning commission is exempted from this requirement by charter or otherwise."

If the planning commission is exempted, the legislative body either shall prepare and adopt a capital improvements program, separate from or as a part of the annual budget, or shall delegate the preparation of the capital improvements program to the chief elected official or a nonelected administrative official, subject to final approval by the legislative body.

The capital improvements program shall show those public structures and improvements, in the general order of their priority, which in the commission's judgment, will be needed or desirable and can be

undertaken within the ensuing 6-year period. The capital improvements program shall be based upon the requirements of the local unit of government for all types of public structures and improvements.

Consequently, each agency or department of the local unit of government with authority for public structures or improvements shall upon request furnish the planning commission with lists, plans, and estimates of time and cost of those public structures and improvements."

City of Flint

In addition, the City of Flint Charter (Section 4-504) reinforces the City's planning responsibility, with Section 4-505 calling for periodic review of the plan:

4-504 Comprehensive Plan – "The Mayor shall propose and the City Council, after review by the Planning Commission, shall approve, with the modifications the Council deems necessary, a comprehensive plan of policies for the social, economic and physical development and conservation of the City."

4-505 Periodic Review of Plan –

“After approval of the plan, the Mayor shall annually propose any amendments necessary to keep the plan current; and the City Council, after review by the Planning Commission, shall consider the Mayor’s proposed amendments and make the modifications in the plan that it deems necessary.”

CIP & ANNUAL BUDGET PROCESS

The City’s Annual Budget itemized and appropriates the funds needed for all municipal purposes. It is generally recommended that budgets separate out capital improvements from operating expenses to ensure a clear demarcation between the two.

The **Operating Budget** includes the day-to-day operational expenses of the City, such as salaries, supplies, and expenses for programmed activities.

A **Capital Projects Budget** would include the anticipated capital project costs. The first two years of projects contained in the Capital Improvement Plan should be the basis for formulating the Capital Projects Budget.

The City needs to strive to maximize resources by maintaining a balance between operating and capital budgets. A continuous relationship exists between the CIP and

the annual budget and a direct link can be seen between the two documents, as there should be in a strategic planning environment. Budget appropriations lapse at the end of the fiscal year as the operating budget is funded with recurring annual revenues such as taxes, licenses, fines, user fees, and interest income.

Linking Planning to the Budget

The CIP plays a significant role in the implementation of a Master Plan by providing a link between planning and budgeting for capital projects. The CIP process precedes the budget process and is used to develop the capital project portion of the annual budget.

Approval of the CIP by the Planning Commission does not mean that they grant final approval of all projects contained within the plan. Rather, by approving the CIP the Planning Commission acknowledges that these projects represent a reasonable interpretation of the upcoming needs for the City and that projects contained in the first year of the plan are suitable for inclusion in the up-coming budget to be considered and ultimately approved by the City Council.

Priorities vs. Funding Availability

Priority rankings do not necessarily always correspond to funding sequence. For example, a road-widening project which is ranked lower than a park project may be funded before the park project because the road project has access to a restricted revenue source, whereas a park project may have to compete for funding from other revenue sources. A project’s funding depends upon a number of factors – Not only its merit, but also its location, cost, funding source, and logistics.

City Funds with Capital Spending Capacity

- 101- General Fund for limited capital improvements
- 402 – Public Improvement Fund (Millage) for capital building improvements
- 202–Transportation (major Roads) fund
- 203-Transportation (local roads) fund
- 590 – Utilities (sewer) capital funds
- 591 - Utilities (water) capital funds

RELATIONSHIP BETWEEN THE CIP & CITY MASTER PLAN

The completion of the City’s *Imagine Flint* Master Plan in late 2013 has formed the basis for Flint’s revitalization. The Master Plan is the first in over 50 years and was the result of collaboration between City leaders, residents, and business owners to develop a vision for Flint’s recovery efforts. The CIP is intended to complement the Master Plan to ensure infrastructure can be provided to meet the goals of the Master Plan, with a clear definition of needs and priorities to assist in budget development annually. However, it must be noted that the City’s capital needs far exceed available resources, even with additional funding from non-traditional sources (grants, donations, etc.). The condition of the facilities will require difficult decisions to be made regarding prioritization of CIP projects. Comprehensive planning influences the programming of capital improvements. As noted above, state law reinforces that link by requiring that the Planning Commission annually prepare a CIP to support and implement Master Plan recommendations.

The City also provides a strong connection between the comprehensive plan and capital improvements in the form of short-range

implementation strategies. In addition to the Master Plan, several other planning documents provide implementation recommendations that link the future vision of the community to relatively short-term actions. These documents include, but are not limited to:

- Parks & Recreation Master Plan (2013)
- Individual Parks Master Site Plans
- Flint Parks Assessment & Amenity Inventory (updated 2016)
- Reimagining Chevy in the Hole
- Flint River Restoration Plan
- Flint Sprint Street Lights Project
- Flint Sprint Energy Audit
- Transportation Improvement Plan (TIP)

CIP as a Planning Document

The CIP is a planning document that serves to consolidate necessary projects associated with the City's various infrastructure asset areas. These needs are gathered primarily from findings of the City's master planning efforts and staff identification through the operations and maintenance of the City's facilities and systems. The CIP provides a methodology for addressing the infrastructure needs to

allow staff to determine anticipated funding sources and schedules for the projects necessary to meet the needs, based on priority, and the availability of the financial and staffing resources to perform these projects.

Annual Update Process

The CIP is a dynamic and needs to be reevaluated at least annually. Each year all projects included within the CIP should be reviewed, a call for new projects made, and adjustments made to existing project lists arising from changes in the amount of funding required, conditions or timeline. A new year of programming is also added each year to replace the year funded in the annual operating budget.

The CIP will continue to develop over time. Greater attention shall be devoted to provide more detailed information about individual project requests, program planning, fiscal analysis, fiscal policies and developing debt strategy.

Need for Further Study

A vast majority of Flint's infrastructure projects are not new infrastructure – it is the need to replace or rehabilitate and adjust the current aged facilities. The infrastructure in place supported a significantly higher residential population and industrial user base, so the infrastructure is generally prepared to support the "rebirth" of the City as described in the Master Plan.

Due to the water crisis as previously noted, it's important that the City continue to research, investigate and ultimately conclude the severity and depth of the water infrastructure problem. A series of technical measures must be taken to properly address the scale of the problem and those include collecting, analyzing and reporting on the findings. The extent of damage that ultimately will be found to have occurred to Flint's infrastructure because of the Flint River switch must be recognized and publically discussed. These findings and dialogue will ultimately position the City to accurately understand the challenges and the amount of funding necessary to fix them.



2 CAPITAL IMPROVEMENT PLAN

READING & USING THE CIP

2017-2022

CIP POLICY

This CIP outlines a schedule of public expenditures over the ensuing six-year period. The CIP provides for large, physical improvements that are permanent in nature, including the basic facilities, services, and installations needed for the functioning of the community. These include transportation systems, parks, utilities, municipal facilities, and other miscellaneous projects. The CIP provides a list of high value capital budget items or projects for inclusion in the proposed Capital Budget of the City's Annual Budget Document.

Standards for Inclusion

The City's CIP is a document that initiates and tracks high expenditure capital projects, purchases and programs. To qualify for inclusion in the CIP, a single project or a program of projects comprised of components of a common infrastructure or capital system (e.g., neighborhood parks system, annual street program, etc.) must meet certain standards, which are to be set by the Planning Commission with assistance from City staff.

General guidance on the standards for an item's inclusion in the CIP includes that the project:

- Is consistent with an adopted or anticipated component of the Master Plan, a state or Federal requirement, or a City Council approved policy;
- Constitutes a permanent, physical, or system improvement in excess of an established cost or significant equipment purchases in excess of an established cost; or,
- Adds to the value or capacity of the infrastructure of the City.

Unfunded Needs

The CIP cannot address all of the capital expenditure needs for the City. As with other communities throughout the region, state, and nation, the City’s infrastructure systems have needs that are mounting at such a rate that they cannot be addressed within the span of a six- year CIP. Some identified needs cannot be addressed because of limits on the annual amount of available funding or staffing resources. Others cannot be addressed because of a lack of any applicable funding source, or perhaps policy or legal restrictions. Furthermore, given the current financial situation created due to legal rulings, the City of Flint finds itself with very little-to-no room for infrastructure upgrades outside of the immediate water systems.

As a result, there are needs whose solutions cannot be implemented within the CIP. Rather than discard or ignore these items, they are included in the CIP as unfunded needs and are shown as being unfunded, with many of them shown outside of the 6-year window. This information will provide guidance to City staff in examining the limitations and restrictions currently in place and to seek alternative methods to achieve solutions.

Operational & Maintenance Needs

Many cities include within their annual budget an Operations and Maintenance (O&M) Budget and a Capital Projects budget. Projects that are considered operational, maintenance, or recurring are typically excluded from the CIP, but are captured in the O&M Budget portion of the Annual City Budget Document.

In this CIP, some O&M projects are included in the CIP. A separate O&M budget should be developed in future years to include the items that have a regular schedule for maintenance or replacement, such as:

- Minor bridge rehabilitation;
- Minor street repairs and filling of potholes;
- Replacement of roofs, doors, windows, etc.;
- Parking lot reconstruction;
- Computer system upgrades;
- Security system upgrades;

Capital Projects Budget

Approval of the CIP by the City Council does not mean that the Council grants final approval or authorization for all the projects contained in the plan. Rather, by approving the CIP Council acknowledges that they agree that these projects represent a reasonable interpretation of the upcoming needs for the City, with the projects contained in the first two years of the plan being the basis for the City’s next Capital Projects Budget. Until a project is contained within an approved annual budget and funding is identified, projects and schedules for each included in the CIP are only guides that are likely to be changed as conditions change.

ASSIGNING PRIORITY

The following classification system has been used to prioritize capital improvement needs and is used in the list of CIP projects in this document:

PRIORITY 1 – URGENT

Urgent, high-priority projects that should be done if at all possible.

These include projects that are required to comply with a Federal or state requirement; projects that would address an emergency or remedy a condition dangerous to public health, welfare, and safety; projects that would provide facilities for a critically needed community program; projects needed to correct an inequitable distribution of public improvements in the past; and projects vital to the economic stability of the City. A special effort is made to find sufficient funding for all of the projects in this group, realizing that this is not feasible given the significant needs.

PRIORITY 2 - IMPORTANT

High-priority projects that should be done as funding becomes available.

These include projects that would benefit the community and projects whose validity of planning and validity of timing have been established.

PRIORITY 3 – DESIRABLE

Worthwhile projects to be considered if funding is available.

These are projects that are adequately planned, but not absolutely required, and should be deferred to a subsequent year if budget reductions are necessary. These projects may end up being included within a funded portion of the CIP if alternative sources of funding are identified.

CIP Project Narratives

The CIP includes an extensive inventory of capital improvement projects proposed for inclusion in the proposed Capital Budget of the City’s Annual Budget Document. As a planning document with a direct impact on the physical makeup of the city, the projects included in the CIP should support long-term City policy established in the Master Plan.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

Project Completed in

2016: 

Project Underway from

2016: 

New Project Added from

2016: 

Project Removed from

2016: 

Imagine Flint Master Plan for a Sustainable Flint

The Master Plan utilizes an innovative “placemaking” approach, which defines desired places within the City. While traditional approaches to city planning are often concerned with the specific “uses”, the Land Use Plan builds on the idea of establishing unique and desirable places. The Place-Based Land Use Plan is the central component of the Master Plan, the implementation of which individual capital projects should work toward.

Master Plan Place Types

The Land Use Plan establishes 12 distinct place types within the city that provide for various land uses and types of places, essential for creating a harmonious and inviting community in which to live, work, and visit. The following summary highlights the intent of each place type. Chapter 4: Land Use Plan of the Master Plan provides detailed descriptions accompanied by a series of implementation strategies for each place type.



Community Open Space

Community Open Space areas are designated where parks, open spaces, and environmental features predominate. These areas are defined by: large natural features, such as large greenways along the Flint River, Swartz Creek, Gilkey Creek, and Kearsley Creek; areas around Thread Lake, Kearsley Reservoir, and Flint Park Lake; large wooded areas and urban forests; and, other City parks and open spaces.



Green Neighborhood

Flint's Green Neighborhoods are areas where previously vacant or underutilized properties have been repurposed. They have become low-density, residential neighborhoods with a significant amount of land dedicated to green uses, community gardens, small-scale urban agriculture, and small open space areas.



Traditional Neighborhood

The Traditional Neighborhood is the building block of the Flint community. It is where most people live and families are raised, in primarily detached single family homes. Flint's Traditional Neighborhoods are supported by various other uses including schools, community centers, religious institutions and parks.



Mixed Residential

Mixed Residential areas are generally concentrated around Downtown, providing a local population to help patronize Downtown businesses. Mixed Residential areas are also situated along busy corridors, providing an opportunity for transit-oriented development and more robust commercial services.



Neighborhood Centers

Neighborhood Centers are a focal point of Flint's neighborhoods and are distributed throughout the City. Neighborhood Centers are primarily located at the intersection of busy streets that provide ease of access for nearby residents and contribute to the overall activity of the area.



City Corridor

City Corridors are situated along Flint's busiest roads, providing areas for a range of activities on parcels easily accessible by automobiles and serviced by transit. City Corridors leverage the economic potential of traffic and help minimize land use incompatibilities by containing a variety of uses in manageable areas throughout the City.



Downtown

Downtown is a dense and vibrant mixed use area near the geographic center of the City along Saginaw Street, between the Flint River and Interstate 69. Downtown is, and should continue to be, a compact area consisting of a variety of uses that together provide and foster an active pedestrian-oriented area.



Civic/Cultural Campus

As home to Mott Community College, the Flint Cultural Center, and the Flint Central High School campus, the Civic/Cultural Campus is a unique area of the City. The Civic/Cultural Campus is a unique place type consisting entirely of institutional and public uses and any redevelopment within this place type should consist of uses that complement or strengthen the existing campus.



University Avenue Core

Flint's University Avenue Core is a unique area of the City, home to Hurley Medical Center, Kettering University, Atwood Stadium, and General Motors Tool and Die. These anchor institutions form the central component of a high-intensity district outside of Downtown Flint.



Commerce and Employment Centers

Commerce and Employment Centers are areas where the development pattern is focused around a community anchor such as a large employer, regional commercial center, or a cluster of smaller employment-related uses. Commerce and Employment Centers can attract a significant number of workers and visitors from outside of the community.



Production Centers

Production Centers are designated where the City's major industrial centers and economic generators exist such as GM's Flint Truck Assembly and portions of the Buick City site. These intense industrial uses are capable of generating considerable noise, traffic, and other nuisances and should be separated from residential and commercial areas.



Green Innovation

The deindustrialization of the City has resulted in a significant population decline and areas of Flint that once consisted of fully built out neighborhoods are now vacant. Areas of Green Innovation represent significant redevelopment opportunities that hold the potential for a variety of eco-friendly and sustainable solutions to repurpose large vacant areas and help reinvent the City.

CIP ORGANIZATION

Several areas of the Master Plan identified infrastructure/capital projects and the CIP maintains the same chapter structure to enable a one-to-one comparison between CIP projects and Master Plan policy. The CIP is organized into the following chapters:

- Chapter 1 – Introduction & Overview
- Chapter 2 – Reading & Using This CIP
- Chapter 3 – Response to the Flint Water Crisis
- Chapter 4 – Housing & Neighborhoods;
- Chapter 5 – Transportation & Mobility;
- Chapter 6 – Environmental Features, Open Space, & Parks;
- Chapter 7 – Infrastructure & Community Facilities;

- Chapter 8 – Economic Development & Education; and,
- Chapter 9 – Public Safety, Health, & Welfare.
- Chapter 10 – Moving Forward

To assist with implementation of the Master Plan and align CIP projects with long-term City policy, the CIP has been organized around the core chapters of the Master Plan. The CIP includes several sections with corresponding Master Plan chapters, including those in the above table.

Grouped CIP Projects

Within each section, CIP items have been grouped based on the various sections and sub-headings contained within the Master Plan. This will enable a one-to-one comparison between City policy identified in the Master Plan and the projects identified in the CIP.

In some sections the categories are further subdivided to ensure there is clear delineation of needs for departments. This is most significant for the Infrastructure & Community Facilities section, which is subdivided for City Hall, miscellaneous City facilities, Water Department, and Sewer Department subsections in the CIP.

Information Sources

Capital projects and costs listed were obtained from a variety of sources, including:

- Lists of capital projects provided by various departments;
- Applications prepared by the City for various grants; and,
- Previous studies prepared by the City, other governmental entities, or consultants on behalf of either.

In some cases, projects listed have had very little detail prepared and cost estimates have been approximated based on the anticipated scope of the project. It is very likely that many of the costs noted for various projects will vary, sometimes considerably, when additional information or analysis is obtained.

CIP ORGANIZATION	
CIP CHAPTER	MASTER PLAN CHAPTER
4	Chapter 5 – Housing & Neighborhoods
5	Chapter 6 – Transportation & Mobility
6	Chapter 7 – Environmental Features, Open Space, &
7	Chapter 8 – Infrastructure & Community Facilities
8	Chapter 9 – Economic Development & Education
9	Chapter 10 – Public Safety, Health & Welfare

READING CIP PROJECTS

All projects have the following information provided:

- **Project Name** – a short description of the project.
- **Project Narrative** – provides additional detail about each project that is known at the time of the CIP completion. The exact extent of the scope of all projects may not be known at this time but the narrative does give additional detail that is not always obvious in the Project Name.
- **Priority** – as discussed previously, all projects were given a priority based on their need. Priority is provided for projects on a case-by-case basis and there is no ranking between projects either within a department or between departments. In considering the priority, a number of factors were considered. Of primary importance was how the project might assist in implementation of the Master Plan, as well as other plans (e.g., Strategic Plan), provide a long-term cost savings or other similar benefit (e.g., roof replacement/repair prevents interior water damage to a building), or is required as a regulatory requirement (e.g., dam repair required by the state).

Priorities are stated as:

1. **URGENT:** projects that should be done if at all possible
2. **IMPORTANT:** projects that should be done as soon as funding is available
3. **DESIRABLE:** worthwhile projects that can be deferred if needed

Projects have also been ordered within each priority group such that the most important projects are at the top of the list and least important at the bottom. For example, various roadway improvements are listed as ‘2 – IMPORTANT’, but some projects should be implemented ahead of others within that priority group based on their location and the place type they serve.

- **Total Cost** – the total cost of the project, which may be a one-time cost, multi-year, or continuous. For continuous cost projects (i.e., projects such as watermain replacements done every year on a 20-year cycle), the total cost shown is for the 20-year CIP duration.

- **City Cost Share** – the portion of the total cost assumed to be the responsibility of the City.

- **Non-City Funds** – funding provided by grants, donations, or other sources not part of the City’s budget.

With regard to City cost share, unless a non-City fund source such as a grant has been identified and secured, it is assumed that the City will be responsible for funding 100% of the cost of the project.

CIP Project Spreadsheet

The information in the following CIP tables is a summary of the CIP Project Spreadsheet included at the end of the CIP. The project spreadsheet includes similar information in a slightly different format.

Many “unfunded” projects are likely to be included in a future CIP update and may have funding from alternate sources. All projects contained on the CIP spreadsheet are included in the tables below, with some multi-phase projects on the spreadsheet lumped together into one project (e.g., design engineering, construction, and construction engineering for road projects are split into three phases on the spreadsheet but combined below).



3 CAPITAL IMPROVEMENT PLAN RESPONSE TO THE FLINT WATER CRISIS

Flint Water Crisis

On April 25th 2014, the City of Flint formally transitioned its primary source of drinking water by connecting to the Flint River. As a result of this switch the corrosive nature of the water entering the distribution system from the City's water treatment plant has led to an accelerated aging and shortened usefulness of the City's water infrastructure.

The most damning result of this switch however has been the exposure of lead to residents of Flint and in particular, children of Flint. The treated Flint River water subsequently resulted in the degradation of the micro/bio-film that protects the water service lines from leeching. These lines run from the street into a

resident's home and supply the residence with water to live. Thus, the damaged service lines resulted in lead leeching, with Federal, State, and local testing all dismissing the initial results of elevated lead levels in Flint homes. It wasn't until October 2015 that the State of Michigan publicly acknowledged for the first time that elevated levels of lead were showing up in Flint's drinking water.

Eventually, the result of this corrosive water reaching thousands of homes and residents of Flint resulted in a formal State of Michigan declaration of emergency on January 5th, 2016 followed by a federal declaration of emergency on January 16th, 2016.

Identifying the extent of damage to the water distribution system and the location of lead service lines is a critical priority and a necessary step before replacing and repairing the affected infrastructure occurs. This must occur to fully resolve the ongoing public health emergency.

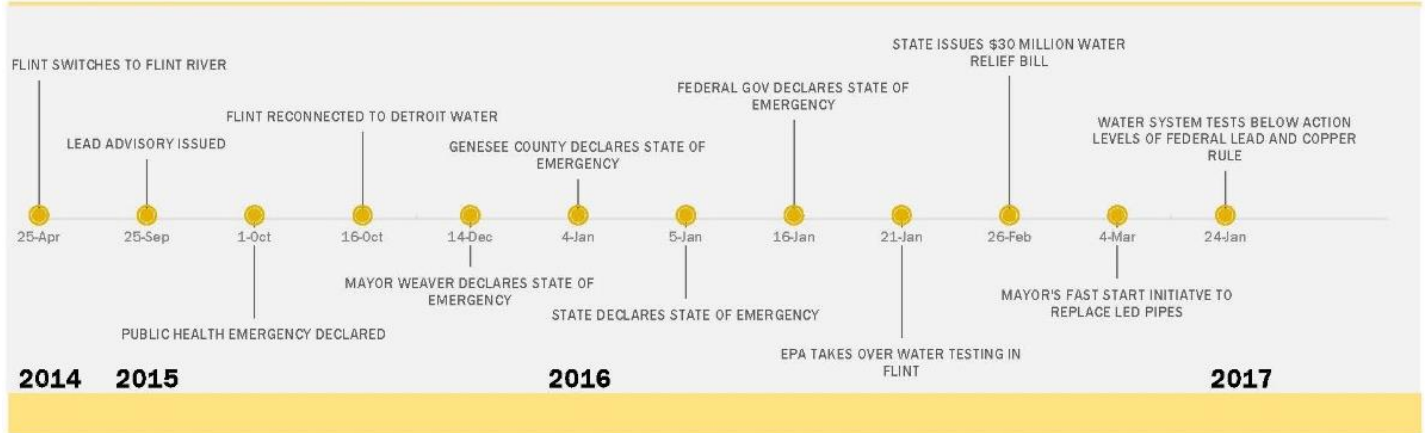
Furthermore, upgrades and modifications to the City's water treatment plant are required in order to process KWA water from Lake Huron. A raw water reservoir is also required in order for the City to reliably serve the community. The temporary chemical feed systems at Cedar Street and Westside Reservoirs must be replaced to support disinfection and corrosion control practices. The City of Flint does not have the

resources to cover these costs.

With a roughly estimated cost for replacement of all City-owned water mains and property service lines sitting around approximately \$1 billion, State and/or Federal help is urgently needed to accomplish these tasks. Rehabilitation of the City's Water Treatment Plant, including the raw water reservoir, is estimated at \$105 million.

It has been just over a year since these declarations of emergencies and much work remains to improve both the infrastructure underground and the water reaching homes aboveground.

FLINT WATER CRISIS TIMELINE



DATES DETAILS

DATE	MILESTONE
4/25/2014	Flint switches to Flint River
9/25/2015	Lead advisory issued
10/1/2015	Public health emergency declared
10/16/2015	Flint reconnected to Detroit water
12/14/2015	Mayor Weaver declares state of emer
1/4/2016	Genesee County declares state of emer
1/5/2016	State declares state of emergency
1/16/2016	Federal gov declares state of emergency
1/21/2016	EPA takes over water testing in Flint
2/26/2016	State issues \$30 million water relief bil
3/4/2016	Mayor's Fast Start initiative to replace l
1/24/2017	Water system tests below action levels

Flint Water Crisis Initiatives

The outcomes from the Flint Water Crisis have resulted in a number of initiatives focused on improving both the belowground capital infrastructure the City must maintain as well as the socioeconomic challenges that have arisen from public distrust of government and the quality of Flint water. Although some of these initiatives could be considered duplicative of each other, they all serve a common purpose: To regain the trust of the Flint community while developing strategies to repair, replace and fix Flint’s substandard water infrastructure.

The programs below are broken into two sections: 1) Infrastructure-based Repairs; & 2) Community Engagement and Social Programming.

Infrastructure-Based Response Programs:

- Operation Fast Start

Launched by Mayor Weaver in February 2016, the program specifically targets the replacement of residential service lines that contain lead or galvanized steel. It is estimated that over 19,000 homes in Flint contain some amount of lead or galvanized steel that would require a full or partial replacement. To date, \$47 million has been secured

for this program, resulting in approximately 800 homes receiving new, copper service lines. Additional funding estimated at \$115 million is needed to complete conversion across the entire city.

-TIGER Funding

Funded by the US DOT, TIGER (Transportation Investment Generating Economic Recovery) funds were awarded to the City in July, 2016. \$20 million in roadway reconstruction dollars have been made available to the City of Flint, to rebuild portions of roadways, including sidewalks, bike lanes, traffic signals, signage and lighting, and includes a road diet, while the City is reconstructing water mains. The City applied for \$40 million, but was ultimately awarded half of that request.

-Drinking Water Revolving Loan Fund/WIIN Funding

The Drinking Water Revolving Fund (DWRF) and the Water Infrastructure Improvements National-Act (WIIN) program are federal-state partnerships to help ensure safe drinking water. The city has been awarded \$120 million to upgrade infrastructure at the Flint Water Treatment Plant, rebuild water mains, replace service lines, update residential and commercial water meters, and support further engineering studies.

-CDBG Request

A \$151 million request for Community Development Block Grant funds to HUD was denied. The funds would have been used for water and sewer main replacement, service line replacement, replacement of compromised in-home infrastructure, and above ground restoration.

-In-Home Rehab.

\$1 million from MSHDA was awarded to Genesee County Habitat for Humanity to rehabilitate owner-occupied homes with repairs including compromised in-home infrastructure.

-Rebuild Flint the Right Way

Flint needs to rebuild itself. The people and places of Flint were damaged by the water crisis that began in 2014. The City understands that rebuilding its compromised infrastructure is fundamental to the city’s recovery. Flint’s interconnected and complicated water delivery system must be rebuilt. It only makes sense to rebuild proactively, efficiently, and sustainably. The livelihood of Flint’s residents, its businesses, and its community depends on a complete and timely infrastructure response. The Rebuild guide focuses on addressing and updating every piece of infrastructure when excavating and restoring for water projects.

Between LED lighting upgrades, Fiber Optic installation, passive greenbelt treatments and right-sizing our transportation network, the Rebuild Flint guide lays the vision and direction for which the City should strive to follow in order to become a sustainable, resilient, and adaptable community for generations to come.

The guide provides both minimum and maximum cost estimates, resulting in a range of \$852.6 million - \$4.7 billion to rebuild Flint’s infrastructure the right way. These numbers reflect the least or the most that work could cost, given known methods. The final cost will depend on the methods best for Flint, which would be determined through an engineering plan.

Community-Based Response Programs:

-Flint Kids Fund

Formally titled the Flint Child Health and Development Fund, the Community Foundation of Greater Flint established a fund in response to the water crisis. To date, over \$10.9 million has been raised and \$1.9 million has been awarded. The fund will be used to focus on long-term health and development needs of Flint children exposed to lead, particularly those aged 0-6 years.

-Moving Flint Forward Fund

This fund benefits the Genesee Chamber Foundation to address immediate and long term community development needs arising out of the Flint Water Crisis. It is geared specifically for small businesses, minority-owned business, North Flint redevelopment and general economic development activities.

-Safe Water Safe Homes Fund

This fund provides emergency relief for households with damaged plumbing and service lines as a result of the Flint Water Crisis. Specifically focuses on families that reside in “high-risk” households.

-Flint Water Fund

The United Way of Genesee County has set up a fund for the purchase of in-home water filters, bottled water, emergency support services and prevention efforts. To date, the UWGC has sourced more than 11,000 filter systems and 5,000 replacement filters.

-ReCAST Grant

The City of Flint was awarded a five-year, \$4,860,530 million grant by the Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Mental Health Services for the Flint Resiliency in Communities

After Stress and Trauma (ReCAST) program. The Flint ReCAST Program is designed to promote resilience in the Flint community by supporting youth and families, mitigating the impact of trauma, reducing behavioral health disparities and increasing the opportunities and training for Flint youth through strong community engagement strategies. The target population addressed by this project includes youth and their families impacted by various sources of distress, including the Flint Water Emergency.

-Flint Cares

Flint Cares was created out of the Flint Water Recovery Group as a way to provide Flint residents with the most accurate, up-to-date and trust worthy information regarding the water crisis.

The Flint Water Recovery Group, also known as the Community Partners Group, is a partnership of the more than 120 non-profits, churches, grass-root organizations, individuals and residents that are working together to create short, intermediate, and long term solutions related to the crisis.

**-Flint Water Interagency
Coordinating Committee**

Formed by the Governor, the Committee brings together a range of experts to work on long-term solutions to the Flint water situation and ongoing public health concerns affecting residents.

**-Flint Water Advisory Task
Force**

Appointed by the Governor, this group of 5 water and health experts was charged with conducting an independent review of the contamination of Flint's water supply. The group developed a series of findings and offered recommendations.

-Flint Water Study

An independent research team from Virginia Tech (VT) volunteering time, resources and expertise to help resolve scientific uncertainties associated with drinking water issues being reported in Flint.

**RESPONSE TO THE FLINT WATER CRISIS
CAPITAL IMPROVEMENT PLAN**

Infrastructure Projects

Further study and analysis will aid recovery, but ultimately large capital improvements are needed immediately to remedy the water crisis. The City has minimal general fund dollars available to fund these projects and is heavily reliant on State and Federal support. The projects below have been identified as priorities, with many of them receiving grant dollars already. *It is important to note that both the scope, costs and number of projects are subject to change suddenly, depending on the results of on-going engineering work, test results, and Federal and State imposes corrective actions.*

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Atherton Road TIGER Project 3-miles of roadway reconstruction, from Van Slyke to Dort Hwy. Improvements would include: a reduction from 4 traffic lanes to 3, addition of new bike lanes, and streetscape improvements including new greenbelt treatments and LED lighting and sidewalks.	1-URGENT Grant Funds Secured	\$14,912,000	\$1,759,000	\$13,117,000
Dupont St. TIGER Project 1.75 miles of improvements would occur from University Drive to Concord St. and from Pasadena Ave. to Bishop Ave. A reduction from 4 traffic lanes to 3, with the addition of bike lanes and similar treatments listed in the Atherton Rd. project.	1-URGENT Grant Funds Secured	\$8,612,000	\$0	\$8,612,000
Drinking Water Revolving Fund/WIIN Projects Improvements to the Flint Water Treatment Plant, transmission lines, meter replacement, service line replacement and an engineering study. Funding was secured from the WIIN program (\$100 million) with a \$20 million State match.	1-URGENT Partial Funds Secured	\$120,000,000	TBD	\$120,000,000
Residential Lead Service Line Replacement – Fast Start Full or partial replacement of lead and galvanized steel service lines. Estimates show that just over 19,000 homes are in need of repair/replacement. (Funding is part of DWRF/WIIN.)	1-URGENT Partial Funds Secured	\$82,600,000	TBD	\$47,000,000 Secured
Water Meter Replacement City-wide updating of commercial and residential water meters. (Funding is part of DWRF/WIIN.)	1-URGENT Grant Funds Secured	\$10,000,000	TBD	\$10,000,000
Water Treatment Plant Upgrades Upgrades to the water treatment plant. (Funding is part of DWRF/WIIN.)	1-URGENT Grant Funds Secured	\$58,500,000	TBD	\$58,500,000

<p>Engineering Study This is a proposed engineering study that will examine corrosive controls in the systems.</p>	<p>1-URGENT Grant Funds Secured</p>	<p>\$1,500,000</p>	<p>\$0</p>	<p>\$1,500,000</p>
<p>Owner-Occupied Rehab. Funds from MSHDA were awarded to Habitat for Humanity for exterior and interior rehabilitation.</p>	<p>1-URGENT Grant Funds Secured</p>	<p>\$1,000,000</p>	<p>\$0</p>	<p>\$1,000,000</p>
<p>Atherton Rd. & Dupont St. Water Main Repairs Improvements to two of the most neglected water mains. Project would run parallel to the TIGER project on the streets. Funding from the DWRLF has been secured.</p>	<p>1-URGENT Grant Funds Secured</p>	<p>\$15,716,000</p>	<p>\$0</p>	<p>\$15,716,000</p>

RESPONSE TO THE FLINT WATER CRISIS
CAPITAL IMPROVEMENT PLAN

Rebuild Flint the Right Way Project List

As Flint rebuilds, the new water distribution system must deliver clean drinking water to each and every property within the city. By focusing on rebuilding block-by-block, as opposed to house-by-house, Flint will not only provide clean and safe drinking water but physical conditions can be improved across the entire city. The chart below lists the specific projects of the Rebuild Flint the Right Way guide, including both minimum and maximum cost estimates.

ITEM	Minimum			Maximum		
	QUANTITY	COST/UNIT	ITEM COST	QUANTITY	COST/UNIT	ITEM COST
Water, Sanitary Sewer, and Storm Sewer Mains			\$1,571,594,830			\$1,571,594,830
Water Transmission Main Line	343,612	\$388	\$133,149,650	343,612	\$388	\$133,149,650
Water Distribution Main Line	2,739,040	\$263	\$718,998,000	2,739,040	\$263	\$718,998,000
Sanitary Sewer Main Line	2,988,877	\$130	\$388,554,010	2,988,877	\$130	\$388,554,010
Storm Sewer Main Line	1,911,169	\$130	\$248,451,970	1,911,169	\$130	\$248,451,970
Fire Hydrant	3,409	\$5,000	\$17,045,000	3,409	\$5,000	\$17,045,000
Storm Sewer Structures	14,309	\$2,200	\$31,479,800	14,309	\$2,200	\$31,479,800
Sanitary Sewer Structures	12,113	\$2,800	\$33,916,400	12,113	\$2,800	\$33,916,400
Water and Sewer Service Line Replacement			\$111,600,000			\$217,000,000
Water Service Line Replacement	31,000	\$1,800	\$55,800,000	31,000	\$5,000	\$155,000,000
Sanitary Sewer Service Line Replacement	31,000	\$1,800	\$55,800,000	31,000	\$2,000	\$62,000,000
Water and Sewer Service Lines to Vacant Properties			\$16,450,000			\$16,450,000
Water Service Line Removal	25,000	\$1,800	\$45,000,000	25,000	Negligible	
Sanitary Sewer Service Line Removal	25,000	\$1,800	\$45,000,000	25,000	Negligible	
Water Service Line Public Segment Replacement	4,700	\$2,500	\$11,750,000	4,700	\$2,500	\$11,750,000
Sanitary Sewer Service Line Public Segment Replacement	4,700	\$1,000	\$4,700,000	4,700	\$1,000	\$4,700,000
Water and Sewer Service Line Private Segment Reconnection	500	\$2,500	\$1,250,000	500	\$3,500	\$1,750,000

ITEM	Minimum			Maximum		
	QUANTITY	COST/UNIT	ITEM COST	QUANTITY	COST/UNIT	ITEM COST
Faucets, Utilities, and In-Home Plumbing			\$310,000,000			\$310,000,000
Fixtures & Hot Water Heaters	31,000	\$2,500	\$77,500,000	31,000	\$2,500	\$77,500,000
Indoor Plumbing	15,500	\$15,000	\$232,500,000	15,500	\$15,000	\$232,500,000
Roads			\$2,274,820,000			\$2,274,820,000
Freeway, Interstate, & Arterial	150	\$6,000,000	\$900,000,000	150	\$6,000,000	\$900,000,000
Traditional Neighborhood Local & Collector	197	\$2,000,000	\$394,820,000	197	\$2,000,000	\$394,820,000
All Other Local & Collector	245	\$4,000,000	\$980,000,000	245	\$4,000,000	\$980,000,000
Above the Ground Right of Way			\$170,689,884			\$170,689,884
Sidewalks	4,126,373	\$30	\$123,791,184	4,126,373	\$30	\$123,791,184
Street Light	11,805	\$740	\$8,735,700	11,805	\$740	\$8,735,700
Low-Maintenance Greenbelt	56,000	\$500	\$28,000,000	56,000	\$500	\$28,000,000
Street Tree Removal	6,134	\$700	\$4,293,800	6,134	\$700	\$4,293,800
Street Tree Planting	2,173	\$400	\$869,200	2,173	\$400	\$869,200
Approach Removal	25,000	\$200	\$5,000,000	25,000	\$200	\$5,000,000
Demolition			\$112,000,000			\$112,000,000
Residential Demolition	7,500	\$11,600	\$87,000,000	7,500	\$11,600	\$87,000,000
Commercial Demolition	500	\$50,000	\$25,000,000	500	\$50,000	\$25,000,000
Vacant Lot Reuse	25,000	\$1,000	\$25,000,000	25,000	\$1,000	\$25,000,000
Electric Cable Burying			TBD			TBD
Fiberoptic Cable/Conduit Installation			TBD			TBD
LOW TOTAL COST			\$4,360,904,714			\$4,466,804,714
HIGH TOTAL COST			\$4,593,404,714			\$4,699,304,714



4 CAPITAL IMPROVEMENT PLAN

HOUSING & NEIGHBORHOODS

The City of Flint has lost roughly half its population over the past fifty years. This population loss has resulted in a tremendous physical impact across Flint's neighborhoods, with some experiencing significant vacancies and degrading housing conditions, while other neighborhoods have fared more favorably, but are still fighting to remain stable.

The Housing and Neighborhoods Chapter in the Master Plan outlines a wide variety of strategies needed to address the drastic changes that have occurred in Flint's neighborhood structure.

The CIP plays a role in tying improvements to the needs of each neighborhood place type identified in the Master Plan.

CIP Vision for Housing & Neighborhoods

Imagine thriving neighborhoods, free of blight, where a targeted demolition stabilizes traditional neighborhoods and transforms high-vacancy neighborhoods into stable green neighborhoods with larger lots, community gardens, and well-maintained open space. Imagine inclusive neighborhoods teeming with mixed-income and mixed use developments integrated into the fabric of the community and connected to transit and walkable retail options. Imagine neighborhoods with retooled, modern infrastructure that is well-matched to the service needs of the population.

Capital Improvement Overview

Housing maintenance or

neighborhood stabilization projects are typically not included in a Capital Improvement Plan. Unfortunately, the burden of managing vacant properties falls on local government and cities like Flint are struggling to find the resources necessary to demolish or rehabilitate vacant buildings and take care of vacant property. Moving forward, it is important to note that the City continue to commit its Community Development Block Grant Funds and pursue additional grants to fund neighborhood stabilization efforts such as owner occupied rehabilitation and new housing construction. The City should also use grant funds to help stimulate multi-family development in a generally weak housing market.

Imagine Flint Neighborhood Planning Initiative

The City has committed to completing 10-15 neighborhood plans across the City by 2020. Investments in improving the quality of housing, along with strategic investments in neighborhood infrastructure should be guided by this neighborhood-level planning effort. In November 2015, the City was awarded a multi-year grant from the Ruth Mott Foundation to begin this process. The grant will assist the City to develop and begin implementing at least two (2) neighborhood plans annually, over the next two years. The City should continue to work with its community partners and identify the necessary funding to carry-out this program indefinitely.

HUD Choice Neighborhoods Planning Project (CN)

The City, in partnership with the Flint Housing Commission (FHC) was awarded a \$500,000 CN planning grant for the South Flint community. The grant specifically focuses on the Atherton East housing complex, one of the most isolated and crime-ridden developments within the City. Identified in the master plan as an inequitable and isolated development, the site currently lies within a floodplain. In early 2017, the South Flint Community Transformation Plan was completed and submitted to HUD. Additionally, the FHC entered into an agreement with Norstar Developments to plan for and implement a handful of new, mixed-income housing units.

Housing & Neighborhoods – 2016 CIP Progress

It’s important to document and detail the tremendous amount of work being done by the City over the past year. The following details the significant progress and investment made towards improving Flint’s housing and neighborhoods. In all, there are 10 on-going projects that total roughly \$97.8 million dollars in capital improvements to Flint neighborhoods.

A full list of the projects can be found on the project spreadsheet listed within this chapter.

Hardest-Hit Funding.
The City and GCLBA

partnered again in 2016, resulting in an additional \$12 million of Federal demolition to address abandoned properties in Flint. Currently, 1,635 properties are funded for demo and are expected to be removed in 2017-2018.

Blight Removal Activities.

The City continues to take a community-driven approach to eliminating blight. 2016 produced some astounding numbers of blight removal:

- Over 259 tons of trash removed.
- 38 community organization support through the Love Your Block program
- 126 homes boarded and secured.
- 3,966 enforcement complaints received; 3,966 responded to and 2,291 resolved.

YOUR Neighborhood Inventory Program.

The City continues to partner with the Community Foundation and their NSG program to offer mini-grants for neighborhood data collection work. In all, 70,000 pieces of data was collected and over \$20,000 was awarded in mini-grants.

Housing & Neighborhoods Policy

The following housing and neighborhood policies are derived from the Master Plan and should shape all projects moving forward. These policies provide a

framework for evaluating the merits of any capital improvement project. For detailed discussion of each policy, please refer to the Master Plan section and the page referenced.

Housing options diversification.

The City continues to prioritize new mixed-income, multi-family housing development. The City utilized multiple PILOTS (Payment-In-Lou-of-Taxes) ordinances for a handful of projects across the city in 2016.

Master Plan reference: Diversifying Housing Options, pp. 93-95.

Neighborhood stabilization.

The City continues to equitably commit funds for neighborhood stabilization, with at least half allocated to Green Neighborhood.

Master Plan reference: Neighborhood Revitalization Priorities, p. 101; Eliminating Blight and Urban Decay, p. 110.

Code enforcement.

The City continues to investigate an enforcement program designed to address absentee private property owners who are failing to adequately maintain their property. Recently a Magistrate position was created to help expedite citations created through Code Enforcement.

Master Plan reference: Code Enforcement, p. 101.

Low-Maintenance Restoration & Greening.

The City and GCLBA are restoring demolished lots with low-growth clover. The planting of clover offers a significant reduction to annual maintenance of vacant lots, resulting in two (2) mowing’s a season.

Master Plan reference: Greening & Repurposing, pp. 102-103.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

Project Completed in

2016: 

Project Underway from

2016: 

New Project Added from

2016: 

Project Removed from

2016: 

HOUSING & NEIGHBORHOODS CAPITAL
IMPROVEMENT PLAN

Blight Elimination

The Master Plan called for the development of a multi-phase blight elimination framework. The City produced a Five-Year Blight Elimination Framework with assistance from the Genesee County Land Bank. The blight elimination framework uses the Master Plan place types to provide direction for blight removal, which can be used by institutions, residents, business owners, public officials, and the entire Flint community. Grant funding is aiding in the implementation of this document.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Code Enforcement Provide effective code enforcement to support blight removal and work to ensure that properties remain blight free. Partner with the Center for Community Progress to assess true costs of functional system.	2 – IMPORTANT	TBD	TBD	TBD
Boarding Boarding of 5,000 structures. 5-year cost.	1 – URGENT	\$1,100,000	TBD	TBD
Mowing Mow 20,000 properties annually with next-door support and using mow strips for properties not adjacent to occupied properties, if not reused. 5-year cost.	1 – URGENT	\$17,988,300	TBD	TBD
Waste Removal Removal of 71,000 tons of trash, debris, and hazardous trees. 5-year cost.	1 – URGENT	\$3,800,000	TBD	TBD
Demolition Demolish 5,000 vacant and blighted residential structures. 5-year cost.	1 – URGENT Grant Funds Secured	\$63,950,000	TBD	TBD
Vacant Lot Reuse Facilitate reuse of 5,000 vacant lots. 5-year cost.	1 – URGENT Grant Funds Secured	\$1,400,000	TBD	TBD

HOUSING & NEIGHBORHOODS CAPITAL
IMPROVEMENT PLAN

Improving Neighborhoods

Investing in Flint’s existing neighborhoods is a key component in improving quality of life, a guiding principle of the Master Plan. The City should continue to identify projects and initiatives that improve neighborhoods in accordance to the Master Plan.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
LED streetlight conversion program Converting streetlights to LED fixtures would require an initial capital outlay but the savings are anticipated to have a payback as early as 4 years. To date over 300 fixtures have been converted.	2 – IMPORTANT	\$8,00,000(+)	\$8,000,000	\$0
Residential Parcel Assessment Biennial inventory of residential parcels for structural quality and housing vacancy.	2 – IMPORTANT Grant Funds Secured	\$20,000	\$0	\$20,000
Imagine Flint Neighborhood Planning Initiative Two-year planning project that will create at least 4 neighborhood plans across Flint.	1 – URGENT Grant Funds Secured	\$487,580	\$177,580	\$320,000
Safe Routes to School – Potter/Longway & International Academy-Flint Mobility improvements that include sidewalks and cross-walks along key routes to school.	1-URGENT Grant Funds Secured	\$538,575	\$0	\$538,575
Safe Routes to School – Brownell/Holmes, Eisenhower, Eagles Nest Academy Mobility improvements that include sidewalks and cross-walks along key routes to school.	2-IMPORTANT	\$600,000	\$0	\$600,000
Interactive Parcel Mapping Platform The Flint Property Portal was recently launched in partnership with the GCLBA. This interactive portal allows citizens to report blight violations in-real time.	COMPLETE	\$50,000	\$0	\$50,000
Choice Neighborhood Planning Project Development of a Transformation Plan for the south Flint community, specifically targeting Atherton East housing complex. The plan includes funding for “short-term” action projects to improve the quality of neighborhoods in South Flint.	COMPLETE	\$500,000	\$0	\$500,000
Smith Village Landscaping and Green Infrastructure Plan	REMOVED			
Smith Village Landscaping and Infrastructure Improvements	REMOVED			



5 CAPITAL IMPROVEMENT PLAN

TRANSPORTATION & MOBILITY

The City must approach transportation and mobility with a strategy that is driven by the Master Plan. The City is primed to leverage its strategic regional location, access to the interstate highway system, and connection to Bishop International Airport for new economic development efforts. The City is also faced with the challenge of restructuring its transportation and mobility systems that were designed and built for a population twice that of which they currently serve.

The Transportation & Mobility Plan of the Master Plan stresses the need to work with agencies, to better coordinate efforts, manage and maintain their roadways, and improve the transportation system in Flint. Furthermore the city

must undertake and support initiatives that reduce dependence on the automobile while improving walkability and bikeability.

Land use and transportation are inherently linked. Together, they create the places people go and the ways they get there. Land use and transportation must be closely coordinated to ensure that Flint grows in a sustainable and efficient way.

All policies and projects should consider the impacts on both the City's land use pattern and transportation network based on the following questions:

-Does the existing transportation system support anticipated development?

-How can future development complement the transportation network?

-What modes of transportation are most appropriate for a given area?

-How can investment in transportation accomplish other community goals, including neighborhood stabilization; infrastructure improvement; economic development; and the promotion of public safety, health and welfare?

-How does the local environment influence transportation improvements?





CIP Vision for Transportation & Mobility

Imagine an efficient, coordinated, and reliable transportation system within Flint, where an interactive network of trails, sidewalks, bike lanes, buses, and roads afford all citizens multiple modes of safe transit. Imagine a Flint that is one of the most walkable and bikeable communities in all of Michigan. Imagine a Flint that capitalizes on its strategic regional location, access to the interstate highway system, existing railroad infrastructure, and connection to Bishop International Airport to spark new industries and grow companies.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed

over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

- Project Completed in 2016:** 
- Project Underway from 2016:** 
- New Project Added from 2016:** 
- Project Removed from 2016:** 

There were two projects completed in 2016, totaling \$50,000. The City was also awarded a TIGER Grant worth \$20 million to perform reconstruction activities on Dupont Street and Atherton Rd. There are a total of two new projects and 13 projects that are “in progress”, and over \$20 million worth of capital improvements that remain “in progress”.

A full list of projects can be found on the project spreadsheet listed within this chapter.

Transportation & Mobility Policy

The following transportation and mobility policies are derived from the Master Plan and should shape all projects moving forward. For detailed discussion of each policy, please refer to the Master Plan section and page referenced.

Hiring of a City Engineer

In 2016, the City hired an engineer. This was a recommendation listed in the previous two CIP’s and the hire will significantly aid the City in a handful of projects.

Infrastructure Design

An increased emphasis on road diets and traffic calming is taking shape as multiple City-streets are awaiting the results of engineered road diet studies.

Trail Development

The City completed and remains in negotiations to build additional non-motorized trails.

Street Tree Management

A tree inventory has been conducted and a draft street tree management plan was developed. Once finalized, adequate dollar amounts will be appropriated in upcoming CIP updates.

Winter Plowing & Storage

There is a need to acquire a second location to store salt during the winter months to

reduce reload and travel time when plowing city streets. Additionally, due to the age of the fleet, there are mechanical challenges faced by the Department. DPW will need access to an indoor storage facility to help decrease startup/down times.

Aging Fleet

Due to the aging of the fleet used to perform winter maintenance activities, the City desperately needs to start replacing the tandem trucks to reduce the repair costs and downtime currently being experienced. DPW is proposing to purchase at least two trucks annually, during the next three years.

Pedestrian Safety (Walking Audit)

The City partnered with 30 neighborhood groups to audit roughly 530 miles of city sidewalks.

Master Plan reference: Signage & Safety, p. 130-132

Sidewalk Repair (50/50 Program)

The City launched a 50/50 program works to repair faulty sidewalks with partial payment coming from homeowners. The City should also continue to secure federal, state, and grant funding for the repair or installation of sidewalks.

Master Plan reference: Signage & Safety, p. 131

Mass Transit Authority

The MTA should be consulted to determine needs related to local infrastructure (bus turn-outs, stop locations, intersection phasing, ITS applications, etc.) and identify desirable modifications to established routes.

Master Plan reference: Transit, p. 133-136

Data Collection efforts

The City launched an aggressive program to better understand exactly “where” mobility problems are occurring. The problem spotter technology allows residents and DPW staff to identify problems in real time, through the use and collection of data.

TRANSPORTATION & MOBILITY CAPITAL IMPROVEMENT PLAN

Maintenance of Existing Streets

The street network within the City includes more than 550 miles of roadways. The current network of local streets has long been neglected, with estimates of repairs needed at \$50 million, and this estimate may be well below actual costs when considering the full scope of projects. Even with the undeniable need, the FY 2012-13 maintenance programs accounted for only 4.5 miles of resurfacing. At that pace, City roadway resurfacing would be completed on a 122-year cycle even though the life expectancy of an asphalt roadway is 20 years at best. Pavement Surface Evaluation and Rating System (PASER) ratings in 2014 found only 1% of City streets to be in “Good” condition, down from 8% in 2012, and 28% in 2008.

Investment in streets is vital to accomplishing the goals of the Master Plan and should be considered an investment in other aspects of the community. The goods and people transported by the street network supports commerce, industry, health, education, activity, and other important functions. Land use changes in the City and their relationship to the changing transportation needs should be analyzed in great detail as part of any redevelopment project. The Master Plan discussed a number of concepts and techniques to consider in various parts of the City to reflect the change in context, multi-modes of transportation available, and current practices in the industry.

Opportunities to make improvements, such as instituting Complete Streets, converting one-way streets to two-way in the area, consolidating curb cuts, reconnecting cul-de-sac streets, road diets, reconfiguring intersection alignments, removing traffic signals that are no longer needed, signal technology improvements, and access management (all of which are discussed in detail in the Master Plan Chapter 6), can all contribute to “right-sizing” the roadway network to meet the needs of the new Flint and be a critical infrastructure improvement for implementation of all aspects of the Master Plan. Eliminating some roadway segments can be done without compromising local mobility or character of neighborhoods, and these segments then do not compete with critical segments for maintenance dollars. There are numerous four-lane roadways throughout the City that have Average Daily Traffic (ADT) totals below 20,000, making them candidates for a road diet via conversion to three-lanes or narrow median four-lane boulevard, along with other improvements specific to the modal requirements of the corridor. A number of the projects included below include review of feasibility of a road diet implementation (see page 125 of the Master Plan for a complete list and map).

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Lapeer Road – I-69 to Dort Hwy. Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from I-69 to Dort Highway. Cost includes PE, construction, and CE.	2 – IMPORTANT	\$1,382,973	\$276,595	\$1,106,378
Future TIP projects Not identified projects 1.5 million dollars for FY21 at assumed 20% cost-share. TIP projects for 2017-2020 recognized individually as new projects in CIP. FY2021 only year with unidentified projects.	2 – IMPORTANT	\$1,500,000	\$300,000	\$1,200,000
Lapeer Road – Center Rd. to Railroad Tracks Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from Center Road to Dort Highway. Cost includes PE, construction, and CE.	2 – IMPORTANT	\$1,127,085	\$225,417	\$901,668

<p>Mackin Road Total reconstruction with storm sewer upgrades, new sidewalk, drive approaches, ADA ramps and signals from Ballenger Highway to Grand Traverse. Cost includes PE, construction, and CE.</p>	2 – IMPORTANT	\$2,500,000	\$485,000	\$2,015,000
<p>Martin Luther King Avenue Total reconstruction with storm sewer upgrades, new sidewalk, drive approaches, ADA ramps and signals from Pierson to downtown. Cost includes PE, construction, and CE.</p>	2 – IMPORTANT	\$3,750,000	\$750,000	\$3,000,000
<p>Hamilton Avenue Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Chevrolet to ML King. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.</p>	2 – IMPORTANT	\$830,285	\$166,057	\$664,228
<p>Grand Traverse Street Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Welch to Court. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.</p>	2 – IMPORTANT	\$2,282,663	\$456,526	\$1,826,106
<p>Flint Cemetery driveway Construct a new driveway to improve accessibility to the cemetery, particularly for veterans.</p>	3 – DESIRABLE	\$100,000	\$100,000	\$0
<p>Saginaw Street Brick Resurfacing Resurface existing brick-surfaced segment of Saginaw Street from the Flint River to Court Street with brick and other materials to improve road surface and environment for safe travel of motorists, bicyclists and pedestrians. TIP application submitted. Competing for federal funding award.</p>	3 – DESIRABLE	\$3,859,415	\$771,883	\$3,087,532
<p>Andrew Street Full reconstruct of Andrew Street from Stewart to Wager. Andrew will remain a 3 lane, one-way road with the potential to be converted to two-way in the future. Cost includes PE, construction, and CE. Preliminary design completed by MDOT. Project to be constructed during calendar year 2016.</p>	1 – URGENT Grant Funds Secured	\$874,971	\$0	\$874,971
<p>Stewart Avenue Full reconstruct of Stewart Ave from James P. Cole to Dort. Stewart will be reduced from a six lane roadway to 5 lanes. Cost includes PE, construction, and CE. Preliminary design completed by MDOT. Project to be constructed during calendar year 2016. Additional</p>	1 – URGENT Grant Funds Secured	\$1,628,097	\$0	\$1,628,097

\$192,000 grant awarded to cover projected project cost overrun.				
Residential Streets Includes a variety of road treatments to preserve and maintain residential streets annually at a cost of \$2,000,000. \$50,000,000 need. Enacted Road Funding Bill to provide additional funds for road/bridge maintenance.	1 – URGENT ON-HOLD	\$12,000,000	\$12,000,000	\$0
Fenton Road Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from Hemphill to Campbell Street. Cost includes PE, construction, and CE. Fleis & Vandenbrink performing preliminary engineering and design. Construction anticipated calendar year 2017.	1 – URGENT Grant Funds Secured	\$788,591	\$157,718	\$630,873
MDOT Projects Annual projects anticipated for FY 2015, 2016, and 2017 that require a cost-share by the City to participate. City cost share represents 12.5% of MDOT local share of federal project costs for improvements within City jurisdiction. MDOT completed construction I-69.	1 – URGENT Grant Funds Secured	TBD	\$556,000	TBD
Stewart Avenue Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from Andrew Street to Dupont Street. Cost includes PE, construction, and CE.	2 – IMPORTANT	\$1,633,690	\$326,738	\$1,306,952
Miscellaneous projects Projects identified for FY 2016/2017 Includes contribution to preliminary engineering for S. Saginaw Street road diet (\$25,000) and funding source identification for Leith Street access project (\$20,000).	2 – IMPORTANT	\$45,000	\$45,000	\$0
Fenton Road Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from I-69 to Campbell Street. Cost includes PE, construction, and CE. Fleis & Vandenbrink performing preliminary engineering and design. Construction anticipated calendar year 2016.	2 – IMPORTANT	\$1,984,569	\$661,910	\$1,322,700
Hamilton Avenue Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from ML King to Broadway. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.	2 – IMPORTANT	\$1,928,498	\$385,699	\$1,542,798

<p>Court Street Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Crapo to Center. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.</p>	<p>2 – IMPORTANT</p>	<p>\$3,296,932</p>	<p>\$659,386</p>	<p>\$2,637,546</p>
<p>Davison Road Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Hamilton to Dort. Cost includes PE, construction, and CE.</p>	<p>2 – IMPORTANT</p>	<p>\$1,983,650</p>	<p>\$396,730</p>	<p>\$1,586,920</p>
<p>Fleming Road Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Pasadena to Bell Creek. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.</p>	<p>2 – IMPORTANT</p>	<p>\$1,762,578</p>	<p>\$352,516</p>	<p>\$1,410,062</p>
<p>Kearsley Street Resurfacing project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines Chevrolet to Beach. Cost includes PE, construction, and CE. Wade Trim performing preliminary design. Construction anticipated FY 2017.</p>	<p>2 – IMPORTANT Grant Funds Secured</p>	<p>\$1,318,891</p>	<p>\$263,778</p>	<p>\$1,055,113</p>
<p>Van Slyke Road Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Atherton to Hemphill and a pedestrian crosswalk added at the Atherton Rd intersection. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.</p>	<p>2 – IMPORTANT</p>	<p>\$858,837</p>	<p>\$171,767</p>	<p>\$687,070</p>

<p>Dupont Street Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from Stewart Avenue to Carpenter Road. Cost includes PE, construction, and CE. Preliminary design completed. Project to be constructed during calendar year 2016.</p>	<p>REMOVED TIGER PROJECT (Referenced in Ch. 3)</p>			
<p>Atherton Road Project to include milling the existing pavement, pavement repairs, placement of 4 inches of HMA over existing pavement, manhole adjustments, sidewalk ramps and associated sidewalks and curbs reconstructed in accordance with ADA guidelines from Ogema to Dort Highway. Cost includes PE, construction, and CE. TIP application submitted. Competing for federal funding award.</p>	<p>REMOVED TIGER PROJECT (Referenced in Ch. 3)</p>			

**TRANSPORTATION & MOBILITY
CAPITAL IMPROVEMENT PLAN**

Technology & Wayfinding

Projects on the transportation network to improve mobility are not restricted to paving or reconstruction. There are many low cost improvements that can be considered that can have a dramatic positive impact on mobility. Given the reduction in population, it is very likely that some intersections that are currently signalized would no longer warrant them. The City has 288 signalized intersections, well over twice the number anticipated for the population according to the Institute for Transportation Engineers (ITE). Conversion of signalized intersections to two-or four-way stop control can save several thousand dollars annually in electricity costs, not to mention the cost of hardware and controllers. For intersections where signals are warranted, improvements can still be made, including coordinating a series of signals on major arterial roadways to allow vehicle platoons driving the posted speed limit to progress through a corridor. Where synchronization isn't an option, alternatives such as changing the cycle length as warranted by traffic throughout the day or addition of vehicle detection systems to modify signal phasing based on traffic volumes in real time can be considered to minimize queuing of vehicles and wasted green time. These changes, in addition to emergency signal preemption and transit signal priority can assist in improving mobility for emergency vehicles and buses.

Another, often overlooked, method of improving mobility is through improved wayfinding signage. Addition of distinctive, uniform, and attractive signage along key corridors, intersections, and locations can be instrumental in directing visitors to key destinations, such as downtown, public parking, parks, hospitals, schools, colleges, motels, restaurants, etc. Within key areas such as downtown, additional pedestrian-level maps can further highlight attractions in each area. As the Master Plan is implemented it is very likely that a number of projects in addition to those listed will be identified to improve mobility. The City should collaborate with entities such as MDOT to review traffic signals on state routes and downtown business groups for ideas on wayfinding programs in the downtown. It is also feasible that student projects at one of the local colleges could be done for wayfinding recommendations and options throughout the City.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Analysis of City traffic signals Review of all City traffic signals to determine if they are warranted and, if so determine if synchronization, cycle length changes, etc. can improve mobility and reduce delays.	2 – IMPORTANT	TBD	TBD	TBD

**TRANSPORTATION & MOBILITY
CAPITAL IMPROVEMENT PLAN**

Infrastructure Design

Street network improvements that are not typical resurfacing or reconstruction can also have a dramatic impact on mobility. Implementation of “Complete Streets” designed and operated to be safe for pedestrians, bicyclists, motorists, and transit riders of all ages and abilities can often not only ease congestion but also support economic growth, improve safety, encourage walking and biking, improve air quality, and enhance mobility for children. A Complete Streets approach to roadway infrastructure promotes the development of a multi-modal transportation network where safe alternatives to cars are available. The City has adopted a non-binding Complete Streets ordinance stating its support for development of multi-modal corridors, and a logical next step is adopting a binding policy outlining how various components can be integrated into future public and private development projects. The components could include design guidelines, technological improvements, signage, education programs and outreach, road diets, one-way to two-way conversions, addition of bike lanes, access management, mid-block pedestrian crossings/pedestrian signals, traffic calming, and intersection realignment, among others. The Master Plan has already identified a number of corridors in the City that could be candidates for a road diet (conversion from four full width travel lanes, often with full length center left turn lane to generally 2 travel lanes with on-street parking, transit lanes, bike lanes, and/or medians added). A handful of projects have been identified below as a first step in the Complete Streets program for the City during implementation of the Master Plan.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Saginaw Street Milling and resurfacing of existing pavement, pavement repairs, manhole adjustments, and reconstruction of curb ramps from Hamilton Avenue to the Flint River. Cost includes PE, construction, and CE.	2 – IMPORTANT	\$1,940,822	\$388,164	\$1,552,658
Buick City redevelopment perimeter streets Total reconstruction with storm sewer upgrades, new sidewalk, drive approaches, ADA ramps and signals to facilitate redevelopment in the area. Cost includes PE, construction, and CE.	2 – IMPORTANT	\$3,750,000	\$750,000	\$3,000,000
South Saginaw Street road diet Planning staff received a \$30,000 grant to complete the road diet for S. Saginaw St. from I-69 to Hemphill Rd. These resources will result in new bike lanes being created on Saginaw St., a streetscape plan with gateway enhancements being generated and minor streetscape improvements being implemented.	COMPLETE	\$30,000	\$0	\$30,000
Harrison Street Enhancement Cost includes CE and construction. Rowe Professional Services completed preliminary design. Construction scheduled calendar year 2016.	REMOVED			

**TRANSPORTATION & MOBILITY
CAPITAL IMPROVEMENT PLAN**

Mobility & Access

Given the fact that the City’s transportation network hosted much higher traffic volumes than are expected in the future, the existing network is likely a candidate for other improvements not already mentioned that would improve mobility and access. The City should consider a comprehensive analysis of the street network within the City to ascertain what improvements best meet the needs, both current and future. The scope of this analysis should build upon that already completed in the Master Plan but go to a higher level of detail, looking at additional data such as traffic counts, crash data, land use, etc. and develop a more comprehensive listing of projects that can be discussed at a future update of this CIP. This study should also consider the need for connectivity to Bishop International Airport and the state highways and interstate highways in the City (M-21, M-54, I-69, I-75 and I-475), transit needs of MTA, and regional mobility. Other factors to consider is reconnecting cul-de-sacs where mobility would be enhanced, making new network connections to eliminate isolation from a neighborhood, and street removals that no longer serve their original purpose.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
City-Wide Transportation Network Analysis Study suggested performing a thorough analysis of the true needs of the City’s roadway network.	1 – URGENT	TBD	TBD	TBD
Bus Rapid Transit The City, in partnership with the Mass Transit Authority (MTA), should pursue a feasibility study on BRT transit along Saginaw Street. Identified as the “primary artery” within Flint, BRT along Saginaw Street would provide increased accessibility and access through much of the City’s core.	3 – DESIRABLE	TBD	TBD	TBD
Leith Street (Access Point) Total reconstruction with storm sewer upgrades, new sidewalk, drive approaches, ADA ramps and signals from Dort to Saginaw, which would restore east-west access across I-475 and Buick City and provide access on the north side of the City. Cost includes PE, construction, and CE.	3 – DESIRABLE	\$18,750,000	\$3,750,000	\$15,000,000

**TRANSPORTATION & MOBILITY
CAPITAL IMPROVEMENT PLAN**

Bridges

As would be expected, bridges in the City are in a similar situation when compared to the streets. There are a number of vehicle and pedestrian bridges that are in need of regular maintenance, rehabilitation, or replacement. At least 53 bridges in the City are rated as “structurally deficient” or “functionally obsolete” according to a Highway Bridge Report prepared by MDOT in 2013. The City has a total of 32 bridges under its jurisdiction, 23 of which (72%) were found to be “structurally deficient” or “functionally obsolete” according to a Bridge Technical Report prepared by Genesee County Metropolitan Planning Commission. All of these bridges facilitate the movement of vehicles over freeways, other roadways, railroads, and watercourses and are essential to the movement of goods and people in the City. It is unlikely that any of the vehicle bridges are no longer required; however there are some pedestrian-only overpasses that no longer serve their original purpose due to the changes in population, closing of schools, etc.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Atherton Road over Carmen Creek Bridge Preventative maintenance of the bridge over Thread Creek. Cost includes PE, construction, and CE.	1 – URGENT Grant Funds Secured	\$425,000	\$85,000	\$340,000
12th Street Pedestrian Bridge Demolish pedestrian bridge over 12 th Street and railroad at Southwestern Academy. Verify that bridge no longer is needed to meet future plans of Flint Community Schools and Master Plan implementation.	3 – DESIRABLE	\$150,000	\$150,000	\$0
Kearsley Park Boulevard Bridge Preventative maintenance of the bridge over Gilkey Creek. Cost includes PE, construction, and CE.	1 – URGENT Grant Funds Secured	\$135,000	\$32,400	\$102,600
Barton Street Bridge Preventative maintenance of the bridge over Thread Creek. Cost includes PE, construction, and CE.	1-URGENT Grant Funds Secured	\$183,750	\$44,100	\$139,650
Bridge Maintenance Projects Annual allocation to perform miscellaneous routine bridge maintenance projects FY2017 to FY2021. \$200,000 annually.	1 – URGENT	\$1,000,000	\$1,000,000	\$0
Torrey Road (12th Street) Bridge over Carmen Creek Bridge replacement. Costs include PE, construction, CE. Construction anticipated in FY2017.	2 - IMPORTANT Grant Funds Secured	\$1,227,500	\$245,500	\$982,000
S. Saginaw Street Bridge over Flint River Preventative maintenance project. Costs include PE, construction, CE. Construction anticipated in FY2018.	2 – IMPORTANT Grant Funds Secured	\$387,500	\$77,500	\$310,000

TRANSPORTATION & MOBILITY
CAPITAL IMPROVEMENT PLAN

Pedestrian Network and Right-of-Way Maintenance

The City has a comprehensive sidewalk network that serves its neighborhoods, commercial areas, and recreational areas. The condition of many sidewalks is deteriorating and areas exist where gaps limit pedestrian safety and mobility. There is no detailed inventory of sidewalks but there is extensive evidence of the need for significant work being needed to maintain, repair, or replace sidewalks. Sidewalk maintenance is an on-going challenge given Flint’s limited resources, a problem common in most urban areas. A walkability audit was also completed in 2016 and the City now has significant data that identifies pedestrian paths and physical barriers to walking, access to transit, and accessibility to persons with disabilities.

The City has recently completed a comprehensive street tree audit. These findings are under review and will determine specific monetary amounts dedicated to street tree maintenance for the upcoming years. Additionally, fleet service and upgrades are needed for winter maintenance activities.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Sidewalk repairs Repairs to sidewalks city-wide with estimated cost of \$40,000,000 minimum. By ordinance, sidewalk repairs are the responsibility of the property owner and a cost-sharing program is being evaluated to facilitate city-wide improvements. An accurate, detailed inventory is needed to assess most critical areas based on Master Plan implementation goals.	2 - IMPORTANT	TBD	TBD	TBD
Street Tree Maintenance Annual allocation to perform routine maintenance of urban tree system as recommended in the Street Tree Management Plan. Costs include tree removals, plantings, and routine maintenance activities.	2 - IMPORTANT	TBD	TBD	TBD
Tandem Trucks Purchase two trucks per year for the next three years, thereafter follow approved depreciation schedule for vehicle replacements (\$175,000 each).	1 - URGENT	1,050,000	\$1,050,000	\$0
Salt Storage Facility Secure additional salt storage facility in northern section of City to decrease salt truck reload time and improve plowing efficiency.	2 - IMPORTANT	TBD	TBD	TBD
Equipment Storage Facility Facility to store vehicles to protect engines and mechanical parts to decrease startup time/downtime and improve response times.	2 - IMPORTANT	TBD	TBD	TBD
Walkability audit of City pedestrian network Review of entire network of City sidewalks to determine condition and ADA compliance to allow prioritization of projects. Should include extensive public involvement and be consistent with the implementation of the Master Plan.	COMPLETE	\$20,000	\$0	\$20,000

**TRANSPORTATION & MOBILITY
CAPITAL IMPROVEMENT PLAN**

Trail Improvements

Trails provide many benefits to the community including an improved transportation system, health and safety, environmental preservation, and economic vitality for the community. Trails and pathways are an important component of creating a livable community and attracting a talented workforce to the City of Flint and Genesee County. The Genesee County Regional Trail Plan included a number of trail projects that should be considered both within the City as well as regional trail connections. The Genesee County Plan identified the Flint River Trail, Genesee Valley Trail, and Grand Traverse Greenway as the top 3 priority trail projects in the county. Groups, such as the Genesee Regional Trail Council (GRTC), consisting of representatives from local communities, Friends of the Flint River Trail, M-15 Heritage Route, Clio Area Pathways, Genesee County Parks and Recreation Commission, Genesee County Road Commission, Genesee County Land Bank, MTA, MDOT, University of Michigan-Flint, Ruth Mott Foundation, and numerous other groups. The purpose of the GRTC is to create an interconnected system of trails linking people and communities throughout Genesee County and guide the development of the countywide trail plan. There are a number of agencies and organizations that offer funding for the development of non-motorized trail systems. The Federal and state government, non-profit organizations, and corporations all offer programs for trail funding, and several funding sources can only be used for non-motorized trail systems. Maintaining eligibility for the various funding sources and seeking funding for improvements is critical to meeting the goals for trails in the City.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Southern Flint River trail extension - CSX railroad (3.1 miles) Grand Traverse Greenway Trial project	2 – IMPORTANT	TBD	TBD	TBD
Northeast Flint River trail extension (3.8 miles)	REMOVED			
Eastern Flint River trail extension (4.9 miles)	REMOVED			
Western Flint River trail extension - Carriage Town (1.3 miles)	REMOVED			
Southern Flint River trail extension - Flint Golf Club (2.0 miles)	REMOVED			
Western Flint River trail extension - Mott Park (2.2 miles)	REMOVED			
Southern Flint River trail extension - Swartz Creek (2.8 miles)	REMOVED			



6 CAPITAL IMPROVEMENT PLAN

ENVIRONMENTAL FEATURES OPEN SPACE & PARKS

Built around the Flint River, the City has always had a direct relationship with the natural environment. The Master Plan presents an opportunity for the City to generate greater social and capital benefits from its environmental features, open spaces, and parks.

Open space and parks are critical components of urban life. They provide opportunities for passive and active recreation, access to nature, enhanced air and water quality, and help define the character of each neighborhood and community as a whole.

Accordingly, the Master Plan establishes the framework for more extensive blue/green corridors throughout the City that are

complemented by linked trails, paths, parks, and other open space amenities.

Investment in environmental features, open spaces, and parks capital is needed to generate greater benefits from these assets.

The Environmental Features, Open Space & Parks Plan aims to balance some of Flint’s most significant challenges with unique opportunities to enhance the quality of life for its residents, and create a natural framework around which to build a new, prosperous Flint. It also identifies ways that water bodies, green open spaces, and parks can dovetail into other planning efforts, including land use, transportation, community

facilities, public safety, and more.

CIP Vision for Environmental Features, Open Spaces & Parks

Imagine a new national reputation for Flint, with the City positioned as a post-industrial leader in protecting the environment and building upon its natural assets to clean polluted air, land, and water, and confront climate change. Imagine an extensive network of well-kept parks, safe and accessible to all and beautifully maintained. Imagine the Flint River revitalized by an alliance of City, non-profit, volunteer, and resident partners. Imagine the Flint River as an anchor for economic growth and recreation and home to

a vibrant “green waterfront” of parks and trails spanning the entire length of the river.

CIP Overview

Primary capital investments within Flint parks system should be made in conjunction with the land use and transportation and mobility plans, ensuring that any investment, even minimal in nature, over the next 5-years be targeted at the vulnerable populations, thus aiding neighborhood stabilization and our Youth demographics.

Increased emphasis should be placed on implementing alternative methods to address the traditional landscapes that are found throughout many Flint parks today. By identifying





portions or entire public spaces that are unused, transitions to native landscapes shall be prioritized as part of a comprehensive park naturalization process.

City of Flint Parks Millage

The parks millage, which was renewed through 2026 in November of 2016, is the only dedicated source of funding for City parks and open space. Maintaining the extensive network of parks is costly and the revenue brought in by millage has been on a steady decline due to decreased property values. In 2015, the parks millage only generated \$312,000 of which 78% was spent the most basic of mowing services and utilities. Staffing in parks has also been vastly decreased. In 2008 the City had the equivalent of 65 full time positions. In 2015 it had less than one full time position shared by four staffers. With the parks millage renewal secured, finding additional long term funding is necessary as the parks millage alone is not sufficient to our needs. Despite budget constraints, the City continues to aggressively pursue grant funding to supplement the millage.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

- Project Completed in 2016:** 
- Project Underway from 2016:** 
- New Project Added from 2016:** 
- Project Removed from 2016:** 

Over the past year, the City has made great progress on major capital projects. In all, 8 projects have been completed totaling \$1,207,321 in capital upgrades during 2016. Additionally, 7 projects worth \$2.62 million remain in progress.

The following list details the significant projects and investment made towards improving Flint’s infrastructure. A full list of the projects can be found on the project spreadsheet listed within this chapter.

Riverbank Park Development

Nearly \$500,000 in investments were added to the park.

Max Brandon Park Eco-Park

A \$137,500 project to naturalize parts of Max Brandon Park while incorporating community engagement through the installation of interpretative signage.

Community Built Playgrounds

In the fall of 2016, volunteers helped install new playgrounds at Berston Field House, Mott Park and Sarginson Park. The over \$200,000 in donated labor allowed over \$260,000 of new playground equipment to be installed to replace dated and unsafe existing play equipment.

Environmental Features, Open Spaces & Parks Policy

The following environmental features, open space, and parks policies are derived from the Master Plan and should shape all projects moving forward. These

policies should provide a framework for evaluating the merits of any capital improvement project. For detailed discussion of each policy, please refer to the Master Plan section and the page referenced.

Flint River Revitalization.

One of the defining projects in the revitalization of Flint should be transforming the Flint River and its riverfront into a clean and appealing recreational and entertainment destination. Projects should include increased waterfront park space, redesign of Riverbank Park, increased connectivity to Downtown and neighborhoods, and better utilization of University Pavilion.

Master Plan reference: Flint River, pp. 150-151; Flint River & Water-front, pp. 220.

River greenbelt.

Vacant land adjacent to the Flint River should be assembled for “blue/green infrastructure” that can both absorb rainwater and provide additional natural spaces for residents.

Master Plan reference: Greenbelt (Blue/Green Infrastructure), pp. 151-152.

Operation & maintenance.

Operational & maintenance Partnerships for shared responsibility for each of the City's parks should be dictated by the number of park users, with small local parks maintained by neighborhood groups and large regional parks transferred to state, county, or regional control. All parks would remain under the oversight of the City of Flint

Master Plan reference: Park Maintenance, p. 158.

Park Partners and Partnerships.

Park partners, who currently work in over 44 of Flint's 70 parks, have also contributed to capital improvements across the City, including recent work at Berston Field House, Max Brandon, Flint Park Lake, Hardenbrook, Longway, Mott, Sarginson, and Bassett parks.

Master Plan reference: Park Partners, 158.

Naturalization.

The transition of under-utilized parkland from manicured turf or fields to native vegetation represents an opportunity to increase park beauty and reduce maintenance costs.

Master Plan reference: Naturalization, pp. 160-161.

Strategic Framework.

Building off the Master Plan, the City of Flint has developed a strategic investment guide to prioritize investment in parks to areas of the greatest need, with a primary focus on youth. Based on national per capital standards for amenities, Flint's parks require over \$6,000,000 in capital improvements.

ENVIRONMENTAL FEATURES, OPEN SPACE & PARKS

CAPITAL IMPROVEMENT PLAN

The City of Flint Parks and Recreation Master Plan 2013-2017 was adopted in late 2012, which include additional information about the park system. Maintenance of a current park master plan is a requirement for eligibility of numerous grant programs and the City is urged to keep this plan updated. The City has been very successful at obtaining various grants to make improvements and, given the budget issues of the City, continued grant acquisition will be needed to make any improvements of significance. Recommendations of the park master plan should be reviewed in concert with Master Plan recommendations to ensure that the distribution of park funding is equitable, serving populations in need, and strategic investments in parks and community centers serve to stabilize neighborhoods.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
McKinley Park Improvements The City was awarded a Natural Resources Trust Fund grant from MDNR to make improvements to McKinley Park, which is located on Thread Lake. Grant to be matched by donations. Project will include tennis court renovations, improved waterfront access, new playground equipment and accessibility improvements, pavilion and overlook construction, parking improvements, and related items.	1 – URGENT Grants Submitted	\$300,000	\$0	\$300,000
Bassett Park Master Plan CIP Improvements consistent with the park master plan developed in 2012 construct storage shed and concrete slab, improve tennis courts and ball diamonds, improve playground, remove brush and hazardous trees, and add mulch to wooded area trails.	2 – IMPORTANT Grants Submitted	\$124,000	\$0	\$125,000
Hardenbrook Park Master Plan CIP Improvements consistent with the park master plan developed in 2013, including pavilion repairs, installation of a new pavilion, benches, picnic tables and grills, landscaping, and new playground equipment.	2 – IMPORTANT Grants Submitted	\$87,000	\$0	\$87,000
Longway Park Improvements CIP Developed in early 2016 through the Adopt-a-Park program, project includes removal of hazardous equipment, new play scape, improvements to the soccer/rugby fields, picnic area, and wooded area.	3 – DESIRABLE Grants Submitted	\$55,000	\$0	\$55,000
Mott Park Improvements CIP Project includes removal of hazardous equipment, new play equipment, improvements to the street hockey court, picnic area, and brush removal area. New Playground installed in 2016.	3 – DESIRABLE Grants Submitted	\$60,000	\$0	\$60,000

<p>Sarginson Park Improvements CIP Project includes removal of hazardous equipment, new ball field, bleachers, and improved picnic area.</p>	<p>3 – DESIRABLE Grants Submitted</p>	<p>\$65,000</p>	<p>\$0</p>	<p>\$65,000</p>
<p>Broome Park Improvements Improvements include a new playground as well as other improvements identified in the public planning process.</p>	<p>3 – DESIRABLE Grants Submitted</p>	<p>TBD</p>	<p>TBD</p>	<p>TBD</p>
<p>Hasselbring Park Improvements Improvements completed include a resurfaced basketball court with new benches, resurfaced ballfield with new benches, planter boxes for the Senior Center. Future improvements a new playground with additional improvements to be identified through the public planning process.</p>	<p>3 – DESIRABLE Grants Submitted</p>	<p>TBD</p>	<p>TBD</p>	<p>TBD</p>
<p>Brennan Park Improvements Phase 3 Phase 1 & 3 of the Brennan Park improvements are complete with the new playground installed in October 2015 and a new pavilion and adult fitness equipment installed in the April of 2016. Future improvements include a universal access path from the parking lot to the pavilion and playground, new signage on Howard Avenue, additional forestry work, the addition of an adjacent Land Bank parcel to the park, and resurfacing of the basketball court.</p>	<p>1 – URGENT Grant Funds Secured</p>	<p>\$150,500</p>	<p>\$65,000</p>	<p>\$85,500</p>
<p>Riverbank Park improvements Make upgrades to meet ADA standards, barrier-free access to amphitheater stage including new railings, landscaping enhancements, and kayak access to river. This project is funded by a grant from the Michigan DNR.</p>	<p>COMPLETED</p>	<p>\$500,000</p>	<p>\$0</p>	<p>\$500,000</p>
<p>Woodlawn Park Master Plan CIP Improvements include a shade structure, play equipment, shade trees, and repair tennis court.</p>	<p>COMPLETED</p>	<p>\$79,100</p>	<p>\$79,100</p>	<p>\$0</p>
<p>Bassett Park Maintenance Partnership Crim Fitness Foundation will take on maintenance and operations oversight in Bassett Park for FY 2015 under a two- year partnership agreement beginning in FY 2014.</p>	<p>COMPLETED</p>	<p>\$43,200</p>	<p>\$43,200</p>	<p>\$0</p>
<p>Max Brandon Park Playground Improvements Installation of a new playground.</p>	<p>COMPLETED</p>	<p>\$84,021</p>	<p>\$0</p>	<p>\$84,021</p>
<p>Berston Field House Playground Improvements Installation of a new playground.</p>	<p>COMPLETED</p>	<p>\$100,000</p>	<p>\$0</p>	<p>\$100,000</p>

Flint Park Lake Playground Improvements Installation of a new playground.	COMPLETED	\$60,000	\$0	\$60,000
Bassett Park Maintenance Partnership Crim Fitness Foundation will take on maintenance and operations oversight in Bassett Park for FY 2015 under a two- year partnership agreement beginning in FY 2014.	REMOVED			
Durant Park Master Plan CIP Improvements consistent with the park master plan developed in 2012, including basketball upgrades, playground equipment, sidewalk improvements, tree removal, and mower purchase.	REMOVED	\$54,339	\$0	\$54,339
Kearsley Park Softball Field Improvements Improvements to the Kearsley Park softball field, which Mott intends to use for their women’s softball team. Improvements include the installation of evening lighting, dugouts, bleachers, scoreboard, fencing, and the construction of a concession stand/clubhouse.	REMOVED	\$195,000	\$0	\$195,000
Mann Hall Park Master Plan CIP Improvements consistent with the park master plan developed in 2012, including new playground equipment, flag pole, concrete pavilion pad, playground safety surfacing, benches, and landscaping.	REMOVED	\$84,021	\$0	\$84,021
Durant Park Master Plan CIP Improvements consistent with the park master plan developed in 2012, including basketball upgrades, playground equipment, sidewalk improvements, tree removal, and mower purchase.	REMOVED	\$54,339	\$0	\$54,339
Rollingwood Park Master Plan CIP Improvements include playground equipment, horseshoe pits, flagpole lighting, new fencing, a pavilion improvement.	REMOVED	\$79,100	\$0	\$50,000

**ENVIRONMENTAL FEATURES, OPEN SPACE & PARKS
CAPITAL IMPROVEMENT PLAN**

Naturalization

Naturalization is the transition of parkland from manicured turf or fields to native vegetation. There are many benefits to naturalizing part of Flint’s park inventory including a reduction in operating expenses, the creation of a healthier environment through increased local biodiversity, and improved storm water management.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
<p>Park Maintenance Partnership Genesee County Parks and Recreation Commission and City of Flint partnership in which the County will take on maintenance and safety patrols in four of Flint’s largest parks under a pilot program. 5-year cost. The \$20,000 spent on the first year of the two year pilot project lead to over \$325,000 investment in the four Flint parks.</p>	1 – URGENT	\$100,000	\$100,000	\$0
<p>Park Naturalization Plan Develop a Park Naturalization Plan to identify and prioritize City-owned parks for naturalization and reduced maintenance. Projects identified to date include projects at Hasselbring, Lewis Street, Bassett, Broome, Dayton, and Cronin Derby Downs.</p>	2 – IMPORTANT	TBD	TBD	TBD
<p>Cronin Derby Downs – Park Naturalization/Education Project Project to promote naturalization with in underutilized Cronin Derby Downs next to Southwestern Classical Academy. Project includes installation of student designed duck habitat, vernal pond, educational signage, native grasses, shrubs, and trees. Project will provide habitat for ducks that currently roost in Southwestern’s court yards.</p>	3 – DESIRABLE	\$60,000	\$0	\$60,000
<p>Park Naturalization Project – Broome Park The City is working with Fresh Coast Capital in inactive and underutilized parkland to farm poplar trees. FCC would maintain the property for 15 - 18 years at no cost to the city and share 10% of sale revenue. Parkland would remain open to the public and educational signage would be installed. 5 acres of Broome Park was planted in 2016. 15 more will be planted in 2017 to complete the project.</p>	3- DESIRABLE	TBD	\$0	TBD

<p>Park Naturalization Project – Dayton Park The City is working with Fresh Coast Capital in inactive and underutilized parkland to farm poplar trees. FCC would maintain the property for 15 - 18 years at no cost to the city and share 10% of sale revenue. Parkland would remain open to the public and educational signage would be installed. 5 acres of Dayton Park were planted in 2016.</p>	<p>COMPLETED</p>	<p>TBD</p>	<p>\$0</p>	<p>TBD</p>
<p>Park Forestry Management The City has secured the services of Genesee Conservation District to manage tree removal within the City’s network of parks for FY 2016 through FY2020. \$32,000 is designated for FY2016 with another \$10,000 per year for the next four years. Using trained forestry staff, and informed by a street and park tree inventory that is currently underway, GCD will ensure that the City’s limited forestry funds will be used in a manner that is both equitable and efficient.</p>	<p>1 – URGENT</p>	<p>\$72,000</p>	<p>\$72,000</p>	<p>\$0</p>
<p>Bassett Park – Park Naturalization/Education Project Project to promote naturalization with in currently unusable Bassett Park, next to the Haskell Youth Center. Project includes installation of large rain garden and duck habitat to manage storm water and to naturally manage flooding at the corner of Parkhurst and Forrest Hill. Project will include interpretive signage, walking path, native wild flower garden and update curriculum created in the Max Brandon Park Naturalization / Education Project.</p>	<p>3 – DESIRABLE</p>	<p>\$35,000</p>	<p>\$0</p>	<p>\$35,000</p>
<p>Lewis Street – Park Naturalization / Education Project Project to expand the <i>Imagine Flint</i> Master Plan Demonstration Project at Lewis Street raingarden and bio-swale to increase the amount of rain water managed naturally and prevent storm water runoff into the adjacent Flint River. Project will also provide CPTED tree and brush removal, interpretive signage, repaired fishing dock / river overlook, and new bicycle amenities along the Flint River Trail.</p>	<p>3 – IMPORTANT Grants Secured</p>	<p>\$35,000</p>	<p>\$1,500</p>	<p>\$37,500</p>

<p>Hasselbring – Park Naturalization / Education Project Project will restore historic wetlands and partially daylight Brent Run Creek inside the park. The former creek once ran from Flint Park Lake to the City limit at Carpenter Road. Project will use green infrastructure to manage flooding in the park, Hasselbring Senior Center, and nearby homes. Project will build off the Max Brandon Eco-Park Project to create interpretive signage and an intergenerational environmental education component.</p>	<p>3 – IMPORTANT Grants Submitted</p>	<p>TBD</p>	<p>TBD</p>	<p>TBD</p>
<p>Max Brandon Park - Park Naturalization/Education Project Project to promote naturalization within Max Brandon Park through eco-educational curriculum, restoration of the park’s wetland, increased access through construction of a boardwalk, and hazardous tree removal.</p>	<p>COMPLETED</p>	<p>\$137,500</p>	<p>\$50,000</p>	<p>\$87,500</p>
<p>Lewis Street – Master Plan Task Force Project Developed by the Master Plan Implementation Task Force group a demonstration rain garden was installed in Lewis Street Park.</p>	<p>COMPLETED</p>	<p>\$3,000</p>	<p>\$1,000</p>	<p>\$2,000</p>

**ENVIRONMENTAL FEATURES, OPEN SPACE & PARKS
CAPITAL IMPROVEMENT PLAN**

Open Space Brownfield Remediation

Brownfields are parcels of land where the presence of environmental contamination complicates redevelopment. In addition to redeveloping brownfields for economic development and community revitalization purposes, there is a rising interest among communities to redevelop brownfields as environmental assets for active and passive recreation.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Oak Park decommissioning Located in an inaccessible area surrounded on three sides by the Buick City brownfield site, this park is proposed to be decommissioned and integrated into the redevelopment plans of the area.	3 – DESIRABLE	\$0	\$0	\$0
Chevy Commons Greening Project Michigan DEQ Surface Water Quality Initiative were secured to provide the final phase of capping at Chevy Commons.	1 – URGENT Grant Funds Secured	\$3,500,000	\$0	\$3,500,000
Chevy Commons phytoremediation Phase III Phase IV of remediation of Chevy Commons, funding is Great Lakes Restoration Initiative grant.	1 – URGENT Grant Funds Secured	\$200,000	\$0	\$200,000

Flint River Restoration

As a prime natural resource, the Flint River served as the basis for the founding of the City of Flint. Historically, the Flint River was used for drinking water, power, and transportation. Currently, the river is utilized much less, in part due to water quality and infrastructure concerns. In order for the City to successfully achieve its goal related to environmental features and open space, revitalization and enhancement of the Flint River must be a major focal point.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Flint River Restoration Project Implementation of the 2010 report “Flint Riverfront Restoration Plan”, Project will work to remove the Hamilton and Fabri Dams, restore the river banks, remove contaminated sediment behind the dam, naturalize and update sections of Riverbank Park and river banks, cap sections of the river bottom, create improved fish passages, allow for water recreation through downtown Flint, and improve the Stevens Pedestrian Bridge.	3 – DESIRABLE Multiple Grants Secured. Additional Grants Submitted	\$35,000,000	\$0	\$35,000,000



7 CAPITAL IMPROVEMENT PLAN INFRASTRUCTURE & COMMUNITY FACILITIES

In 1960, 197,000 people lived in Flint, and the community was bracing for rapid growth around its core industries. Infrastructure was in place to support over 200,000 people. Flint's population has dropped by 48% since that time, yet the City is still responsible for maintaining infrastructure systems capable of servicing its peak population.

The Master Plan establishes a coordinated vision for Flint's government facilities, infrastructure, and utilities where infrastructure and services are closely coordinated with housing, economic development, the environment, parks and open space, and transportation, as well as a community that is fiscally responsible and able to support these systems in a fair and equitable way.

This chapter represents perhaps the most substantial capital challenges to the City and consists of the highest cost items. Given the many unknowns at this time of the water infrastructure, this chapter was developed and formatted to be adaptable and flexible dependent upon further data collection and analysis that will occur extensively throughout the FY16-17 year. The attempts at project costs and timeline will fluctuate throughout the year, dependent on the emergency situation that currently exist in the City.

Flint Water Crisis

In April 2014, the City of Flint formally transitioned its primary source of drinking water by connecting to the Flint River. As a result of this switch, the corrosive nature of the water entering the

distribution system from the City's water treatment plant treated river water has led to an accelerated aging process of the City's water infrastructure. More information can be found on this in **Chapter 3: Responding to the Flint Water Crisis.**

Perhaps the most damning result of this switch has been the exposure of lead to residents of Flint and in particular children of Flint. Identifying the extent of damage to the water distribution system and the location of lead service lines is a critical priority and a necessary step before replacing and repairing the affected infrastructure occurs.

This must occur to fully resolve the ongoing public health emergency.

Furthermore, upgrades and modifications to the City's water treatment plant are required in order to process KWA water from Lake Huron. A raw water reservoir is also required in order for the City to reliably serve the community. The temporary chemical feed systems at Cedar Street and Westside Reservoirs must be replaced to support disinfection and corrosion control practices. And The City of Flint does not have the resources to cover these costs.

With a roughly estimated cost for replacement of all City-owned water mains and property service lines sitting around approximately \$1 billion, State and/or Federal help is urgently needed to accomplish these tasks. Rehabilitation of the City's Water Treatment Plant,

including the raw water reservoir, is estimated at \$105 million.

CIP Vision for Infrastructure & Community Facilities

Imagine an efficient and reliable system of infrastructure and community services that ensures the safety of the Flint community meets the needs of residents and supports investment in businesses, innovation, and the local economy. Imagine a Flint that serves its residents through an effective local government and quality facilities. Imagine a Flint that invests in infrastructure in order to spark new development, restore the environmental integrity of the area, meet the needs of various activities throughout the City, and is not only capable, but is also dependable.

CIP Overview

The City has an overwhelming task of addressing its numerous dated facilities and the tremendous amounts of inefficient and aging water and sewer possessions. Immediate improvements to the water and sewer system should be prioritized so they address the areas contributing to the most substantial water losses within the city.

Future capital improvements in place types with lower densities should have a lower priority in order to ensure the highest cost/benefit ratio.

Immediate actions should also be taken to right-size the facilities within the city. Substantial decline in staffing levels as well as decades of inadequate preventative maintenance has resulted in millions of dollars needed to just improve these public places to satisfactory levels. A study shall be conducted to look at alternatives for major sites such as City Hall and the Police and Fire headquarters, while also considering the disposition of the buildings to be vacated and sold.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

Project Completed in

2016: 

Project Underway from

2016: 

New Project Added from

2016: 
Project Removed from
2016: 

In all, there were 2 major projects completed, totaling \$248,000 in capital upgrades. Also, an additional 12 remain in progress. The completion of these will result in an additional \$11.9 million in City-led upgrades to its systems.

The following list details the significant projects and investment made towards improving Flint’s infrastructure:

Infrastructure & Community Facilities Policy

The infrastructure and community facilities policies are derived from the Master Plan and should shape all projects moving forward. These policies should provide a framework for evaluating the merits of any capital improvement project. For detailed discussion of each policy, please refer to the Master Plan section and the page referenced.

Infrastructure & Land Use Plan alignment.

The provision of infrastructure and community services throughout the City should be aligned with the Land Use Plan, with land use typologies informing “right-sizing” and investment decisions.

Master Plan reference: Infrastructure & Future Land Use, pp. 175-176.

Sustainability.

Green technology should be leveraged to reduce energy costs, improve air quality, and increase long-term sustainability.

Master Plan reference: Sustainable & Renewable Infrastructure, p. 177.

Facility maintenance & efficiency upgrades.

To ensure the long-term viability of City facilities, the City should conduct on-going maintenance, employ new technologies, increase energy efficiency, and identify consolidation opportunities.

Master Plan reference: Government Facilities, p. 178.

Dams.

The Hamilton and Utah Dams should be removed, the Fabri Dam should be reconstructed, the Kearsley Dam should receive maintenance, the need for the Holloway Dam should be assessed.

Master Plan reference: Dams, p. 186.

SAW Funding.

\$2 million from the MDEQ was secured as part of the storm water, Asset Management, and Wastewater (SAW) program to improve asset management of the wastewater and storm water collection systems.

**INFRASTRUCTURE & COMMUNITY FACILITIES
CAPITAL IMPROVEMENT PLAN**

City Hall

Flint’s administrative center consists of a number of buildings, including City Hall, City Hall North, City Hall South, and City Hall Dome, which collectively total more than 187,000 square feet. According to City Facilities, Grounds, & Maintenance Division staff, the condition of these buildings ranges from poor to fair. Constructed in 1956, these four buildings house a majority of Flint’s governmental operations and are in need of extensive upgrades, repairs, system replacement, and maintenance. Significant reductions (well over 50% from historic levels) in staffing at departments housed at the City Hall complex has resulted in significant portions of the buildings being unused or used for storage.

The list of necessary capital improvements for the four City Hall buildings is only a portion of what is likely needed, and there are serious questions as to the long-term viability of the buildings considering their age, condition, and cost of corrections needed. The City should consider a study of alternative options for right-sizing their facilities to meet projected staffing needs, either in a renovated facility that is purchased or leased or a new facility constructed in the downtown area. The study would also need to consider the disposition of the existing complex and buildings to be vacated if the study shows this to be the most viable option.

The administrative center complex at one time was considered to be an architectural masterpiece; but due to outdated components, lack of maintenance and energy inefficiencies the buildings require extensive emergency repairs and extensive maintenance has been deferred due to budgetary constraints. City Hall north is essentially vacant due to staff reduction. The existing windows in all buildings are single pane, aluminum frame and highly inefficient, as are the light fixtures inside and outside the buildings. The boilers and chillers are 80% efficient at best and in need of re- placement soon. The marble on the façade, once a major contributor to the beauty of the building, suffers from water intrusions that have caused these large marble slabs to fall off the building. Significant information technology improvements are needed throughout to modernize computer servers, other hard- ware, and cabling. The elevators at City Hall break down regularly and create a safety hazard to users trapped inside until repairs can be made. The pavement in the parking lot used by employees is in very poor condition. Sidewalks are in various states of disrepair and in need of replacement.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
<p>Study to determine options for housing City Hall staff Commission a comprehensive study of the Civic Center Complex to determine best option to right-size in the most cost-effective manner. City should enlist a committee to develop a comprehensive scope of services for a Request for Proposals that includes budget to adequately investigate the existing facilities and options and costs available to house City operations long-term.</p>	1 – URGENT	TDB	TDB	TDB
<p>City Hall Dome drains Repair roof drains at the City Hall Dome to fix leaks.</p>	1 – URGENT	\$1,640	\$1,640	\$0

Emergency repairs Annual cost of \$225,000 for emergency repairs to various City facilities.	1 – URGENT	\$4,500,000	\$4,500,000	\$0
Walkway between Police and City Hall Repair and seal walkway between Police Station and City Hall.	2 – IMPORTANT	\$20,000	\$20,000	\$0
City Hall Dome repairs Various maintenance and repairs to the City Hall Dome.	2 – IMPORTANT	\$90,000	\$90,000	\$0
Window replacement Replacement of single pane, aluminum frame windows in City Hall. Energy Analysis Report identified payback of 15 years in energy savings.	2 – IMPORTANT	\$400,000	\$400,000	\$0
City Hall façade Remove existing and replacement of the façade of City Hall. Existing marble siding is falling off the building and is a safety hazard. Gaps behind the marble allow water intrusions, exacerbating the problem.	2 – IMPORTANT	\$3,000,000	\$3,000,000	\$0
City Hall 5th Street parking lot Rehabilitation of parking lot at City Hall.	3 – DESIRABLE	\$132,000	\$132,000	\$0
Information technology improvements Includes a variety of IT improvements, including backup servers, new Dell workstations, routers and switches, software, cabling and fiber, enterprise Wi-Fi and internal telephone upgrades. Long-term needs should be assessed to prioritize and fund projects.	2 – IMPORTANT	\$4,280,246	\$4,280,246	\$0
City Hall Elevator Removal and installation of two new efficient elevators at City Hall.	2- IMPORTANT	\$400,000	\$400,000	\$0
SAW Program Funds from MDEQ to improve asset management of the wastewater and storm water collection systems.	1-URGENT Grant Funds Secured	\$2,000,000	TBD	\$2,000,000
City Hall North Building Roof Repairs to the roof on the City Hall North Building to fix areas that currently leak.	1 – URGENT	\$99,384	\$99,384	\$0
City Hall chiller Replace 1 of 2 chillers at City Hall.	1 – URGENT	\$155,000	\$155,000	\$0
City Hall heating/cooling system Total replacement and upgrades of controls and boilers/chillers to the City Hall heating/cooling system.	2 – IMPORTANT	\$3,300,000	\$3,300,000	\$0
Council Chambers light fixtures Convert existing light fixtures to LED to save energy costs.	2 – IMPORTANT	\$24,000	\$24,000	\$0

City Hall Ceilings Replacement of ceiling tiles throughout City Hall. Improvements to multiple offices have been completed.	3 – DESIRABLE	\$70,000	\$70,000	\$0
Council Chambers renovations Renovations to Council Chambers to include windows, painting, and ceiling, and IT upgrades to add projection screens.	3 – DESIRABLE	\$350,000	\$350,000	\$0
North Building Elevator Replace and repair the North Building elevator due to flooding.	2-IMPORTANT	\$100,000	\$100,000	\$0
Building Management System Upgrades to the BMS controls are on-going.	COMPLETE	\$148,000	\$148,000	\$0
City Hall 7th Street parking lot Rehabilitation of parking lot at City Hall.	COMPLETE	\$100,000	\$100,000	\$0
Separate utility meters Separate the utility meter for City Hall, Police HQ, and Fire Station #1 to monitor energy use.	REMOVED			

Other City Facilities

City facilities outside of the City Hall complex, public safety departments, and public works are limited. The primary facilities in this category would include the Street Maintenance & Sanitation Department, public parking lots, District Court, and anything else that does not fit into another category or department. All of these facilities have needs for various maintenance, etc. and should be considered to generally be important to fund as soon as possible. A number of projects were identified during discussion with City staff and are presented below; however, a comprehensive evaluation of the Street Maintenance & Sanitation Department facility has not been performed and is needed to ensure all projects are accounted for.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Street Maintenance & Sanitation Department facility improvements Various capital improvements needed at the facility that would be identified following a comprehensive audit of the facility.	2 – IMPORTANT	TDB	TDB	TDB
Building, Safety, Inspections Upgrades Complete remodel and renovation addressing HVAC, RTU, and counter space. Restricted permitting revenue funds are available.	1-URGENT	\$200,000	\$200,000	\$0

INFRASTRUCTURE & COMMUNITY FACILITIES
CAPITAL IMPROVEMENT PLAN

Water Department

The Water Department is responsible for the treatment and distribution of potable water to customers utilizing an extensive infrastructure system. Their facilities include six (6) dams, numerous buildings and related facilities, pumping stations and storage facilities, and conveyance system of approximately 600 miles of water distribution and transmission pipes and appurtenances. The existing City water system was designed to service a much larger population and significantly more industry than is currently being served.

The various facilities of the Water Department have been grouped below to allow for an individual discussion of each. The current water system has twice the storage and pumping capacity that is needed to operate the system. A number of options to reduce pumping and storage were identified in a Water Reliability Study (prepared by Rowe and Potter Consulting in 2013). Implementing these operational changes going forward will allow the city to operate more cost effectively and concentrate on upgrading and maintaining key infrastructure.

It is important to note that the City's water system suffers from a number of problems which can be at least partially corrected by making the necessary capital improvements, which should be prioritized and done to be consistent with the implementation of the Master Plan and modified as needed. The most prevalent problems were discussed in great detail in the Water Reliability Study, including the age and efficiency of the water system. Much of the water distribution system is over 70 years old and is in need of rehabilitation or replacement. There is a significant amount of water-main in the system that is over 70 years old, prone to breaks, and unable to provide modern pressures and fire flows.

Water system efficiency analysis indicated that the City of Flint system is at 67% (i.e., only 67% of the water that was purchased from Detroit was recovered by user fees). This indicates that the city has significant leaks, inaccurate meters and/or illegal connections to the system. This inefficiency results in lost revenue in the range of \$1.5 million to \$2.0 million dollars per year. A program to improve the water system efficiency should be put in place. A high priority should be placed on implementing a program to reduce the unaccounted for water.

**INFRASTRUCTURE & COMMUNITY FACILITIES
CAPITAL IMPROVEMENT PLAN**

Dams

The six dams owned and operated by the City are critical to the water supply system of the City, as well as providing various recreational opportunities. Various studies have been done on the dams to determine their condition and future plans for either replacement or removal. Improvements to Hamilton Dam, built in 1920, have been mandated by the state due to its poor condition and deteriorating structural deficiencies. A study was completed by the City in 2008 that evaluated various options. Hamilton Dam is located just upstream from Fabri Dam. Fabri Dam is an inflatable dam in the downtown area constructed in 1979 for visual and recreational enhancement. The 2008 study reviewed options for its removal.

Utah Dam was built in 1928 to prevent industrial oil discharges from entering the City’s water intakes and is located downstream from both Holloway Reservoir and Kearsley Creek. Utah Dam serves no viable purpose and the gates are permanently locked in an open position. Utah Dam has been recommended for removal. Holloway Dam was constructed in 1953 for potable water supply and flow augmentation of wastewater effluent. The Holloway Reservoir serves as emergency back-up supply of water, with a storage capacity of 17,500 acre-feet of water, and is the structure furthest upstream in the system. Kearsley Dam, constructed in 1928 for water and ice supply, has a storage capacity of 1,800 acre-feet and is used primarily for recreation and occasional flow augmentation. Kearsley Creek joins the Flint River a short distance downstream from the dam just upstream from Utah Dam.

Thread Dam, also built in 1928, impounds 80 acres of water on Thread Creek, providing recreational opportunities. Thread Creek joins Swartz Creek west of the lake, with Swartz Creek flowing into the Flint River downstream of the other five dams. Capital projects on the six dams that require expenditures of City funds should be kept to the minimum needed to prevent further degradation of the dams and to meet regulatory requirements until such time as higher priority projects in the City have been completed. In accordance with the Flint River Restoration Plan, dams that can be removed should be considered for removal and funding sought from various sources that promote dam removal for river restoration and removal of barriers for boating and fish movement.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Thread Dam improvements Replace dam.	1 – URGENT	\$655,600	\$655,600	\$0
Hamilton Dam Removal Removal of the Hamilton Dam.	1 – URGENT	\$3,500,000	\$0	\$3,500,000
Holloway Dam Drum Gate Rehabilitation	2 –IMPORTANT	\$1,600,000	\$1,600,000	\$0
City-Wide Dam Inspection & Maintenance Plan Develop a comprehensive plan to address the City’s six failing and/or obsolete dams along the Flint River.	2 –IMPORTANT	TBD	TBD	TBD

**INFRASTRUCTURE & COMMUNITY FACILITIES
CAPITAL IMPROVEMENT PLAN**

Buildings & Related Facilities

The Water Department has a number of buildings and related facilities for which they are responsible. The most significant is the Water Treatment Plant (WTP) located at 4500 N. Dort Highway, which includes Plant 2 (Plant 1 has been decommissioned), water testing laboratory and a number of smaller facilities. The WTP was put into service in 1954 and significant upgrades will be needed for producing potable water in the future. Prior to full scale production in 2014, the WTP served as a backup facility and operated an average of 20 days per year. Since October, 2015, the City has purchased potable water from the Great Lakes Water Authority. A significant number of upgrades, replacement of equipment, and corrective maintenance actions are required for the WTP to receive raw water, properly treat it through the entire process, and transmit finished water to the conveyance system. In addition to the facilities at the WTP, the Water Department is also responsible for the Water Service Center (located at 3310 E. Court Street) and the Water Department has a need for a variety of large vehicles and other equipment.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Electrical upgrades Electrical upgrades at various facilities.	1 – URGENT	\$1,167,100	\$1,167,100	\$0
Fencing Water plant security fencing.	1 – URGENT	\$109,300	\$109,300	\$0
Vehicles dump trucks, flatbed, tractor, etc. Annual cost for 6 years.	2 - IMPORTANT	\$13,631,400	\$13,631,400	\$0
SCADA upgrades - In Progress Upgrades of Supervisory Control and Data Acquisition (SCADA) to allow system to operate more efficiently and with lower labor costs by using SCADA to operate and analyze the water system and its operation.	1 – URGENT	\$836,400	\$836,400	\$0
Security cameras - (2 installed, need 3 more) Install security cameras at water treatment plant.	1 – URGENT	\$7,000	\$7,000	\$0
Phosphoric acid feed system - Partially Complete Phosphoric acid feed system for water treatment. Temporary feed system set up, long term system for KWA system needs to be established.	1 - URGENT	\$185,800	\$185,800	\$0
Roof replacements - Partially complete At various pump stations throughout the system. West Side reservoir & pump station complete. Cedar Street reservoir & pump station and Torrey Rd. booster station still needed.	1 – URGENT	\$500,000	\$500,000	\$0

Water Plant rehabilitation - In Progress Drinking Water Revolving Fund	1 - URGENT	\$60,000,000	TBD	\$60,000,000
Raw Water Reservoir	1 - URGENT	\$42,000,000	TBD	TBD
Sodium Hypochlorite Feed System Temporary feed system for boosting residual disinfectant to support inactivation of pathogenic organisms.	1 - URGENT	\$39,300	\$39,300	\$0
Sodium Hydroxide Feed System Temporary feed system for increasing pH of water to support corrosion control and reduce lead from leaching into drinking water.	1 - URGENT	\$165,000	\$165,000	\$0
Post filtration system Post filtration system for water treatment process.	REMOVED			

**INFRASTRUCTURE & COMMUNITY FACILITIES
CAPITAL IMPROVEMENT PLAN**

Pumping Stations & Storage Facilities

The Water Department operates several pumping and water storage facilities.

-Dort Reservoir and Pumping Stations No. 3. (PS #3) and No. 4 (PS #4) – located at the WTP, the reservoir is a 20-million gallon (MG) ground storage facility. This facility was constructed in 1966 and was used primarily for emergency water storage and for use during peak water demand periods. The Dort reservoir will be repurposed as one of many water plant modifications that are expected to commence in the fall of 2017. PS #4 total pumping capacities is 46 million gallons per day (MGD) with a firm pumping capacity of 26 MGD. The pumping station was rehabilitated in 1994 with two new 20 MGD pumps and one 6 MGD pump to induce turnover of the Dort Reservoir. This pumping station has primarily been used to provide supply from the Dort Reservoir during emergency situations and peak demand events. A 2.0 MG elevated water storage tank is also located at the WTP that is used primarily for emergency water storage and as a pressure buffer. The elevated tank fills and drains as system demands and pressures fluctuate. A 3.0 MG ground storage tank is also located at the WTP complex. This storage tank was constructed in 1954 and is used primarily as an emergency water supply and pumping source during peak demand events.

-Cedar Street Reservoir and Pumping Station – the Cedar Street Reservoir is a 20 MG ground storage facility located between 1-69 and Swartz Creek, off of Cedar Street. This facility was constructed in 1948 and is primarily used as an emergency water supply and a pumping source during peak demand events. Many of the pumping station’s electrical controls were updated in 2015. The station’s water reservoir and pumping system requires significant attention for improving water quality and pumping efficiencies. The pumping station is equipped with three pumps installed in 1948 and are primarily used to supply water from the Cedar Street reservoir during emergency events and peak demand periods. This pumping facility has a total pumping capacity of 30 MGD and a firm pump capacity of 18 MGD. Pump operation and filling of the reservoir can be controlled from the WTP or manually at the pumping station. The pumping station is equipped with newer but temporary chlorination facilities to improve chlorine residuals in distribution system waters as needed.

-West Side Reservoir and Pumping Station – the West Side Reservoir is a 12 MG ground storage facility located near Mackin Road and Jean Avenue. This facility was constructed in 1970 and is primarily used as an emergency water supply and a pumping source during peak demand events. The West Side Pumping Station is equipped with four pumps, all installed in 1970, and has a total pumping capacity 24 MGD with a firm pump capacity of 16 MGD. Pump operation and filling of the reservoir can be controlled from the WTP or manually at the pumping station. The pumping station is equipped with newer but temporary chlorination facilities improve chlorine residuals in distribution system waters as needed.

-Torrey Road Pumping Station – the Torrey Road pumping station is equipped with two pumps installed in 1954. The station has a total pump capacity of 6.8 MGD and a firm pump capacity of 2.8 MGD. The primary function of this station is as an in-line booster pumping station to provide increase pressures to the southwest portion of the city. This pumping station takes suction from the 24” transmission main along Hammerberg Road and discharges to the 18” transmission main supplying the southwest pressure district. There is no standby power provided to this pumping station.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Pump replacement Pump station #3 pump with variable frequency drive (VFD).	1 – URGENT	\$140,000	\$140,000	\$0
Valve rebuild Elevated tank altitude valve.	2 – IMPORTANT	\$54,600	\$54,600	\$0

<p>Pump replacement Replace pumps 1 and 2 at pump station #4 new pumps with VFD. Pump # 2 has been replaced. Pump # 1 still needed</p>	<p>1 – URGENT</p>	<p>\$270,000</p>	<p>\$270,000</p>	<p>\$0</p>
<p>Electrical upgrades New feeder to pump station 4.</p>	<p>REMOVED</p>			
<p>Lift pump station Plant 2 to Dort Reservoir.</p>	<p>REMOVED</p>			

Conveyance Systems & Appurtenances

The conveyance system of the Water Department includes all transmission and distribution pipes, valves, hydrants, and water meters. The conveyance system of the City of Flint consists of water mains ranging in size from 4" to 72" in diameter. Many of these mains exceed 70 years old, and the majority constructed of cast iron or ductile iron pipe up to 24" in diameter. Transmission mains larger than 24" are primarily constructed of steel piping. A majority of the system has adequate transmission piping to convey sufficient flows and pressure for fire protection. However, the distribution and transmission systems are old and in serious need of replacement. A large number of water main breaks occur every year and are repaired by staff, with a significant number of breaks occurring due to the harsh 2013-14 winter season. These breaks result in water service disruptions and potential water quality problems to customers. The system appurtenances are generally over 50 years old and in constant need of repair or replacement also.

As projects are considered, opportunities should be evaluated to right size the water distribution system and make the most effective and efficient use of existing infrastructure. In accordance with the Master Plan, infrastructure may be modified to provide the level of service appropriate for a given place type.

The information below is summarized directly from the Water Reliability Study.

- Piping System.** Much of the City of Flint's water distribution system is over 70 years old and is in need of rehabilitation or replacement. There is a significant amount of 4" water main in the system that is over 70 years old, prone to water main breaks, and unable to provide modern pressures and fire flows. The 20-year plan for the water distribution system is twofold: 1) rehabilitate or replace the primary transmission system that serves the City and 2) abandon 4" water mains where there is a suitable parallel main or replace the 4" with 8". The priority of these replacements should be consistent with the needs of the Master Plan implementation. The Water Department has also included replacement of 3,800 feet of transmission mains annually, the prioritization of which should consider severity of current problems, needs for implementation of the Master Plan, an ability to service high water users adequately.
- Valves.** The City of Flint distribution system currently has a total valve count of 7,258 valves to be operated and maintained (20 72" valves, 661 24"-72", 737 16"-20", 1,398 12", and 4,462 <12). Critical valves are 16" and larger valves that are on the primary transmission mains around the city and in the event of a break in a major transmission main, valve failure, or multiple valve failures, could result in shutting down a significant portion of the city. The Water Reliability Study noted that there are 1,418 critical valves in the system and these valves should receive primary attention. Primary attention would consist of operating the valves on a rotating two-year basis and making all repairs and replacements that are necessary. Approximately 700 critical valves would be operated and maintained each year. Subcritical valves are the 12" valves on minor transmission mains and the failure of one or more of these valves could result in shutting down a residential area. There are 1,398 subcritical valves in the system. These valves should receive secondary attention which would consist of a 5-year plan for operation and maintenance. This would require that approximately 280 valves be operated and maintained each year. Normal valves are any valve smaller than 12" and the failure of one or more of these valves would shut down a small residential area. There are 4462 of these valves in the system and these valves should receive operation and maintenance attention on a 10-year rotating basis. Approximately 450 valves would require attention each year. The total valve operation and maintenance program would require that approximately 1,430 valves receive routine maintenance each year in addition to any emergency repair and replacement that is required during the course of a year.
- Hydrants.** The City of Flint has 3,605 hydrants in the water system and many are in excess of 50 years old. In the spring of 2010 the City purchased 80 hydrants to begin replacing old hydrants. Similar to the asset management approach to the valve maintenance, the plan for hydrants would include a transition from reactive maintenance to planned maintenance and replacement. The goal would be to analyze the hydrant age in the system and begin to change out hydrants in excess of 50 years old and then over a period of twenty years create a system where hydrant age did not exceed 25 years.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Valve Repairs	1 - URGENT	\$200,000	\$200,000	\$0
Valve excavation Gain access to over 600 paved over system valves to evaluate, maintain accessibility, and replace if necessary.	1 - URGENT	\$2,000,000	\$2,000,000	\$0
24" Transmission main replacement 3800' of 24" transmission main at various locations annually. Project is designed in 5 segments with one segment scheduled for completion each year.	1 - URGENT	\$18,000,000	\$18,000,000	\$0
Water line loop Install 24" loop at the WTP to increase distribution options.	2 – IMPORTANT	\$100,000	\$100,000	\$0
Raw water line Provide raw water line to Pump Station 4.	2 – IMPORTANT	\$636,500	\$636,500	\$0
Water Main Replacement Replace various sections of residential water mains with a goal of 3800' per year.	2 - IMPORTANT	\$16,000,000	\$16,000,000	\$0
Yard valves Replace yard valves, cost is for 6 years.	2 – IMPORTANT	\$1,000,000	\$1,000,000	\$0
Valve exercising Operate the approximately 8,000 system valves throughout the system on a 2 - 10 year basis.	2 - IMPORTANT	\$500,000	\$500,000	\$0
Water Meters – Partially Complete Annual replacement of water meters throughout the system, cost is for 6 years.	2 – IMPORTANT	\$8,500,000	\$8,500,000	\$0
Lead Service Line Replacement Replace lead service lines leading to customer's residence and businesses.	Added to Chapter 3			
Hydrant replacement program Replace hydrants throughout the City on 20-25 year rotation, cost is for 20 years. FY 15 cost \$250,000 with annual increases of 3% assumed.	REMOVED			

Sewer Department

The Sewer Department is responsible for the collection and treatment of wastewater at various facilities, most notably the 50 MGD wastewater treatment plant referred to as the Water Pollution Control Facility (WPCF) located at G-4652 Beecher Road. The City of Flint also accepts wastewater from the Beecher Metropolitan Sewer District (BMSD). The WPCF has a peak capacity of approximately 85 MGD. The City has an extensive sanitary and storm sewer collection and treatment system that includes approximately 569 miles of gravity sanitary sewers and force mains, 11 pump stations (1 additional pump station on the system is operated by BMSD), an 8-foot 6-inch deep tunnel (10 MG of storage), a 10 MG Retention Treatment Basin (RTB), WPCF and a number of associated buildings, and 350 miles of storm sewers.

The WPCF provides primary and secondary treatment to the sanitary wastewater, with primary treatment consisting of physical removal of suspended solids via grit tanks and primary sedimentation basins. Secondary treatment is performed through the activated sludge process, which consists of aeration and final settling tanks. Chlorination and de-chlorination, using liquefied and gaseous chlorine and sulfur dioxide, is used to disinfect the final effluent prior to its discharge into the Flint River. Even though the sanitary and storm sewer systems are separated, the 10 MG capacity of the RTB can be exceeded, resulting in a discharge to the river. All overflows receive skimming, settling, and disinfection prior to release. Since January of 2009, the City has experienced 11 partially treated discharges.

The City was awarded a State Revolving Fund (SRF)/Strategic Water Quality Initiatives Fund (S2) Grant from the Michigan Department of Environmental Quality (MDEQ) in 2011 (study prepared by Rowe and Fishbeck, Thompson, Carr, & Huber, Inc. in 2013). The scope of the grant-funded engineering study included smoke testing in areas of the City suspected of containing sources of inflow and infiltration (I/I), as well as a sanitary manhole inspection program focusing on the manholes located along the creeks and rivers where water was suspected of entering the sanitary system during high river elevations. The Sewer System Evaluation Study (SSES) included smoke testing of approximately 2,397 manholes and the inspection of 256 manholes along the rivers. Although the sanitary system is separated, wet weather brings significant flow increases into the system. Most footing drains are connected to the sanitary system; however, during these large rain events, the City’s deep tunnel and RTB’s capacity can be exceeded, and it results in discharges from the RTB to the Flint River.

Green Infrastructure

The Master Plan calls for the development of green infrastructure to absorb rainwater, reduce flooding, and lessen the burden on the City’s sewer infrastructure. The City should also promote the use of Best Management Practice (BMPs) and Low Impact Development (LID) techniques that help protect and restore water quality while reducing the quantity of storm water run-off throughout the City. Vacant or underutilized parcels within Green Neighborhood and Green Innovation place types may also present opportunities for large scale green infrastructure projects.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Green Infrastructure Assessment Undertake a study to identify opportunities for the implementation of large scale green infrastructure projects that will limit the volume of storm water entering the sewer system.	1 – URGENT	TDB	TDB	TDB

Buildings & Related Facilities

The Sewer Department operates the Water Pollution Control Facility (wastewater treatment plant) and 29 buildings at the WPCF grounds. The buildings on the grounds of the WPCF are of variable age and condition and require a variety of upgrades, replacement of equipment, and regular maintenance to properly treat the wastewater collected from system users and discharge it to the Flint River consistent with regulatory requirements. The Department has similar needs to that of the Water Department for large vehicles and other equipment.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Wastewater Plant roof Repair roof at WPC.	1 – URGENT	\$106,100	\$106,100	\$0
Disinfection process upgrades Improvements to processes for treating wastewater.	1 – URGENT	\$150,000	\$150,000	\$0
Lighting upgrades Lighting upgrades at WPC.	1 – URGENT	\$212,200	\$212,200	\$0
Samplers Samplers at WPC.	2 – IMPORTANT	\$35,000	\$35,000	\$0
Air compressor Air compressor.	2 – IMPORTANT	\$44,000	\$44,000	\$0
Primary tank rebuild Rebuild primary tank at WPC.	2 – IMPORTANT	\$75,000	\$75,000	\$0
Lighting panel upgrades Upgrade lighting panel at WPC.	2 – IMPORTANT	\$87,400	\$87,400	\$0
Coarse bubble diffusers Coarse bubble diffusers at WPC.	2 – IMPORTANT	\$100,000	\$100,000	\$0
Meter replacement Final effluent meter.	2 – IMPORTANT	\$109,300	\$109,300	\$0
Meter replacement Battery A influent meter.	2 – IMPORTANT	\$109,300	\$109,300	\$0
Air diffuser upgrades Battery B.	2 – IMPORTANT	\$109,300	\$109,300	\$0
Vehicle storage addition Addition to vehicle storage.	2 – IMPORTANT	\$130,000	\$130,000	\$0
Controls Root blowers at WPC.	2 – IMPORTANT	\$175,000	\$175,000	\$0
HVAC equipment HVAC improvements at WPC.	2 – IMPORTANT	\$200,000	\$200,000	\$0
Aeration blower replacement Replace aeration blower at WPC.	2 – IMPORTANT	\$238,700	\$238,700	\$0
Final tank installation Install final tank at WPC.	2 – IMPORTANT	\$274,488	\$274,488	\$0
Sludge cake storage Storage facility for sludge cakes.	2 – IMPORTANT	\$327,800	\$327,800	\$0
Concrete repairs Major concrete repairs at WPC.	2 – IMPORTANT	\$380,000	\$380,000	\$0

Blower header insulation Insulate blower header.	2 – IMPORTANT	\$437,100	\$437,100	\$0
Grit piping Battery B.	2 – IMPORTANT	\$491,700	\$491,700	\$0
Concrete coatings Concrete coatings.	2 – IMPORTANT	\$600,000	\$600,000	\$0
Solids disposal Ultimate disposal of solids.	2 – IMPORTANT	\$800,000	\$800,000	\$0
Headworks & bar screens Headworks and bar screens at WPC.	2 – IMPORTANT	\$1,000,000	\$1,000,000	\$0
Lab Remodeling of lab, new equipment, sample lines, and ventilation.	2 – IMPORTANT	\$1,000,000	\$1,000,000	\$0
4160 volt switchgear 4160 volt switchgear at WPC.	2 – IMPORTANT	\$2,185,500	\$2,185,500	\$0
Battery A grit chamber Replacement of Battery A grit chamber.	2 – IMPORTANT	\$5,500,000	\$5,500,000	\$0
Modulating Valve B grit Butterfly Valve	2 – IMPORTANT	\$100,000	\$100,000	\$0
HVAC upgrades - In Progress HVAC upgrades at WPC.	1 – URGENT	\$400,000	\$400,000	\$0
Final tank retrofits - In Progress At final 4 tanks at WPC.	2 – IMPORTANT	\$695,200	\$695,200	\$0
Isolation gates Battery B isolation gates.	REMOVED			
Heavy mobile equipment Purchase of heavy equipment required to respond to emergency repairs.	REMOVED			
Sodium hypochlorite Purchase of sodium hypochlorite used in water treatment process.	REMOVED			
Vehicles, dump trucks, vector, etc. Annual cost for 20 years.	REMOVED			

Pumping Stations & Storage Facilities

As mentioned above, the City operates 11 pump stations. Storage facilities include an 8-foot 6-inch deep tunnel (10 MG of storage) and a 10 MG Retention Treatment Basin (RTB). The deep tunnel was constructed of concrete in the late 1970s as part of the RTB project. The flow is transported through a series of interceptors to the three main feeder pump stations (East Pump Station, Third Avenue Pump Station, and Northwest Pump Station). These three main pump stations then pump the flow to the WPCF for treatment. Both the East Pump Station and the Northwest Pump Station are located next to the WPCF. The Third Avenue Pump Station is located southeast of the WPCF and requires 18,181 feet of force main to send the flows to the WPCF.

The 8-foot 6-inch tunnel is upstream of the East Pump Station and discharges to the station. During large rain events, the tunnel is used for storage. The flow is allowed to accumulate in the tunnel and the East Pump Station pumping rate is reduced to allow the flow from the Northwest Pump Station and Third Avenue Pump Station to be pumped to the WPCF without restriction. The latter have essentially no storage capability, and must pump according to flow received. If the flows from the Northwest Pump Station and Third Avenue Pump Station exceed the capacity of the WPCF, the excess flow is diverted to the 8-foot 6-inch tunnel through the same 48” pipe that normally conveys sewage from the East Pump Station to the WPCF. Should the rain event be large enough to fill the tunnel, then flow from the tunnel will overflow to the 10 MG RTB for temporary storage. The RTB provides skimming and disinfection should its capacity be exceeded, prior to discharging flows to the river.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Electrical upgrades Various lift stations.	1 – URGENT	\$82,000	\$82,000	\$0
Replace lift station. Replace lift station 6.	1 – URGENT	\$250,000	\$250,000	\$0
Replacement pumps At northwest pump station.	1 – URGENT	\$318,300	\$318,300	\$0
Switchgear at EPS Replace switchgear at East Pump Station.	1 – URGENT	\$450,900	\$450,900	\$0
Replace pumps East pump station.	1 – URGENT	\$655,600	\$655,600	\$0
Replacement pump Third Avenue pump station.	1 – URGENT	\$1,700,000	\$1,700,000	\$0
Electrical switchgear Third Avenue pump station.	1 – URGENT	\$1,900,000	\$1,900,000	\$0
High pressure header Third Avenue pump station.	2 – IMPORTANT	\$300,000	\$300,000	\$0

Conveyance Systems & Appurtenances

The City has an extensive sanitary sewer collection and treatment system that includes approximately 569 miles of 8” to 72” gravity sewers and force mains, with manholes at regular intervals. The majority of the gravity sewers were constructed between the 1920s and 1950s, consisting mostly of vitrified clay, concrete, and some newer polyvinyl chloride (PVC) segments. The sanitary manholes are either block or precast concrete. Televising portions of the system during the 2011 SSES revealed joint integrity to have been compromised along sections of the interceptors adjacent to Swartz and Thread Creek. Both sections of interceptors televised had root balls reducing the flow capacity at multiple locations by as much as 80 to 90%. The video also shows stretches of pipe with root infiltration at every joint, reducing flow capacity ranging from 15 to 50%. Some minor infiltration was observed; however, the root balls hindered the camera progress through the sections of pipe at the creek crossings and therefore potential inflow from the creeks was not determined. The integrity of the pipe itself appeared to be sound; however, most joints appeared to have some separation where root infiltration was present. This separation could potentially allow infiltration to occur during wet weather conditions. There was some sediment buildup observed in a few spots along the interceptors; however, there was not enough to reduce capacity of the interceptor.

Manhole inspections were performed on the manholes that parallel Swartz, Carman, Gilkey and Thread Creeks. The creeks are upstream of Meter 9 which appears to have significant (I/I). Ninety-three (93) manholes with perforated covers, which would be submerged during a “design storm” or a larger wet weather event, were found. Besides the perforated covers, several manholes were found to be in poor condition structurally and leaking. The Huron-Camden and Northwest areas have been identified as problems areas with regards to I/I, based on studies conducted in the past. Additional and more recent studies had flow meters strategically placed in the sanitary trunk line sewers around the City. These flow meters identified a significant flow increase to the sanitary system during rain events throughout the City. In the past, the use of dye testing procedures was used to identify cross-connections with some degree of success. However dye testing does not allow for a complete identification of all potential inflow sources; therefore, smoke testing of the system was the most economical and timely procedure to identify additional sources of inflow. The purpose of smoke testing was to identify potential sources of significant I/I through cross connections between sanitary and storm sewer collections systems. The smoke testing was performed as a team effort between City staff and ROWE.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Manhole rehab in floodplains Replace perforated covers and rehab/lining of manholes located within floodplains to reduce water inflow/infiltration (I/I).	1 – URGENT	\$1,200,000	\$1,200,000	\$0
Root control Root control within existing pipes to remove roots which might block waste flow, cost if for 20 years.	1 – URGENT	\$9,331,830	\$9,331,830	\$0
Pipe lining Lining of existing pipes to reduce water infiltration, cost if for 20 years.	1 – URGENT	\$15,000,000	\$15,000,000	\$0
Major valve repairs Repair major valves in system.	2 – IMPORTANT	\$200,000	\$200,000	\$0
Meter replacement	Added to Chapter 3			



8 CAPITAL IMPROVEMENT PLAN

ECONOMIC DEVELOPMENT & EDUCATION

Economic development and education will form the foundation of the future of Flint and there will need to be multi-sector alignment and substantial investments in people, places, and planning to achieve the City's economic development vision.

The City of Flint was built on the automotive industry. While the auto industry continues to play an important role in the economy, other sectors are evolving including life sciences, transportation, distribution/logistics, advanced manufacturing, and information technology. The emergence of these and other industries is needed to diversify the City's economy and create growth and new opportunities for employment.

In addition, the City must

also recognize that the 21st century economy is unpredictable and in constant flux. To stay competitive moving forward, the City must continually and proactively reassess its economic development strategies and targeted sectors of investment to meet changing market needs. To realize the economic development and education vision and goals of the Master Plan, the City must support and in specifically, concentrate and coordinate work force and economic development facilities in line with the Master Plan, strive to reuse Brownfield sites for productive purposes, and ensure that educational facilities and opportunities are well connected and reinforced by the City's capital improvements and infrastructure.

CIP Vision for Economic Development & Education

Imagine Flint as a dynamic college town, a center of innovation and entrepreneurship, a top destination for medical sector companies, an international hub for trade and transportation and a community where residents of all backgrounds share equally in Flint's economic rebirth. Imagine an entrepreneurial youth population, equipped for success through a robust education system and an extensive network of local businesses and institutions. Imagine a thriving small business scene, where aspiring businesses owners are empowered to open shops in neighborhoods across the City. Imagine transforming our current liability of vacant land into

new green spaces for economic growth, creating jobs for residents in alternative energy, local food production, or "green initiatives" fields.

CIP Overview

A sluggishly growing economy with a surplus of available workforce labor and inexpensive, vacant commercial space can be found throughout all areas of Flint. Reshaping the economy in Flint is a primary principle of the master plan and is addressed through a variety of new, unique place types that focus increased improvements and investment strategically within these areas.

Neighborhood Centers, City Corridors, Commerce & Employment Centers, Production Centers and the Innovation District should represent the focus of future economic

development initiatives and capital upgrades.

By emphasizing repairs and enhancements to these areas of perceived development, nodes of higher density and activity can develop creating enhanced options for workforce development, employment centers and future residential market demand. By reducing the importance on capital projects within current areas of commercial build slated for future areas of non-commercial, the City can focus its limited resources to invest in the future to achieve the goal of reshaping our economy.

Economic Development & Education Policy

The economic development and education policies are derived from the Master Plan and should shape all projects moving forward. These policies should provide a framework for evaluating the merits of any capital improvement project. For detailed discussion of each policy, please refer to the Master Plan section and the page referenced.

Re-Imagining community education.

This initiative, led by the Crim Fitness Foundation, is a community-wide system of support for students and families. Organizations are working together to establish schools as neighborhood hubs, helping to create stronger families, healthier neighborhoods,

higher performing schools and higher rates of student academic achievement and success. Every FCS elementary is covered under this program beginning the 2016-2017 school year.

Master Plan reference: Community Education, p. 205.

K-12 and college curriculum integration.

Social and educational partnerships should be developed between Flint’s public schools and local universities.

Master Plan reference: Integrating K-12 with Higher Education, p. 208.

Workforce development.

Adults, especially ex-offenders and those struggling with literacy should be provided with opportunities to gain additional education, skills, and training.

Master Plan reference: Adult Workforce Development, pp. 208-209.

Small business support.

Incentives, incubators, and assistance programs should be used to encourage small business development in the City Corridor and Neighborhood Center place types, especially in underserved areas experiencing significant levels of retail leakage.

Master Plan reference: Supporting Small Businesses, pp. 210-213.

Growth industries.

The City and its economic development partners should target retention and expansion efforts at the

following six industries, which were determined by the Flint Regional Cluster Project to offer the highest potential for growth: life sciences; transportation, distribution, and logistics; automotive and transportation equipment manufacturing; machinery manufacturing; information technology; and food manufacturing.

Master Plan reference: Flint Regional Cluster Project, p. 203.

Blue and green economy.

Leverage Green Innovation areas for the creation of new “green” and “blue” jobs.

Master Plan reference: Green Initiatives, p. 214; Blue Economy, p. 214.

Commercial demolition & revitalization.

A Commercial Areas Investment Framework, grounded in the Land Use Plan, should be developed that can create a targeted framework for demolition, public investment, and reuse of commercial properties.

Master Plan reference: Redeveloping & Repurposing Properties, p. 215-216.

Brownfields.

Capitalize on Flint’s existing infrastructure and well-connected transportation network to spur redevelopment of the Buick City and Delphi East brownfield sites, in alignment with the Land Use Plan.

Master Plan reference: Redeveloping & Repurposing Properties, pp. 215-216.

Innovation District.

The City should encourage increased physical, social, and transportation linkages between key employers and institutional anchors clustered around the center of the City, from McLaren Regional Medical Center in the west through Downtown to Delphi East in the east.

Master Plan reference: Innovation District, p. 221.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

Project Completed in

2016: 

Project Underway from

2016: 

New Project Added from

2016: 

Project Removed from

2016: 

ECONOMIC DEVELOPMENT & EDUCATION CAPITAL
IMPROVEMENT PLAN

Placemaking

Flint’s Innovation District encompasses the University Avenue and Court Street corridors, the Flint River, and Delphi East. This area includes the region’s largest employers, research institutions, and cultural assets such as: Kettering University, Mott Community College, University of Michigan-Flint, Genesys Downtown Flint Health Center, Hurley Medical Center, McLaren Regional Medical Center, Delphi East, and the Flint Cultural Center. Capital improvements within the Innovation District should be evaluated and prioritized to maximize benefits to the district’s anchor institutions and their users.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Innovation District Comprehensive Plan The Innovation district stretches from the McLaren Regional Medical center in the west, to Mott Community College in the east, and also contains Flint’s Downtown, Kettering University, and other civic and cultural assets.	2 – IMPORTANT	\$150,000	TBD	TBD
Wayfinding Signage – Innovation District Expand wayfinding program to roadways within the Innovation District, consistent with the design of the Downtown wayfinding program.	3 – DESIRABLE	TBD	TBD	TBD
Grand Traverse Greenway Trail Development & Acquisition 3-mile multi-use trail on the abandoned CSX Railroad to connect Downtown Flint, the Flint River, and surrounding neighborhoods to the southern part of the City.	2 – IMPORTANT	TBD	TBD	TBD
Oak Business Center Improvements Repair & upgrade suppression system.	1-URGENT Grant Funds Secured	\$40,700	\$40,700	\$0
Oak Business Center Roof Improvements Replace portion of roof.	1-URGENT	\$125,000	\$125,000	\$0
Oak Business Center Parking Lot Improvements Repaving of parking lot.	2-IMPORTANT	\$160,000	\$160,000	\$0
Oak Business Center Lighting Improvements Install perimeter LED lights.	2-IMPORTANT	\$18,458	\$18,458	\$0
Oak Business Center Improvements Repair & replace overhead doors in industrial units	3-DESIRABLE	\$38,165	\$38,165	\$0

Commercial Area Enhancement

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Commercial Structure Demolition Working from the Blight Elimination Framework, 432 blighted commercial structures have been identified as priority demolitions to enhance economic development within City commercial/retail nodes.	2 – IMPORTANT	\$21,600,000	TBD	TBD
Buick City Accelerator Buildings Study The Flint & Genesee Chamber of Commerce, Genesee Area Focus Fund and the City of Flint, received an Economic Adjustment Assistance grant to conduct a feasibility study for a business accelerator at the former Buick City site, Flint’s largest brownfield.	1-URGENT GRANT FUNDED	\$197,416	\$0	\$197,416

ECONOMIC DEVELOPMENT & EDUCATION CAPITAL
IMPROVEMENT PLAN

Information Technology Upgrade

Information Technology Services for the City of Flint is responsible for planning and upgrading the information technology systems that allow the city to remain responsive and efficient when providing services to residents. A goal of the City is to develop free wireless internet accessibility in key community areas.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
<p>Consolidation and Construction of City owned Fiber Optic Network The construction and upgrade of Fiber optic communication lines that connect City offices in a Metropolitan Area Network (MAN) can strategically be done with Collaboration and consolidation partners such as the GISD and local universities can connect networks. The benefits are lower operating costs and more control and flexibility. Investment lasts 12 Years.</p>	2 – IMPORTANT	\$240,000	\$240,000	\$0
<p>Mesh Wireless Internet Accessibility for Residents A community run wireless network could be created with Mesh technology. Currently this technology is being piloted in Detroit and can be applied to Flint.</p>	3 – DESIRABLE	\$900,000	TBD	TBD



9 CAPITAL IMPROVEMENT PLAN

PUBLIC SAFETY, HEALTH & WELFARE

Crime affects not only the everyday quality of life for Flint’s residents, but also the City’s regional and national perception. Moving forward, increasing the safety of residents will be dependent upon providing adequate resources to our at-risk youth; finding innovative new strategies, technologies, and partnerships to prevent crime; and sustaining effective, proactive, and responsive police and fire departments. The transportation systems that this CIP works to improve and inspire are important not for their own sake but for the public safety, health, and welfare that they work to advance. Healthy transportation choices will rely on investment in sidewalks, bike paths, and supporting systems that provide full

accessibility to all residents, regardless of age or level of mobility.

Social service providers and community organizations must reinforce agencies and institutions that provide health care and education. Through this holistic and collaborative approach, the Flint community will be empowered to instill positive change that leads to a healthier population and a higher quality of life.

CIP Vision for Public Safety, Health & Welfare

Imagine Flint as one of the safest cities in the country, with a proactive and technologically-savvy police force trusted by residents. Imagine Flint as a regional hub for fresh and locally grown produce, where a

thriving movement of entrepreneurial growers transform vacant lots into gardens and provide healthy food to schools, farmers markets, restaurants, and stores across the City. Imagine all of Flint’s youth growing up in stable neighborhoods that are clean, safe, and welcoming, patrolled by police officers known to residents and home to community centers providing around-the-clock activities and services for youth.

CIP Overview

The City faces a constant battle against high levels of crime. Strapped with debilitating staffing levels, public safety operations must be at the forefront of efficiency to ensure adequate service support for the Flint community. Old and dysfunctional facilities must be prioritized first and receive significant improvements and upgrades in order to meet the growing need and demand for smart, data driven policing and fire safety procedures.

Key Partners

The City only has five community centers: Haskell, Berston, Hasselbring, Brennan, and McKinley. Two of these centers are so well utilized that they have already exceeded their capacity, demonstrating a clear need for community centers in the City, especially for youth.

Public Safety, Health & Welfare Policy

The public safety, health, and welfare policies are derived from the Master Plan and should shape all projects moving forward. These policies should provide a framework for evaluating the merits of any capital improvement project. For detailed discussion of each policy, please refer to the Master Plan section and the page referenced.

Facility maintenance and location.

To ensure the long-term viability of the City’s public safety facilities, the City should conduct ongoing maintenance, employ new technologies, increase energy efficiency, and identify consolidation opportunities. The location of Neighborhood Service Centers should be aligned with the Land Use Plan.

Master Plan reference: State-Of-The-Art Police & Fire Departments, pp. 238-239; Government Facilities, p. 178.

Police and Fire Department staffing.

New revenue streams and strategies should be identified that can help sustain adequate personnel levels, including grants, interdepartmental collaboration, and possible creation of an auxiliary or reserve force.

Master Plan reference: State-Of-The-Art Police & Fire Departments, pp. 238-239.

Crime Prevention through Environmental Design (CPTED).

Environmental contributions to crime should be eliminated through strategies such as territoriality, natural access control, informal surveillance, regular maintenance, and code enforcement.

Master Plan reference: Crime Prevention through Environmental Design, p. 242.

Community policing and holistic partnerships.

The City and law enforcement entities should take a holistic approach to public safety through partnerships with community organizations, social service providers, educators, and health providers that can built trust with residents and offer alternative paths to at-risk youth and ex-offenders. The development of “wrap-around community centers” was identified by residents

as one of the most important steps towards achieving this end.

Master Plan reference: Community Partnerships, p. 242-244.

Healthcare access.

While the City’s role in healthcare is very limited, it should actively support policies, practices, and funding opportunities that increase awareness of existing services, expand services, increase accessibility of facilities, and reduce citizen dependence on drugs, alcohol, and smoking.

Master Plan reference: Community Partnerships, p. 242-244.

Byrne Criminal Justice Grant

In partnership with Hamilton Community Health, the City will be applying for a north-end Byrne Grant to develop strategies to deter crime around identified “hot-spots”.

North Flint Crime Grant

The Flint Police Foundation has been awarded a \$1 million grant from the Ruth Mott Foundation to implement its North End Community Crime Strategy (NECCS). The strategy targets changes in community infrastructure, culture and physical environment in order to reduce crime.

Physical activity & exercise.

Changes in policies, programs, and the built environment (e.g. walkability and bikeability) should play a proactive role in reversing poor health trends and increasing healthy lifestyles.

Master Plan reference: Physical Activity & Exercise, pp. 252-253.

2016 CIP Progress

It is important to note the significant amount of effort and progress that has been either initiated or completed over the course of the previous CIP year. Given that 2016 represented only the second combined CIP in the City’s history, the 2017 CIP update will highlight a handful of the significant projects that were addressed from the previous year, and also update on a broad basis, the total progress that has been achieved by the City, within each chapter. To make the document easier to read and follow, a color-coded system has been devised to help the reader track the progress and understand the document:

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PUBLIC SAFETY, HEALTH & WELFARE
CAPITAL IMPROVEMENT PLAN

Police Department

The facilities of the FPD include Police Headquarters, located on the City Hall Complex site, along with several service centers. The headquarters facility has a number of issues associated with it. Constructed at the same time as City Hall (1956), the 62,400 square foot building suffers from many of the same problems and inefficiencies. Many building components are outdated and in need of maintenance or replacement. The building is extremely energy inefficient. The list of necessary capital improvements for FPD facilities is only a portion of what is likely needed, and there are serious questions as to the long-term viability of at least some of the buildings considering their age, condition, and cost of corrections needed. The City should consider including in a study of options for right-sizing their facilities to meet projected staffing needs the needs of the Police Department, especially the headquarters.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Flint City Lock-Up Door Replacements Replace doors in temporary lock-up facility located on the 3rd floor of Police Station. Doors currently do not operate or close as they should.	1 – URGENT	\$50,000	\$50,000	\$0
Police Station roof repairs Repairs to the roof to prevent & correct leaks.	1 – URGENT	\$100,000	\$100,000	\$0
Police Station electrical upgrades Improvements to the electrical system.	1 – URGENT	\$200,000	\$200,000	\$0
Police Station- General Improvements New paint and replacement of kickplate trim throughout entire building. Replacement of windows and fix the flooding issues on east end of building. Improvements include new carpet, painting of stairwells and walls, new furniture and interior LED lighting upgrades.	1-URGENT	\$800,000.00	\$517,000.00	\$0
Police Station- Patrol Operations Upgrades Upgrades include removing old wiring, flooring, ceiling tiles and replacing with new wiring, new paint and new carpet.	1-URGENT	\$68,900	\$68,900	\$0
Police Station- Women's Locker Room Replace broken toilet in handicapped stall.	1- URGENT	\$500	\$500	\$0
Police Station HVAC Improvements to the heating and cooling system at Police Station.	2 – IMPORTANT	\$1,685,000	\$1,685,000	\$0
Police Station remodeling Remodeling of interior space.	2 – IMPORTANT	\$250,000	\$250,000	\$0
Police Station- Juvenile Offices Repairs and upgrades to the offices include flooring, bathrooms and holding cells.	2- IMPORTANT	\$30,000	\$30,000	\$0
Police Station Lighting Installation of new, motion sensor lights.	2-IMPORTANT	\$100,000	\$100,000	\$0
Police Station- Front Desk Workspace overhaul and remodel.	2- IMPORTANT	\$20,000	\$20,000	\$0

Police Station- Traffic Bureau Replace carpet and new paint.	2- IMPORTANT	\$8,500	\$8,500	\$0
Police Station- Crime Stoppers Office Replace carpet that was flooded and now smells moldy.	2- IMPORTANT	\$5,000	\$5,000	\$0
Police Station – City Lock Up Substantial upgrades and rehabilitation to the BLOCK's, Female holding area and the Booking Room.	2- IMPORTANT	\$35,000	\$35,000	\$0
Police Station -Property Room Fencing and shelving for property, move blood drying cabinets to MPO and construct venting system, create electrical supply and connect water supply to Blood Drying Cabinets. Electronic door entry readers, Dehumidifiers, Air purifiers, Labor to move Drying cabinets, sprinkler Fire Suppression System, Security Cameras and paint.	1 – URGENT/PARTIALLY COMPLETE	\$209,450	\$209,450	\$0
Far East Parking Lot Upgrades Upgrades needed at FPD far east parking lot due to theft and vandalism. Upgrades include LED lighting, cameras and an entry gate.	2- IMPORTANT	\$10,000	\$10,000	\$0
Radio Checkout Room Replacement doors are needed.	2- IMPORTANT	\$5,000	\$5,000	\$0
Police Shooting Range Construct new range.	1-URGENT	\$250,000	\$250,000	\$0
Repairs to Weight Room Floor in weight/training room is buckling. Repairs required for it to be functional.	1-URGENT	\$10,000	\$10,000	\$0
Detective Bureau Upgrades Improvements to the Detective Bureau are needed. They include new chairs, carpet, paint, desks and LED lighting.	2-IMPORTANT	\$30,000	\$30,000	\$0
Police Station bridge to 5th Street Improvements to the public access from 5 th street. Includes improvements for emergency exit from facility by employees.	COMPLETED			
Police Station- Control Center (formally TRU) New wire room for feeds, installation of new video monitors and replacement of ceiling tiles and new paint.	REMOVED			
Police Station HVAC Improvements to the heating and cooling system at Police Station.	REMOVED/DUPLICATE PROEJCT			

PUBLIC SAFETY, HEALTH & WELFARE
CAPITAL IMPROVEMENT PLAN

Fire Department

The Fire Department includes five (5) stations (with old Station 4 and Station 7 being closed) which are in various conditions. All have needs for upgrades or other improvements. There is no comprehensive facility assessment known and this should be considered. It is very likely that these facilities have many of the same issues as others of the City, with the added concerns of FFD staff being on duty 24 hours, 365 days a year.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Fire Station 2 Roof Repairs to the roof at Fire Station 2.	1 – URGENT	\$15,000	\$15,000	\$0
Fire Station 1 Kitchen Kitchen remodel at the main Fire Station.	2 – IMPORTANT	\$60,000	\$60,000	\$0
Fire Station 5 Miscellaneous Items Updates and maintenance to miscellaneous items at Fire Station 5, including security upgrades, bay door, refrigerator, etc. Large sink hole on rear garage entrance.	2 – IMPORTANT	\$90,000	\$90,000	\$0
Fire Station 8 Miscellaneous Items Updates and maintenance to miscellaneous items at Fire Station 8, including tiles, plumbing, Nederman unit, HVAC unit, etc. Large sink hole on rear garage entrance.	2 – IMPORTANT	\$95,000	\$95,000	\$0
Fire Station 6 Miscellaneous Items Updates and maintenance to miscellaneous items at Fire Station 6, including minor roof repairs, HVAC unit, tiles, lighting, painting, etc.	2 – IMPORTANT	\$96,500	\$96,500	\$0
Fire Station 1 Miscellaneous Items Updates and maintenance to miscellaneous items at Fire Station 1, including a new HVAC unit, carpeting, ceiling tiles, painting, etc.	2 – IMPORTANT	\$145,000	\$145,000	\$0
Fire Station 3 Miscellaneous Items Updates and maintenance to miscellaneous items at Fire Station 3, including a new AC unit, minor roof repairs, parking lot gate, bay door, etc.	2 – IMPORTANT	\$150,000	\$150,000	\$0
Fire Station 1 HVAC Improvements to the heating and cooling system at Fire Station 1.	2 – IMPORTANT	\$845,000	\$845,000	\$0
Fire Station 1 Nederman Nederman needs repair.	1-URGENT	TBD	TBD	TBD
Atherton Road Station Roof Repair Repairs to the roof at the Atherton Road Fire Station.	REMOVED			
Fire Station 4 Miscellaneous Items Updates and maintenance to miscellaneous items at Fire Station 4, including various systems and furnishings.	REMOVED			

Community Well-Being

The City currently has two senior centers (Brennan and Hasselbring), two youth centers (Berston and Haskell), and the McKinley Center (run by VISTA Drop-In Center). All are well utilized, with programming at all of the centers if provided by various non-profit partners. Some are utilized to the point that they physically cannot accommodate more users without capital investments, an indication of the need for more centers and partners to help with programming. Utilization of senior and community centers can be a key component in implementation of the Master Plan and many of the different place types, which can include adaptive reuse of FCS facilities. There is an immediate need for improvements at the two senior centers and it is likely that improvements are needed at the others. Identifying funding for necessary projects needs to be a priority, along with project partners.

Project Name	Priority	Total Cost	City Cost Share	Non-City Funds
Facility Needs Assessment Undertake a study to identify improvements needed at the various community centers (Berston, Brennan, Haskell, Hasselbring, and McKinley) and identify long term goals for providing services at each center.	1 – URGENT	TBD	TBD	TBD
LED Lighting Conversion Convert existing lights at city-owned community centers (including Berston, Haskell, Pierce, McKinley, Mott Park, Brennan, and Hasselbring) to high-efficiency LED fixtures to reduce long-term utility costs. Total cost represents a rough estimate based on the cost of conversion for gym lighting at Berston Field House.	3- DESIRABLE	\$210,000	\$210,000	\$0
McKinley Community Center Fire Restoration In 2016, an accidental fire destroyed the observation deck attached the McKinley Community Center that overlooked Thread Lake. The exterior and interior of the community center were severely damaged leaving the building inoperable.	1- URGENT	\$125,000	\$0	\$125,000
Berston Field House Energy Efficiency Implement the Berston Field House energy efficiency plan created by Consumers Energy completed on December 5, 2016. Plan identifies \$375,755 worth of upgrades that will provide for \$11,838 in energy savings a year.	2- IMPORTANT	\$375,000	\$0	\$0
Haskell Community Center Energy Efficiency Implement the Berston Field House energy efficiency plan created by Consumers Energy completed on December 5, 2016. Plan identifies \$10,570 worth of upgrades that will provide for \$2,903 in energy savings a year.	2- IMPORTANT	\$375,000	\$0	\$0

<p>Pierce Community Center HVAC Replacement of air conditioning units at Pierce Community Center.</p>	<p>REMOVED</p>			
<p>Fire Sprinkler System at Berston Field House Fire sprinkler system installation at Berston Field House. Cost estimate by Sedgewick & Ferweda Architects in on-site survey and analysis report (May 19, 2014).</p>	<p>REMOVED</p>			



10 CAPITAL IMPROVEMENT PLAN

MOVING FORWARD

NEXT STEPS

The City of Flint is gathering significant momentum towards a rebirth.

Implementation of the Master Plan will require significant capital investments. The projects listed in this CIP are but a fraction of what is needed for the City to once again attain its previous status.

The next steps required for the growth and development of Flint over the next 20 years include:

- Use of the Master Plan to guide City policies and decision-making;
- Review and update of the Zoning Ordinance, which is currently underway, and other development control to reflect policies presented in the Master Plan;
- Use of this CIP to plan for recommended infrastructure improvements;
- Promote cooperation and participation among various agencies, organizations, community groups, and individuals;
- Prepare and implement a 5-year Strategic Plan to prioritize objectives and list accomplishments of preceding years;
- Explore possible funding sources and implementation techniques for projects;
- Enhance public communication and community engagement in decision making; and,
- Update the CIP, Strategic Plan, and Master Plan at regular intervals.

ADOPTING AN ANNUAL CIP PROCESS

The CIP is a distinct element of the annual budget process that flows through City government in separate, but linked channels. The CIP process typically occurs earlier than the budget process, as the CIP will be used in developing the capital projects portion of the annual budget. The process for developing the CIP generally involves the following steps.

Step 1: Organize the Process

Since the City has not had a formal process for collaborating on development of a CIP, the first step should be to develop and organize a process for doing so. Staff members whose work duties, responsibilities, and/or expertise are impacted by or affect capital improvement projects should be identified as members of the CIP Team. These meetings should occur on a regular basis throughout the year and not wait until immediately prior to the budget process, as the CIP process will take on less meaning if it is merged in any way with the budget. The CIP draft should be completed well prior to beginning the budget process, with adjustments to the CIP made as needed based on budget discussions.

Step 2: Identify Needs

Each member of the CIP Team identifies the needs within or affected by its particular asset area. Team members should develop their CIP “wish list” of needs for facilities they are responsible for throughout the year and bring this list to the first CIP Team meeting. These needs can be identified by reviewing the findings of the City’s various master plans, maintenance records and experiences of staff, and citizen requests submitted since the last CIP process.

Step 3: Identify Key Scope Items

Next, each member of the CIP Team identifies key scope items that are likely to influence the cost and/or schedule requirements of the project to address the needs. These items may include: impacts to natural features; changes to the character of an area; locations within established boundaries such as historic districts, DDA, Master Plan place types, etc.; impacts on other utility infrastructure systems or their operations; special assessment or other outside funding component; need to obtain right-of-way or easement area; or, require a public engagement process.

There are tools that can be utilized in this process. One is the utilization of the City's geographic information system (GIS), which should contain an inventory and status or condition of many of the key items listed above. By identifying the location of a particular need, the presence or absence of many key items can be determined. Another tool, though not as technical as the GIS, is the broad perspective of the CIP Team members. By leveraging the expertise of the various staff involved with, or affected by, the operations and improvement of a particular asset area, many critical scope items can be factored into the planning and programming of a project to address a particular need.

If these scope items are not taken into account as part of the CIP process, the implementation of many projects is likely to encounter delays and cost over- runs as these items are discovered during the actual project study and design activities.

Step 4: Prioritize Needs

The key task for the CIP Team is to evaluate and prioritize the many identified needs. This is a critical component of the CIP process. Project selection and scheduling is constrained by the amount of funding anticipated to be available for capital projects. Shrinking funds and rising costs incurred in maintaining and rehabilitating deteriorating infrastructure make the process of selecting the most vital capital projects even more crucial and difficult. The merits of each need must be judged against the policies and criteria of the CIP process and the goals of each component of the Master Plan, as well as against the other competing needs.

Collaborative Classification Process

This CIP utilizes the collaborative classification method to prioritize projects. This method considers the varied perspectives on a given project to arrive at a prioritization relative to the other needs within that project category.

Prioritization or Weighting Model

Some communities utilize a detailed, yet clear method of prioritizing projects. The City of Flint should consider use of a prioritization or weighting model, which employs the following procedure:

1. Determine the decision criteria to be used in the prioritization analysis
2. Assign relative weights to the criteria from 0 to 100, with 100 being the most important criteria and the others weighted relative to the most important
3. Determine performance measures from 0 to 10 for each criterion
4. Score each need/project for each criterion

5. Run the model

The results of the prioritization model express the overall, relative benefit of each need/project compared to the others in that particular category. These results are reviewed to confirm that the criteria, weighting, and scoring have not produced improper results. If it is determined by the team that some aspects of the results are inappropriate, the criteria, weighting, and/or scoring should be reviewed and adjusted and the model rerun. The purpose of this iterative process is to better calibrate the model, but care must be taken to not adjust the model to produce "desired" results.

Note that while priorities for projects are included in the project listings, it is incumbent on the City to determine the final priority for projects between departments once department heads have prioritized projects within their own area of responsibility. Regardless of the method employed (prioritization model, collaborative process, or other means), this step is to be conducted without consideration of project cost or availability of funding or staffing resources. The goal of this step is to assign a priority to each project to allow for subsequent steps to be completed.

Step 5: Schedule Projects

The CIP Team members should develop an initial proposed schedule for the projects based on their understanding of the need and its relative priority within its asset category. Unlike a budget, a CIP is not required to be fiscally constrained based on available dollars, but it should have some semblance of reality to be effective and serve its intended purpose of providing guidance to future budget cycles.

The projects should initially be grouped by the fiscal year in which funding is proposed. The CIP Team should then evaluate each fiscal year grouping and adjust project schedules until an overall schedule of projects is established wherein:

Higher priority needs are addressed before lower priority needs.

Step 6: Prepare, Adopt & Approve

As the process continues, and increasingly detailed information emerges, projects may be added, altered, or abandoned. Eventually, the CIP Team arrives at a final list of projects that is submitted to the City Planning Commission for review.

The Planning Commission evaluates the CIP package in light of additional information, holds a public hearing, and makes final programming decisions before adopting the CIP and sending it on to City Council. Council approves the CIP after its review. Approval is not a commitment to finance the approved projects, but is a statement of policy regarding the City’s approach to meeting its future capital needs. However, the first two years of the CIP do form the initial basis for the Capital Projects Budget portion of the City’s Annual Budget.

Policy Assessment

The City Council ultimately approves the assumptions, criteria, policies, and recommendations of the CIP Team and City Planning Commission by approving the CIP. Depending on the policy orientation, modifications are expected throughout the process. This is considered an essential part of the procedure, placing the burden on those who dissent to assess the policies underlying the recommendations and to advocate their differences, resulting in the necessary evolution of the entire capital planning process.

Highlight Priority Needs Regardless of Funding

It is inevitable that the number of projects required to address all of the City’s infrastructure needs will exceed the available funding. In the endeavor to provide better service to the community, capital projects are proposed at times which, unfortunately, are moved to a later date when funding is available, or are determined to be unfunded or unprogrammed. This process should not discourage staff from continuing to submit identified needs, but should develop into a mechanism to help in the effort to uncover alternate sources of funding and see that higher-priority projects get implemented.

APPENDIX

The attached Appendix includes the CIP spreadsheet that provides more detailed information about budget cycles, funding sources, and project costs for projects listed in this CIP. Several projects do not have a detailed scope or cost determined and there are numerous additional studies and investigations needed for the City to document existing conditions and fully understand infrastructure and capital improvement needs. Additional discussion on “Moving Forward” can be found in Chapter 12 of the Master Plan.