

CITY OF KEENE

2021-2027

Capital Improvement Program

Everything
You Need is
Here



City of Keene, New Hampshire

Capital Improvement Program

FY 2021-2027

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City of Keene

New Hampshire

February 6, 2020

The Honorable Mayor Hansel and members of the Keene City Council:

We are pleased to present this year's proposed Capital Improvement Plan (CIP) spanning the next seven years, through June 30, 2027, including the proposed budget for FY 2021 and FY 2022 capital projects. City staff and the City Council work very hard to produce Capital and Operating Budgets that meet and balance citizen and community needs and City Council Fiscal Policy. The Capital Improvement Program identifies and funds community capital needs identified by citizens, the City Council, and staff recognizing that resources are limited and priorities need to be established.

The proposed capital investment program is consistent with goals and priorities identified within the Comprehensive Master Plan (CMP) adopted in 2010 and Council Goals, including an emphasis on economic development. A critical element to achieve the City's vision is the development, maintenance, and replacement of the infrastructure and amenities promoting health, wellbeing, and vitality of the community. #BuildingBetterTogether

Budgeting and planning processes are never ending and at the micro level, there are many details. City staff, when developing the program advanced, has analyzed individual projects and financial details, which need to be connected to support a comprehensive improvement plan. At the macro level, budgeting is less detail-oriented and complex, but no less challenging. The community establishes goals and priorities through its elected officials (the City Council and Mayor), documents such as the CMP and City Council Goals and Policies, and through communications with the City Manager and City staff.

It is the job of City staff to implement the goals and priorities of the community, and also to identify and communicate additional opportunities and challenges to our elected officials and community. Oftentimes priorities can be in conflict. One set of priorities may reflect the desire to control government spending in order to limit property tax or utility rate increases. Another set of priorities may reflect a desire to fund ongoing preservation and maintenance of critical transportation and water/sewer infrastructure or to invest in other community infrastructure, programs, or amenities.

Budgeting and planning processes are used to identify priorities, explore alternative means or approaches to accomplish goals and priorities and most of all to prioritize and balance conflicting community goals and priorities to as great an extent as possible. In a time of limited resources and increasing competitiveness and demand for public investment in our community, the need to balance conflicting priorities and needs is paramount. Budgeting and planning processes are also used to communicate, share, and solicit feedback from the community with regard to the implementation of community priorities as expressed through proposed budgets.

In recent years, the priorities articulated by the public, the City Council, and Comprehensive Master Plan clearly show an emphasis on the city road and bridge systems, flood control, support for public safety services and a number of other initiatives (e.g. library, parks facilities). During upcoming CIP cycles and annual operating budget presentations, City staff will continue the effort that supports the community's vision.

City staff has been careful to see that all newly identified projects deemed important to the realization of the goals and objectives of the City of Keene are incorporated into this plan that guides our community's future. Such projects are included within the seven-year planning horizon or highlighted in the narrative portion of this message under FUTURE INITIATIVES.

The proposed CIP is modest when viewed in the context of the actual use of property tax dollars and has been crafted with the Operating Budget in mind. With a reliance on grants, capital campaigns, and other revenue sources to offset city property taxes, much has been accomplished. These next few years with continued collaboration, and adherence to frugality, will provide opportunities for new projects and priorities to be advanced. Whether it is continuing the community conversation with regards to the future of the downtown core, improvements to utility and stormwater systems, sidewalks and roads, airport infrastructure, or city parks; this year's CIP with continuing collaboration includes them all.

Keene must remain competitive if we are going to continue to attract investment, jobs, and resultant increases to our tax base. Quality of life is a vital part of keeping the City competitive. The right balance between investment and affordability will ensure the City remains an attractive place to live, learn, work, and play. #liveworkplaykeene

CAPITAL IMPROVEMENT PLAN

The focus of the CIP process is planning for our City's future. The guiding principle of this planning effort is to advance the vision of the Comprehensive Master Plan (CMP) including;

- ❖ A quality built environment,
- ❖ Unique natural environment,
- ❖ A vibrant economy,
- ❖ Strong citizenship and proactive leadership,
- ❖ A creative and learning culture, and
- ❖ A healthy community.

Guided by fiscal policy, the CMP input from the community and actions of the City Council, each year anticipated capital expenditures are identified in a seven-year Capital Improvement Program (CIP). The CIP includes projects with an estimated cost in excess of \$35,000 and anticipated useful life of at least five years. Individual project requests are consolidated into a capital program that includes revenue and operating cost projections providing estimated property tax and rate impacts. The capital planning process provides a framework to consider projects, over the time frame of the CIP, in the context of the community's vision, values, and goals, along with the impact on property taxes, utility and other user rates.

Following review by the City Council and Planning Board and a public hearing, the adopted program's first year is included in the next operating budget proposal (FY 2021) as the capital budget. The second year of the CIP will be reviewed during the subsequent operating budget cycle and will then be included in the FY 2022 annual budget document as the capital budget.

This CIP includes capital expenditures planned for the seven-year period starting July 1, 2020, and ending June 30, 2027 (FY 2021 - FY 2027). This program is fluid and will change from CIP to CIP, and can also be amended from time to time by action of the City Council. While the vast majority of capital activity advances through the CIP process, the CIP document is a planning tool. Occasionally projects are presented to and approved by the City Council outside of the formal CIP process, particularly when grant funding or community partnership becomes available. As a planning document, it also does not bind any public body to undertake any project but serves the City Council as a tool to identify and schedule needed improvements and to forecast and plan for the impact of those improvements.

The CIP reflects the continuation of the philosophy of seeking opportunity for strategic investments that leverage other resources and partnerships to advance the goals of the CMP as reflected in the recent ice rink, Library Campus Development, proposed skateboard park project and proposed Arts and Culture Corridor. Through engagement with employers, the Chamber of Commerce, College/City Commission, social service agencies, other governmental partners and community groups, our organization, community, and City Council priorities advance.

FISCAL POLICY IMPACT

In the fall of 2019, the City Council participated in a Fiscal Policies Workshop designed to review and update the City’s fiscal practices. Subsequently, the Council adopted revised Fiscal Policies that provided greater budgetary flexibility and removed the incentive to use bonded debt when funding capital outlay with current resources and alternative financing sources. In addition, debt policy parameters were modified, the capital threshold was increased to \$35,000, and a biannual, seven-year long-range CIP planning was adopted.

- A. **Unassigned Fund Balance** - General Fund unassigned fund balance will be maintained at between seven (7%) and ten (10%) percent of the sum of the total of the General Fund annual operating budget and the property tax commitment for the school (both local and state) and the county.

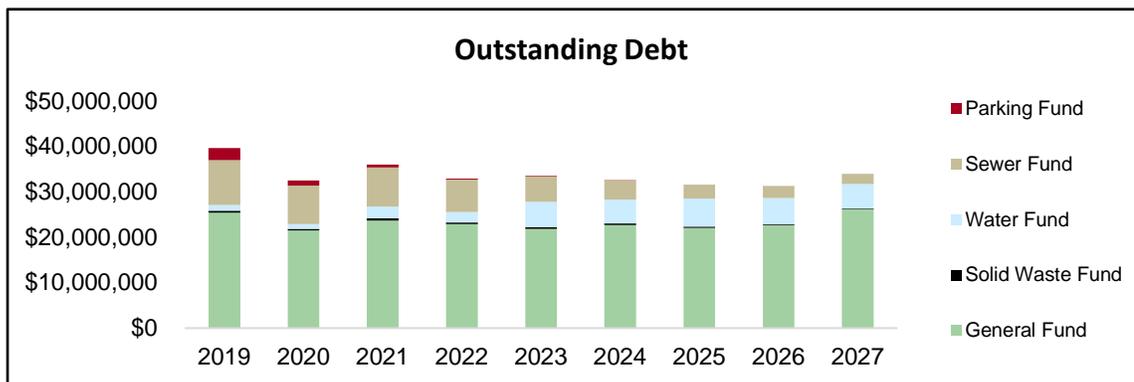
2021	2022	2023	2024	2025	2026	2027
8.37%	7.79%	7.92%	7.50%	7.95%	8.54%	9.09%

- B. **Debt** - The City of Keene will contain its General Fund debt service, on a five (5) year average, at or less than twelve (12%) of the General Fund operating budget.

The proposed Capital Improvement Program is within the 12% cap established in the new fiscal policy.

2021	2022	2023	2024	2025	2026	2027
10.28%	10.32%	9.73%	8.85%	8.95%	9.04%	9.02%

Over the course of this CIP total outstanding debt for all funds decreases \$5.7 million. Below is a summary of the total outstanding debt by Fund, for each year presented in this book:



	2019	2020	2021	2022	2023	2024	2025	2026	2027
Parking	\$2,665,000	\$1,105,000	\$665,000	\$225,000	\$150,000	\$75,000	\$0	\$0	\$0
Sewer	9,905,256	8,485,623	8,592,400	7,090,311	5,598,722	4,221,632	3,097,486	2,630,132	2,255,039
Water	1,273,568	1,084,986	2,620,788	2,340,579	5,598,300	5,273,133	6,180,967	5,794,150	5,407,333
SW	400,500	342,000	451,500	381,800	335,600	289,400	243,200	197,000	150,800
General	25,449,828	21,489,083	23,712,928	22,884,330	21,890,649	22,738,552	22,079,293	22,701,577	26,176,667
	\$39,694,152	\$32,506,692	\$36,042,616	\$32,922,020	\$33,573,271	\$32,597,717	\$31,600,946	\$31,322,859	\$33,989,840

FUTURE INITIATIVES

In 2019, the City hired Weston & Sampson to complete a feasibility study of the pools in Wheelock Park and Robin Hood Park. Wheelock pool is structurally sound, but needs continued maintenance and improvements to continue its useful life. Several deficiencies exist in the Robin Hood pool, including the structural integrity of the pool itself, which will require investment in a new aquatic facility. A new structure has been included in the final year of the plan at a total cost of just over 3.7 million dollars. However, a funding source will need to be further defined in the future. As of right now, this project has been added to the plan as a new debt-funded project partially offset with future fundraising.

Parks and Recreation has kicked off the design work for the Patricia T. Russell Park. FY 2020 included an appropriation for \$125,000 to complete the design. Construction funding is requested in FY 2022 in the amount of \$1,283,000. The Patricia T. Russell Park, adjacent to the downtown footprint along Beaver Brook and the Cheshire Rail Trail, plays a significant role in restoring recreational opportunities to the east side of Keene.

Funding for \$1,475,000 has been requested to renovate the Recreation Center in FY 2024. This project will renovate the multipurpose room, improve the lobby, replace the boilers and bring the public restrooms up to current ADA standards. The ability to heat the multipurpose room in the colder months is difficult at best, as the walls have no insulation and windows are in poor condition, and the flooring needs a proper installation. The City promotes green energy and conservation; the opportunity to provide a model for energy efficiencies and create a more sustainable facility can be addressed through this renovation.

The Transportation Heritage Trail is the next phase in the ongoing development of our existing Cheshire Rail Trail System. This section will begin at the terminus of the previously completed Industrial Heritage Trail (IHT). The central feature of this project will be the adaptive reuse of three historic bridges. To maximize our opportunity to seek funding from various grant programs and contributions from non-profit organizations, the project is proposed to be completed in several phases. In FY 2024, construction would begin with a trailhead off Swanzey Factory Road and safety railings on Stone Arch Bridge. The project phases are planned to continue through FY 2027 with an anticipated total cost of approximately \$2.6 million dollars. The project timeline will be contingent upon the availability of grant funds and private donations.

Over the past twelve months, a committee evaluated the location of Fire Station 2 at 110 Hasting Ave in West Keene, as it relates to EMS demand in the city. The transfer of ownership of the facility, from the State to the City, initiated a study of the current location along with consideration of the fire department's future service needs. Funds previously appropriated in the amount of \$20,000 will now be used to evaluate building and system needs. FY 2022 includes a request for an additional \$50,000 to complete the final design, architectural drawings. The final phase of this project will include the renovation and/or construction of a new facility, which will be dependent upon these initial actions and future CIPs.

The Downtown Revitalization project will kick off this year with funding allocated for preliminary design work to include discussion on treatments, activities, and functions needed for a vibrant Downtown. The City just recently learned that we were, again, unsuccessful in our attempts to get a \$750,000 Build America Planning Grant for proposed Downtown work. Aging and deficient underground infrastructure in the downtown core initiated this project which will disrupt the City's downtown streetscape developed almost thirty years ago. The proposed plan includes funding for final design and contract documents to be completed in FY 2021. Construction funding is planned through years FY 2022-2025.

The City's Salt Shed located at 560 Main Street will be 25 years old when scheduled to be replaced in FY 2022. The City sold ten acres of the property at 560 Main Street. This property is now being developed by Froling Energy. The sale included language to allow the City continued use of the salt shed through FY 2022 while a new one is being constructed at a new location.

The City has both sewer and water infrastructure on Gilbo Avenue that is in need of replacement. The CIP proposes replacement in FY 2021 so that work occurs ahead of any surface treatment improvements contemplated as part of the proposed Arts and Culture Corridor project. In addition, the cost to extend Wilson Street from its current terminus to Gilbo Avenue is included.

The Lower Winchester Street project will improve one of the many gateways into the City. This project extends from the Swanzey town line to the NH Rte. 101 roundabout. As part of the State's ten-year transportation plan, it is eligible for 80% funding from the state with a 20% match from the City. The Winchester Street Bridge over Ash Swamp brook will also be replaced as part of this project and is eligible for State Bridge Aid (80% State 20% City). Design work will begin in FY 2021 with construction in FY 2025 and FY 2026.

There have been discussions regarding the development of an Ashuelot River Greenspace Park expansion with major funding to come through private donations. Should that project come to pass, there may be the need to upgrade city drainage infrastructure crossing the property before the park is developed.

The concept of a Stormwater Management Utility has been raised as a discussion point. A stormwater utility would have the purpose of funding capital improvements related to the stormwater and storm runoff infrastructure system. The funding method would be user fees, in a manner similar to the existing water and sewer utility funds. The stormwater drainage infrastructure system (managed by the Department of Public Works) is currently funded with property taxes. A stormwater utility would be funded by all properties, including tax-exempt properties.

Appendix A and B of this document contain supplemental information on various projects including those discussed in this section, extending beyond the seven-year plan that is still in the preliminary planning or discussion stages.

FINANCIAL INFORMATION & PROJECT REQUESTS

Project requests are developed by City departments, after considering priorities identified in the Comprehensive Master Plan, council goals, department master plans, public demand for services or facilities, or by operational needs. Requests, in addition to articulating scope, justification, a financial plan, and schedule are aligned to a CMP focus area, strategy, and the values articulated by V.O.I.C.E., as follows:

- ❖ Value everyone
- ❖ Obtain public input
- ❖ Inform the public
- ❖ Continually assess facilities and infrastructure
- ❖ Establish priorities

When developing a project's funding plan, the funding proposed (current revenue, debt, etc.) by staff takes into consideration the capacity of the fund, timing relative to other projects within the fund, and the impact upon property taxes and user rates over a given time period.

Projects funded by long-term debt are repaid at a term that considers the anticipated useful life of that project.

In order to present a more “user-friendly” document, the CIP book has been re-organized by Fund (General, Parking, Solid Waste, Sewer, Water, and Equipment).

The CIP document contains the following sections:

1) CIP Message & Summary

This section provides an overview of the CIP process, future initiatives, impact on fiscal policies and financial information for all projects - in all funds - proposed in the FY 2021 – 2027 CIP.

- a) Letter of Introduction and City Manager’s Message.
- b) Financial Overview, including all Funds – a consolidated financial overview of all proposed projects and funding sources included in the proposed CIP.
- c) Consolidated New Debt Schedule – includes the proposed issuance of new debt (all Funds).
- d) Multi-Fund Infrastructure Projects – shows the total cost of major infrastructure projects that have outlays in multiple funds (i.e. general, water, and sewer).
- e) Other Project Funding Sources – details the amounts from appropriations or other sources of project financings, such as the sale of property, capital campaigns, and re-appropriation of project balances that have been determined to be available for future year’s work.

2) General Fund – used to account for those governmental activities that are not recorded on one of the other City Funds.

The General Fund project worksheets have been grouped into three (3) sections in order to emphasize specific subject areas: Community Services, Internal Support, and Infrastructure.

- a. Community Services – Community Development, Fire, Parks & Recreation, and Police Programs that are related to activities and services provided to the community for the benefit of the community. Fire and Police departments provide health, protection, and safety services while Parks and Recreation support health, wellness and open space and trails.
- b. Internal Support – Assessing, Facilities, Finance, and Information Technology Services that the City provides to support its own internal operations. Departments include assessing, finance, information technology, and facilities whose primary goal and focus are to maintain the City’s structures and operational assets in good working condition, in an environmentally friendly and economically efficient manner.
- c. Infrastructure – Airport and Public Works Programs and services that are intended to promote the retention and expansion of existing businesses, and to encourage new business development in the City of Keene. This group includes improvements to the transportation infrastructure (roads, bridges, sidewalks, and bike paths) intended to facilitate the safe and efficient movement within the City; and connect the local community with the Monadnock region, the state, and the world. Also included, are projects aimed at preventing and remediating conditions leading to localized flooding through preventive maintenance, drainage system improvements, and comprehensive stormwater infrastructure planning.

3) Parking Fund – Special Revenue Fund used to account for the operations, maintenance, and capital outlay needs of the municipal parking area.

4) Solid Waste Fund – Special Revenue Fund for accounting for the activities of the transfer station and recycling operations and for post-closure costs associated with the landfill.

5) Sewer Fund – Enterprise Fund used to account for the operations, maintenance, and capital outlay needs of the sewer collection and treatment systems.

- 6) Water Fund – Enterprise Fund for the accounting of the operations, maintenance, and capital outlay needs of the water treatment and distribution systems.
- 7) Equipment (Fleet) Fund – Internal Service Fund used to account for the operations, maintenance, and capital outlay needs of City vehicles and equipment.
- 8) Appendix
 - a) Appendix A – General Fund projects not included in the proposed FY 2021-2027 CIP which may appear in future CIP documents. These projects have not been included in the CIP for a variety of reasons, including limited resources and the need for additional project analysis and development.
 - b) Appendix B – Water and Sewer Funds capital projects that are scheduled for FY 2028 and beyond. Also included is a brief discussion of recommendations for additional water main replacement funding. Due to the nature of aging utility infrastructure, and the scope of the proposed projects, this information is provided in an effort to better inform the long-term discussion regarding utility fund infrastructure.
 - c) Index – alphabetical listing with page numbers

Each Fund section follows a consistent format and includes:

- 1) Table of Contents
- 2) Program Overview and Summary - fund basis financial information including detail on property tax, utility rate, and fee projections, et al.
- 3) Debt Summary - debt service schedule providing information on existing and proposed levels of debt service through FY 2027.
- 4) Capital Reserve(s) - financial summary for each active capital reserve providing a schedule of projects to be funded, proposed funding for each year of the CIP and a projected ending cash balance of the reserve.
- 5) Multi-Year Projections – financial projections
- 6) Project Request Worksheets

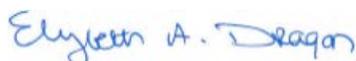
The remaining steps to be taken in the CIP process are:

- | | |
|-------------------------------|--|
| • Thursday, February 6, 2020 | City Council CIP Overview |
| • Saturday, February 8, 2020 | City Council and Planning Board CIP Presentation |
| • Monday, February 10, 2020 | FOP Committee review |
| • Thursday, February 13, 2020 | FOP Committee review |
| • Thursday, February 27, 2020 | FOP Committee review |
| • Thursday, March 5, 2020 | Public Hearing |
| • Thursday, March 12, 2020 | FOP Committee develops recommendation |
| • Thursday, March 19, 2020 | Council vote |

The Planning Board will conduct its independent review at its February 2020 meeting and will report the result of their review directly to the City Council.

Thank you for your careful consideration of this document and the various projects proposed to move toward a sustainable future for our community.

Respectfully Submitted,



Elizabeth A. Dragon
City Manager

FY 2021-2027 Proposed Capital Improvement Program Financial Overview By Year, Fund, and Funding Source

FY20/21	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 2,126,722	\$ 311,801	\$ 2,904,000	\$ 4,776,343	\$ 492,521	\$ 10,611,387	63.04%
Parking Fund	60,000					60,000	0.36%
Solid Waste Fund	70,000					70,000	0.42%
Sewer Fund	1,096,065	299,000	1,513,000		433,400	3,341,465	19.85%
Water Fund	957,300	330,470				1,287,770	7.65%
Equipment Fund	650,000	812,356				1,462,356	8.69%
TOTAL	\$ 4,960,087	\$ 1,753,627	\$ 4,417,000	\$ 4,776,343	\$ 925,921	\$ 16,832,978	
% of program	29.47%	10.42%	26.24%	28.37%	5.50%	100.00%	

FY21/22	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 1,862,060	\$ 2,803,966	\$ 2,949,000	\$ 307,797	\$ 144,081	\$ 8,066,904	59.76%
Parking Fund	111,300	107,900				219,200	1.62%
Solid Waste Fund	77,000	75,000				152,000	1.13%
Sewer Fund	1,325,535	418,682				1,744,217	12.92%
Water Fund	1,129,600	909,988				2,039,588	15.11%
Equipment Fund	650,000	627,576				1,277,576	9.46%
TOTAL	\$ 5,155,495	\$ 4,943,112	\$ 2,949,000	\$ 307,797	\$ 144,081	\$ 13,499,485	
% of program	38.19%	36.62%	21.85%	2.28%	1.07%	100.00%	

FY22/23	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 2,379,528	\$ 878,669	\$ 2,476,000	\$ 2,748,605	\$ 125,000	\$ 8,607,802	48.60%
Parking Fund	60,000	98,200				158,200	0.89%
Solid Waste Fund	75,000	242,000				317,000	1.79%
Sewer Fund	1,131,592	976,641				2,108,233	11.90%
Water Fund	1,164,500	480,490	3,464,000			5,108,990	28.84%
Equipment Fund	804,178	607,746				1,411,924	7.97%
TOTAL	\$ 5,614,798	\$ 3,283,746	\$ 5,940,000	\$ 2,748,605	\$ 125,000	\$ 17,712,149	
% of program	31.70%	18.54%	33.54%	15.52%	0.71%	100.00%	

FY23/24	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 2,417,424	\$ 898,727	\$ 3,958,000	\$ 1,189,958	\$ -	\$ 8,464,109	58.40%
Parking Fund	510,000	57,400				567,400	3.91%
Solid Waste Fund	80,000	50,000				130,000	0.90%
Sewer Fund	1,101,600	1,443,352				2,544,952	17.56%
Water Fund	929,800	651,931				1,581,731	10.91%
Equipment Fund	625,000	579,787				1,204,787	8.31%
TOTAL	\$ 5,663,824	\$ 3,681,197	\$ 3,958,000	\$ 1,189,958	\$ -	\$ 14,492,979	
% of program	39.08%	25.40%	27.31%	8.21%	0.00%	100.00%	

FY24/25	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 2,973,503	\$ 1,879,513	\$ 2,737,000	\$ 5,971,632	\$ 15,000	\$ 13,576,648	62.17%
Parking Fund	113,000					113,000	0.52%
Solid Waste Fund	80,000	145,000				225,000	1.03%
Sewer Fund	1,107,600	1,165,019				2,272,619	10.41%
Water Fund	1,254,200	1,338,755	1,233,000		300,000	4,125,955	18.89%
Equipment Fund	625,000	899,767				1,524,767	6.98%
TOTAL	\$ 6,153,303	\$ 5,428,054	\$ 3,970,000	\$ 5,971,632	\$ 315,000	\$ 21,837,989	
% of program	28.18%	24.86%	18.18%	27.35%	1.44%	100.00%	

FY25/26	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 2,888,015	\$ 253,256	\$ 3,953,000	\$ 3,449,025	\$ -	\$ 10,543,296	63.60%
Parking Fund	60,000					60,000	0.36%
Solid Waste Fund	75,000					75,000	0.45%
Sewer Fund	1,113,800	902,895				2,016,695	12.16%
Water Fund	1,421,000	1,187,246				2,608,246	15.73%
Equipment Fund	625,000	650,556				1,275,556	7.69%
TOTAL	\$ 6,182,815	\$ 2,993,953	\$ 3,953,000	\$ 3,449,025	\$ -	\$ 16,578,793	
% of program	37.29%	18.06%	23.84%	20.80%	0.00%	100.00%	

FY26/27	Current Revenues	Capital Reserves	Bonds	Grants	Other	Total	% of program
General Fund	\$ 2,218,373	\$ 322,797	\$ 6,752,000	\$ 9,188	\$ 250,000	\$ 9,552,358	62.50%
Parking Fund	60,000					60,000	0.39%
Solid Waste Fund	75,000					75,000	0.49%
Sewer Fund	1,125,200	1,655,400				2,780,600	18.19%
Water Fund	1,454,700	197,233				1,651,933	10.81%
Equipment Fund	625,000	537,969				1,162,969	7.61%
TOTAL	\$ 5,558,273	\$ 2,713,399	\$ 6,752,000	\$ 9,188	\$ 250,000	\$ 15,282,860	
% of program	36.37%	17.75%	44.18%	0.06%	1.64%	100.00%	

**FY 2021 - 2027 Capital Improvement Program
Proposed New Bond Schedule (All Funds)**

<u>Issue</u>	<u>Term</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>General Fund</u>								
Airport Fuel Tanks Remove/Replace	10	508,000						
Arts & Culture Corridor	10	770,000						
Beaver Brook Flood Mitigation	15			503,000			503,000	
Breathing Apparatus Replacement	7	755,000			755,000			
Flood Management	15	3,093,000	744,000	774,000			842,000	
Lower Winchester St. Reconstruction	15	1,479,000				970,000	509,000	
Municipal Building Roofs	15	454,000		454,000				
Patricia T. Russell Park	15	1,283,000	1,283,000					
Recreation Center Renovation	15	1,475,000			1,475,000			
Road Rehabilitation / Paving	10	9,079,000	893,000	1,248,000	1,728,000	1,264,000	1,512,000	1,512,000
Robin Hood Pool Improvements ⁽¹⁾	15	3,500,000						3,500,000
Transportation Heritage Trail	15	2,327,000					587,000	1,740,000
<u>General Fund Totals</u>		<u>25,729,000</u>	<u>2,904,000</u>	<u>2,476,000</u>	<u>3,958,000</u>	<u>2,737,000</u>	<u>3,953,000</u>	<u>6,752,000</u>
<u>Sewer Fund</u>								
Colony Court -Bloomer Swamp Main	15	1,513,000						
<u>Water Fund</u>								
3 MG Water Tank Replacement /Repair	20	2,227,000		2,227,000				
Distribution Improvements (Downtown)	15	1,237,000		1,237,000				
Well Field Upgrades	20	1,233,000				1,233,000		
<u>Proposed Bond Issues FY 2021-2027</u>		<u>\$31,939,000</u>	<u>\$4,417,000</u>	<u>\$5,940,000</u>	<u>\$3,958,000</u>	<u>\$3,970,000</u>	<u>\$3,953,000</u>	<u>\$6,752,000</u>

1) FY 2027 includes \$3,500,000 placeholder for Robin Hood Pool Improvements

2021 - 2027 MULTI-FUND/PROJECT INFRASTRUCTURE PROGRAMS
Projects Consolidated Across Funds and Programs

	2021	2022	2023	2024	2025	2026	2027	Total
<u>Arts & Culture Corridor</u>								
Stormwater & Road Infrastructure	770,000							770,000
Sewer Infrastructure	41,565	235,535						277,100
Water Infrastructure	36,300	205,700						242,000
Total Arts & Culture Corridor	847,865	441,235	-	-	-	-	-	1,289,100
<u>Downtown Revitalization</u>								
Downtown Revitalization	100,000	500,000	550,000	450,000	550,000			2,150,000
Flood Management (Drainage)			859,800					859,800
Sewer Main Improvements			351,834					351,834
Water Main Improvements		211,246	1,232,972					1,444,218
Total Downtown Revitalization	100,000	711,246	2,994,606	450,000	550,000	-	-	4,805,852
<u>State By-Pass Projects ⁽¹⁾</u>								
State Bypass Project	982,929	267,349	451,354		4,828,832	2,533,899		9,064,363
Sewer Bypass Infrastructure					337,500			337,500
Water Bypass Infrastructure					300,000			300,000
Total State Bypass Project	982,929	267,349	451,354	-	5,466,332	2,533,899	-	9,701,863
<u>Bridge Replacement ⁽²⁾⁽³⁾</u>								
Bridge Project		117,398	15,653	649,600		172,282	11,485	966,418
Water Main Improvements								-
Sewer Bridge Utilities								-
Water Bridge Utilities				69,700				69,700
Total Bridge Replacement	-	117,398	15,653	719,300	-	172,282	11,485	1,036,118
<u>Travel Surface Improvements</u>								
Road Rehabilitation	893,000	1,672,000	1,248,000	1,728,000	1,264,000	1,512,000	1,512,000	9,829,000
Curb Repair/Replacement	68,752	70,815	72,939	75,128	77,382	79,703	82,095	526,814
Sidewalk Repair/Replacement	68,752	70,815	72,939	75,128	77,381	79,702	82,094	526,811
Total Travel Surface Imp.	1,030,504	1,813,630	1,393,878	1,878,256	1,418,763	1,671,405	1,676,189	10,882,625

1) This project includes the replacement of the Winchester Street over Ash Swamp Brook bridge.

2) Funding in FY 2023 -2024 is for the George Street bridge over Beaver Brook.

3) Funding in FY 2026-2027 is for the Beaver Street bridge over Beaver Brook.

2021 - 2027 CIP "Other" Project Financing Detail by Year

FY 20-21

Department	Project Name	Fund	Source	\$
Airport	Taxiway A Reconstruction/Extension	General	Sale of Property - Airport	210,000
Airport	Fuel Tank Removal & Replacement	General	Project Balance Reappropriation 90060 - Airport Development	264
Airport	Fuel Tank Removal & Replacement	General	Project Balance Reappropriation 90103 - Airport Obstruction	1,569
Airport	Fuel Tank Removal & Replacement	General	Project Balance Reappropriation 90170 - Airport Pavement	8,337
Airport	Fuel Tank Removal & Replacement	General	Project Balance Reappropriation 90304 - Airport Terminal - Bond \$	24
Police	Portable Radios	General	Project Balance Reappropriation 90123 - 2020 Police Portable Radios	9,796
Public Works	Lower Winchester St. Reconstruct	General	Project Balance Reappropriation 90058 - Gateway Infrastructure	115,131
Public Works	Salt Shed Replacement	General	Sale of Property - 560 Main Street	105,000
Public Works	Stormwater Management System	General	Project Balance Reappropriation 90271 - Flood Control	42,400
Public Works	WWTP Generator Replacement	Sewer	Project Balance Reappropriation 08094 - Rose Lane - Bond \$	290,400
Public Works	WWTP Laboratory Renovation	Sewer	Project Balance Reappropriation 08030 - WWTP Phase 2	143,000
Total				925,921

FY 21-22

Department	Project Name	Fund	Source	\$
Public Works	Salt Shed Replacement	General	Sale of Property - 560 Main Street	144,081
Total				144,081

FY 22-23

Department	Project Name	Fund	Source	\$
Airport	Taxiway A Reconstruction/Extension	General	Sale of Property - Airport	125,000
Total				125,000

FY 23-24

Department	Project Name	Fund	Source	\$
				-
Total				-

FY 24-25

Department	Project Name	Fund	Source	\$
Airport	Easement Acquisition	General	Sale of Property - Airport	15,000
Public Works	Water Main Cleaning & Lining	Water	Use of Surplus	300,000
Total				315,000

FY 25-26

Department	Project Name	Fund	Source	\$
				-
Total				-

FY 26-27

Department	Project Name	Fund	Source	\$
Parks & Rec	Robin Hood Pool Improvements	General	Donations/Fundraising	250,000
Total				250,000

GENERAL FUND

The General Fund is the governmental fund that is used to account for those activities that are not recorded in one of the other City funds that have been established under the authority of the City Council.

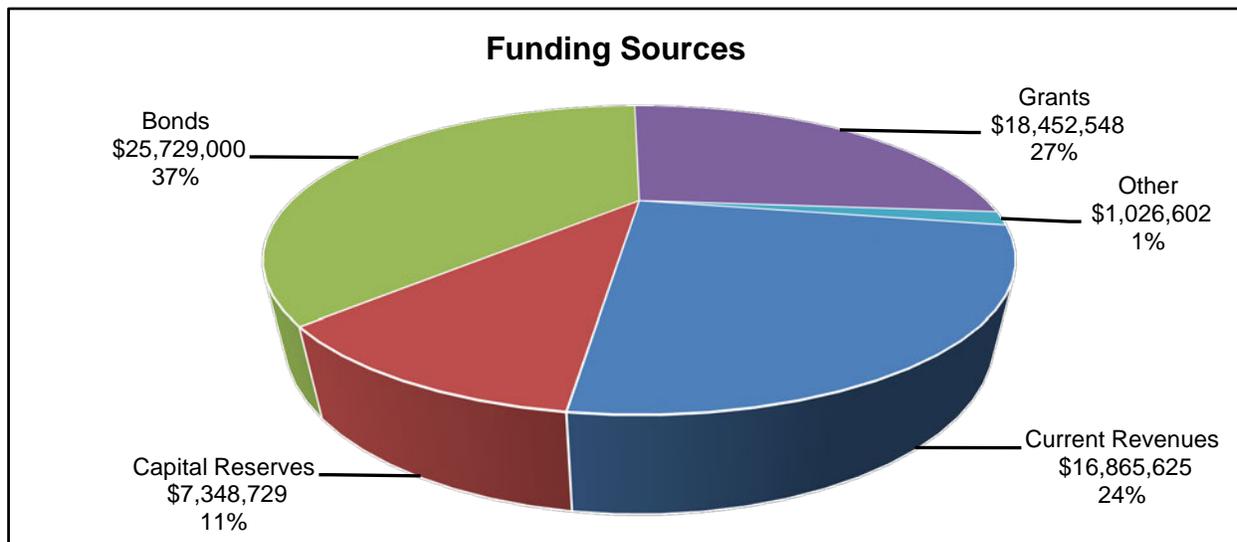
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GENERAL FUND

The General Fund section of the CIP is comprised of individual requests submitted by the majority of City departments and range from server replacements to major road reconstruction projects that span over the seven (7) years presented in this CIP that total \$69,422,504, or 60%, of the total \$116,237,233 for all funds.

There are multiple sources that contribute to the funding of each of the projects that alleviate the burden on the taxpayer. Bonding, grants, capital reserves, and other sources consist of 76% of the funding with current revenues making up the difference of 24% over the seven (7) years covered in this CIP.

The following chart summarizes the level of the General Fund funding sources proposed in this CIP.



The General Fund section of the FY2021-2027 CIP book has been reorganized into three (3) sections:

Community Services

Programs that are related to activities and services provided to the community for the benefit of the community. Fire and Police departments provide health, protection, and safety services while Parks and Recreation support health, wellness and open space and trails.

Projects identified include a comprehensive master plan update and a 10-year digital base map update, replacement of an ambulance and fire apparatus, improvements to municipal parks, Robin Hood dam repair, and replacement of police mobile and portable radios. The total cost of projects presented in the Community Services section is \$16,702,741.

Internal Support

Services that the City provides to support its own internal operations. Departments include assessing, finance, information technology, and facilities whose primary goal and focus are to maintain the City's structures and operational assets in good working condition, in an environmentally friendly, and economically efficient manner.

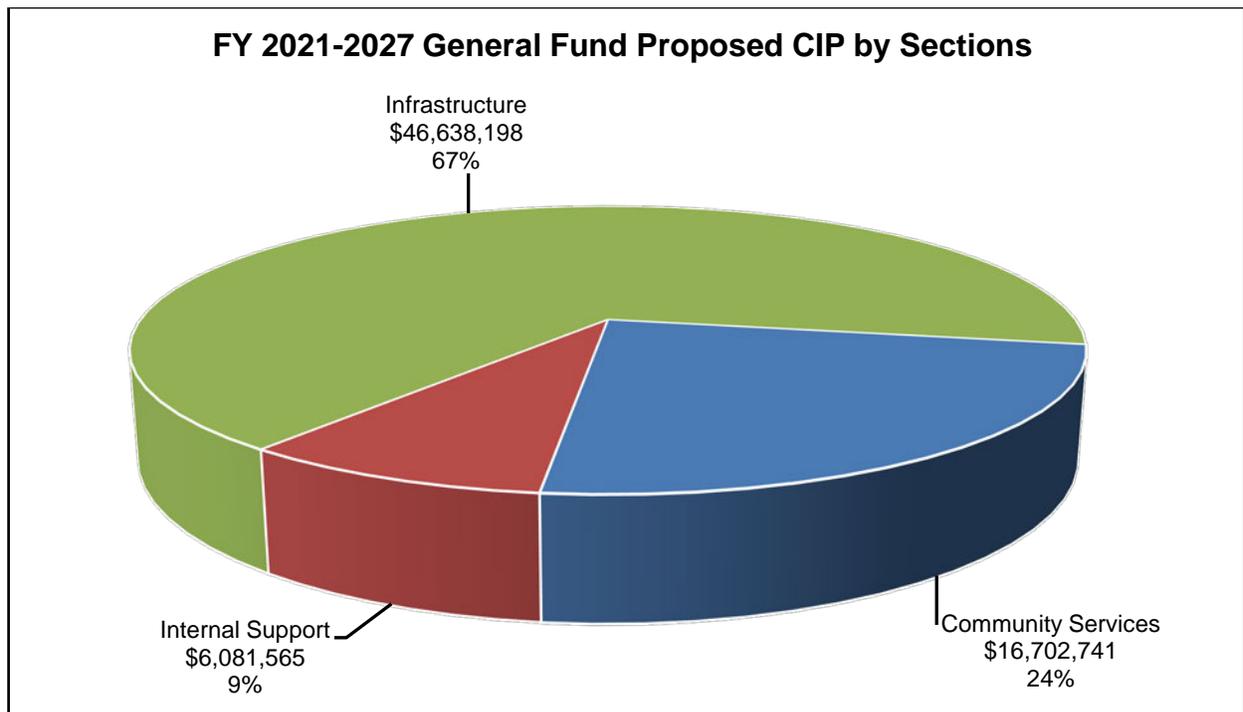
Projects include City revaluation, municipal building improvements, parking lot paving, financial software replacement, network equipment, and server replacement. The total cost of the projects presented in the Internal Support section is \$6,081,565.

Infrastructure

Programs and services that are intended to promote the retention and expansion of existing businesses, and to encourage new business development in the City of Keene. This group includes improvements to the transportation infrastructure (roads, bridges, sidewalks, and bike paths) intended to facilitate the safe and efficient movement within the City; and connect the local community with the Monadnock region, the state, and the world. Also included, are projects aimed at preventing and remediating conditions leading to localized flooding through preventive maintenance, drainage system improvements, and comprehensive stormwater infrastructure planning.

Projects include airport beacon replacements, pavement maintenance and marking, taxiway A reconstruction/extension, terminal apron expansion, roadway preservation and rehabilitation, sidewalk repair/replacement, salt shed replacement, and flood management projects. The total cost of Infrastructure projects is \$46,638,198.

The following graph highlights the General Fund Capital Improvements Program by each of the sections described above.



New Initiatives

With the focus on seeking alternative funding sources, this CIP is proposing to establish four (4) new capital reserves:

Emergency Communications

For city-wide purchases, replacement or upgrade of emergency communication systems and components, including and not limited to, portable and mobile radios, base stations, towers, repeaters, support infrastructure, emergency and dispatch center equipment, and software.

Information Technology Systems and Infrastructure

For the purchase, replacement or upgrade of organizational information technology software and hardware systems and infrastructure.

Reappraisal

For the revaluation of real estate for tax assessment purposes. A revaluation is required by state law, RSA 75:8-a, at least once every five years.

Road Infrastructure

For improvements in the roadway system, including but not limited to, road reconstruction, rehabilitation, and preservation, and associated components such as curbing, lighting, sidewalks, signals, and stormwater.

Proposed new General Fund projects included in this CIP are:

- Ductwork Central Fire Station – reinsulate the ductwork at the central fire station. This project is scheduled for FY21 at a cost of \$107,136.
- Paving Parking Lots – rehabilitation of the Department of Public Works lot is scheduled for FY26 at a cost of \$350,000. Rehabilitation of the Keene Recreation Center lot is scheduled for FY27 at a cost of \$126,676.
- Recreation Center Renovation – improvements and renovation to the lobby, restrooms and multipurpose room, and boiler replacement with a model for energy efficiencies. This renovation is scheduled for FY24 at a cost of \$1,475,000.
- Hydraulic Rescue Tools – hydraulic and electric rescue tools used for vehicle extrication, building collapse and machinery incidents. This project is scheduled for FY27 at a cost of \$60,000.
- SCBA Fill Station – replacement of the SCBA fill station. This project is scheduled for FY27 at a cost of \$75,000.
- Robin Hood Pool Improvements – new facility at Robin Hood Park to replace the current failing pool. This project is scheduled for FY27 at a cost of \$3,750,000.
- Transportation Heritage Trail – next phase in the Cheshire Rail Trail System. This project is scheduled to begin in FY24 with different stages each year through FY27 at a cost of \$2,578,800.

- Dispatch Console Replacement – replacement of the current dispatch console. This project is scheduled for FY22 at a cost of \$233,486.
- EXACOM Hindsight System Replacement/Refresh – replacement of the current system schedule in FY27 at a cost of \$35,000.
- Arts and Culture Corridor – design, replacement, and upgrade of City infrastructure to support the Arts and Culture Corridor scheduled in FY21 at a cost of \$770,000.
- Salt Shed Replacement – replacement of the 25-year-old salt shed with construction beginning in FY21 with completion in early FY23 at a cost of \$685,400.

The FY21-27 Capital Improvements Program for the General Fund provides the City with nearly \$70 million worth of improvements and assets paving the way for the future and a better community.

GENERAL FUND
2021 - 2027 Capital Improvement Program Summary

Dept.	Project Name	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	TOTAL
Fire	Capital Reserve - Ambulance Replacement	130,000	130,000	90,000	90,000	100,000	100,000	100,000	740,000
Fire	Capital Reserve - Apparatus Replacement	385,000	385,000	350,000	350,000	375,000	375,000	375,000	2,595,000
Public Works	Capital Reserve - Bridges	137,700	99,860	99,860	109,350	109,350	105,210	105,210	766,540
Public Works	Capital Reserve - Downtown Infrastructure	200,000	200,000	225,000	250,000	250,000	225,000	225,000	1,575,000
City Wide	Capital Reserve - Emergency Communication	40,000	235,000	50,000	50,000	50,000	50,000	50,000	525,000
IT	Capital Reserve - IT Systems & Infrastructure	50,000	120,000	35,000	110,000	35,000	35,000	35,000	420,000
Assessing	Capital Reserve - Reappraisal	82,500	82,500	35,000	35,000	35,000	35,000	35,000	340,000
Public Works	Capital Reserve - Road Infrastructure	391,627	0	0	0	0	0	0	391,627
Public Works	Capital Reserve - Transportation Improvement	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
TOTAL CAPITAL RESERVE APPROPRIATIONS		\$1,516,827	\$1,352,360	\$984,860	\$1,094,350	\$1,054,350	\$1,025,210	\$1,025,210	\$8,053,167
Airport	Beacon Replacement	25,000				500,000			525,000
Airport	Easement Acquisition					300,000			300,000
Airport	Fuel Tank Removal & Replacement	518,194							518,194
Airport	Pavement Maintenance & Marking				150,000	74,000	54,000		278,000
Airport	Perimeter Fence					1,350,000			1,350,000
Airport	Snow Removal Equipment				555,556				555,556
Airport	Taxiway A Reconstruction/Extension	4,200,000		2,500,000					6,700,000
Airport	Terminal Apron Expansion						1,300,000		1,300,000
TOTAL AIRPORT		\$4,743,194	\$0	\$2,500,000	\$705,556	\$2,224,000	\$1,354,000	\$0	\$11,526,750
Assessing	Revaluation	82,500	82,500				85,000	85,000	335,000
TOTAL ASSESSING		82,500	82,500	0	0	0	85,000	85,000	335,000
Comm Dev.	Digital Base Map Update					150,000			150,000
Comm Dev.	Master Plan Update			30,000	30,000				60,000
TOTAL COMMUNITY DEVELOPMENT		\$0	\$0	\$30,000	\$30,000	\$150,000	\$0	\$0	\$210,000
Facilities	Commercial Improvements		134,000						134,000
Facilities	Ductwork Central Fire Station	107,136							107,136
Facilities	Municipal Buildings Improvements	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
Facilities	Municipal Buildings Roofs			454,000	91,620	86,945	117,000	95,688	845,253
Facilities	Paving Parking Lots						350,000	126,676	476,676
Facilities	Recreation Center Renovation				1,475,000				1,475,000
TOTAL FACILITIES		\$207,136	\$234,000	\$554,000	\$1,666,620	\$186,945	\$567,000	\$322,364	\$3,738,065
Finance	Financial Software Replacement				30,000		615,000		645,000
TOTAL FINANCE		0	0	0	30,000	0	615,000	0	645,000
Fire	Ambulance Replacement		260,000			285,000			545,000
Fire	Apparatus Replacement	45,000	725,000	105,000		756,396			1,631,396
Fire	Breathing Apparatus Replacement				755,000				755,000
Fire	Hydraulic Rescue Tools							60,000	60,000
Fire	SCBA Fill Station							85,000	85,000
Fire	W Keene Fire Station Study		50,000						50,000
TOTAL FIRE		\$45,000	\$1,035,000	\$105,000	\$755,000	\$1,041,396	\$0	\$145,000	\$3,126,396
IT	Database Software		80,000						80,000
IT	Network Equipment Replacement	31,000	6,500	25,000					62,500
IT	Server Replacement	14,000	9,000	9,000		47,000		54,000	133,000
IT	Storage Area Network				125,000				125,000
IT	Telephone System Replacement			203,000					203,000
TOTAL IT		\$45,000	\$95,500	\$237,000	\$125,000	\$47,000	\$0	\$54,000	\$603,500
Parks & Rec.	Ashuelot River Dam Repair or Removal				87,400	495,300			582,700
Parks & Rec.	Campground Repurposed	40,000							40,000
Parks & Rec.	Municipal Park Improvements	50,000	50,000	75,000	75,000	90,000	75,000	75,000	490,000
Parks & Rec.	Open Space and Trails			50,000	85,000	35,000	35,000	35,000	240,000
Parks & Rec.	Patricia T. Russell Park		1,283,000						1,283,000
Parks & Rec.	Robin Hood Dam Repairs				83,200				83,200
Parks & Rec.	Robin Hood Pool Improvements							3,750,000	3,750,000
Parks & Rec.	Transportation Heritage Trail				26,600	225,200	587,000	1,740,000	2,578,800
TOTAL PARKS & RECREATION		\$90,000	\$1,333,000	\$125,000	\$357,200	\$845,500	\$697,000	\$5,600,000	\$9,047,700
Police	Dispatch Console Replacement		233,486						233,486
Police	EXACOM Hindsight System Replacement							35,000	35,000
Police	Mobile Radio Replacement			45,638	47,007	48,417			141,062
Police	Portable Radios	49,097							49,097
TOTAL POLICE		\$49,097	\$233,486	\$45,638	\$47,007	\$48,417	\$0	\$35,000	\$458,645
Public Works	Arts & Culture Corridor - Infrastructure	770,000							770,000
Public Works	Beaver Brook Flood Mitigation					503,000	503,000		1,006,000
Public Works	Bridge Repair / Replacement		117,398	15,653	649,600		172,282	11,485	966,418
Public Works	Curb Repair / Replacement	68,752	70,815	72,939	75,128	77,382	79,703	82,095	526,814
Public Works	Downtown Revitalization	100,000	500,000	550,000	450,000	550,000			2,150,000
Public Works	Drainage Pipe Lining			96,200	141,900	162,800	139,700	141,500	682,100
Public Works	Flood Management	733,000	744,000	774,000	215,220	147,645	842,000	102,210	3,558,075
Public Works	Lower Winchester Street Reconstruction	982,929	267,349	451,354		4,828,832	2,533,899		9,064,363
Public Works	Road Rehabilitation	893,000	1,672,000	1,248,000	1,728,000	1,264,000	1,512,000	1,512,000	9,829,000
Public Works	Salt Shed Replacement	105,000	144,081	436,319					685,400
Public Works	Sidewalks Repair / Replacement	68,752	70,815	72,939	75,128	77,381	79,702	82,094	526,811
Public Works	Stormwater Management System	42,400	43,700	45,000	46,400	47,800	49,200	50,700	325,200
Public Works	Stormwater Spot Repairs	68,800	70,900	73,000	75,200	77,500	79,800	82,200	527,400
Public Works	Traffic Signal Replacement Program			190,900	196,800	242,700	208,800	221,500	1,060,700
TOTAL PUBLIC WORKS		\$3,832,633	\$3,701,058	\$4,026,304	\$3,653,376	\$7,979,040	\$6,200,086	\$2,285,784	\$31,678,281
GRAND TOTAL - GENERAL FUND 2021-2027		\$10,611,387	\$8,066,904	\$8,607,802	\$8,464,109	\$13,576,648	\$10,543,296	\$9,552,358	\$69,422,504

GENERAL FUND Project Listing with Funding Sources

2021							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2020/2021
Fire	Capital Reserve - Ambulance Replacement	130,000					130,000
Fire	Capital Reserve - Apparatus Replacement	385,000					385,000
Public Works	Capital Reserve - Bridges	137,700					137,700
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
City-Wide	Capital Reserve - Emergency Communication	40,000					40,000
IT	Capital Reserve - IT Systems & Infrastructure	50,000					50,000
Assessing	Capital Reserve - Reappraisal	82,500					82,500
Public Works	Capital Reserve - Road Infrastructure	391,627					391,627
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Airport	Beacon Replacement	25,000					25,000
Airport	Fuel Tank Removal & Replacement			508,000		10,194	518,194
Airport	Taxiway A Reconstruction/Extension				3,990,000	210,000	4,200,000
Assessing	Revaluation		82,500				82,500
Facilities	Ductwork Central Fire Station	107,136					107,136
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Apparatus Replacement		45,000				45,000
IT	Network Equipment Replacement		31,000				31,000
IT	Server Replacement		14,000				14,000
Parks & Rec.	Campground Repurposed	40,000					40,000
Parks & Rec.	Municipal Park Improvements	50,000					50,000
Police	Portable Radios		39,301			9,796	49,097
Public Works	Arts & Culture Corridor - Infrastructure			770,000			770,000
Public Works	Curb Repair/Replacement	68,752					68,752
Public Works	Downtown Revitalization		100,000				100,000
Public Works	Flood Management			733,000			733,000
Public Works	Lower Winchester Street Reconstruction	81,455			786,343	115,131	982,929
Public Works	Road Rehabilitation			893,000			893,000
Public Works	Salt Shed Replacement					105,000	105,000
Public Works	Sidewalks Repair/Replacement	68,752					68,752
Public Works	Stormwater Management System					42,400	42,400
Public Works	Stormwater Spot Repairs	68,800					68,800
TOTAL GENERAL FUND - 2021		\$ 2,126,722	\$ 311,801	\$ 2,904,000	\$ 4,776,343	\$ 492,521	\$ 10,611,387
2022							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2021/2022
Fire	Capital Reserve - Ambulance Replacement	130,000					130,000
Fire	Capital Reserve - Apparatus Replacement	385,000					385,000
Public Works	Capital Reserve - Bridges	99,860					99,860
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
City-Wide	Capital Reserve - Emergency Communication	235,000					235,000
IT	Capital Reserve - IT Systems & Infrastructure	120,000					120,000
Assessing	Capital Reserve - Reappraisal	82,500					82,500
Public Works	Capital Reserve - Road Infrastructure						-
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Assessing	Revaluation		82,500				82,500
Facilities	Commercial Improvements		134,000				134,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Ambulance Replacement		260,000				260,000
Fire	Apparatus Replacement		725,000				725,000
Fire	W Keene Fire Station Study	50,000					50,000
IT	Database Software		80,000				80,000
IT	Network Equipment Replacement		6,500				6,500
IT	Server Replacement		9,000				9,000
Parks & Rec	Municipal Park Improvements	50,000					50,000
Parks & Rec.	Patricia T. Russell Park			1,283,000			1,283,000
Police	Dispatch Console Replacement		233,486				233,486
Public Works	Bridge Repair/Replacement		23,480		93,918		117,398
Public Works	Curb Repair/Replacement	70,815					70,815
Public Works	Downtown Revitalization		500,000				500,000
Public Works	Flood Management			744,000			744,000
Public Works	Lower Winchester Street Reconstruction	53,470			213,879		267,349
Public Works	Road Rehabilitation		750,000	922,000			1,672,000
Public Works	Salt Shed Replacement					144,081	144,081
Public Works	Sidewalks Repair/Replacement	70,815					70,815
Public Works	Stormwater Management System	43,700					43,700
Public Works	Stormwater Spot Repairs	70,900					70,900
TOTAL GENERAL FUND - 2022		\$ 1,862,060	\$ 2,803,966	\$ 2,949,000	\$ 307,797	\$ 144,081	\$ 8,066,904

GENERAL FUND

Project Listing with Funding Sources

2023							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2022/2023
Fire	Capital Reserve - Ambulance Replacement	90,000					90,000
Fire	Capital Reserve - Apparatus Replacement	350,000					350,000
Public Works	Capital Reserve - Bridges	99,860					99,860
Public Works	Capital Reserve - Downtown Infrastructure	225,000					225,000
City-Wide	Capital Reserve - Emergency Communication	50,000					50,000
IT	Capital Reserve - IT Systems & Infrastructure	35,000					35,000
Assessing	Capital Reserve - Reappraisal	35,000					35,000
Public Works	Capital Reserve - Road Infrastructure						-
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Airport	Taxiway A Reconstruction/Extension				2,375,000	125,000	2,500,000
Comm Dev.	Master Plan Update	30,000					30,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Facilities	Municipal Buildings Roofs			454,000			454,000
Fire	Apparatus Replacement		105,000				105,000
IT	Network Equipment Replacement		25,000				25,000
IT	Server Replacement		9,000				9,000
IT	Telephone System Replacement	203,000					203,000
Parks & Rec	Municipal Park Improvements	75,000					75,000
Parks & Rec	Open Space and Trails	50,000					50,000
Police	Mobile Radio Replacement		45,638				45,638
Public Works	Bridge Repair/Replacement		3,131		12,522		15,653
Public Works	Curb Repair/Replacement	72,939					72,939
Public Works	Downtown Revitalization		550,000				550,000
Public Works	Drainage Pipe Lining	96,200					96,200
Public Works	Flood Management			774,000			774,000
Public Works	Lower Winchester Street Reconstruction	90,271			361,083		451,354
Public Works	Road Rehabilitation			1,248,000			1,248,000
Public Works	Salt Shed Replacement	436,319					436,319
Public Works	Sidewalks Repair/Replacement	72,939					72,939
Public Works	Stormwater Management System	45,000					45,000
Public Works	Stormwater Spot Repairs	73,000					73,000
Public Works	Traffic Signal Replacement Program	50,000	140,900				190,900
TOTAL GENERAL FUND - 2023		\$ 2,379,528	\$ 878,669	\$ 2,476,000	\$ 2,748,605	\$ 125,000	\$ 8,607,802
2024							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2023/2024
Fire	Capital Reserve - Ambulance Replacement	90,000					90,000
Fire	Capital Reserve - Apparatus Replacement	350,000					350,000
Public Works	Capital Reserve - Bridges	109,350					109,350
Public Works	Capital Reserve - Downtown Infrastructure	250,000					250,000
City-Wide	Capital Reserve - Emergency Communication	50,000					50,000
IT	Capital Reserve - IT Systems & Infrastructure	110,000					110,000
Assessing	Capital Reserve - Reappraisal	35,000					35,000
Public Works	Capital Reserve - Road Infrastructure						-
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Airport	Pavement Maintenance & Marking	7,500			142,500		150,000
Airport	Snow Removal Equipment	27,778			527,778		555,556
Comm Dev.	Master Plan Update	30,000					30,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Facilities	Municipal Buildings Roofs	91,620					91,620
Facilities	Recreation Center Renovation			1,475,000			1,475,000
Finance	Financial Software Replacement	30,000					30,000
Fire	Breathing Apparatus Replacement			755,000			755,000
IT	Storage Area Network		125,000				125,000
Parks & Rec	Ashuelot River Dam Repair or Removal	87,400					87,400
Parks & Rec	Municipal Park Improvements	75,000					75,000
Parks & Rec	Open Space and Trails	85,000					85,000
Parks & Rec	Robin Hood Dam Repairs	83,200					83,200
Parks & Rec	Transportation Heritage Trail	26,600					26,600
Police	Mobile Radio Replacement		47,007				47,007
Public Works	Bridge Repair/Replacement		129,920		519,680		649,600
Public Works	Curb Repair/Replacement	75,128					75,128
Public Works	Downtown Revitalization		450,000				450,000
Public Works	Drainage Pipe Lining	141,900					141,900
Public Works	Flood Management	215,220					215,220
Public Works	Road Rehabilitation			1,728,000			1,728,000
Public Works	Sidewalks Repair/Replacement	75,128					75,128
Public Works	Stormwater Management System	46,400					46,400
Public Works	Stormwater Spot Repairs	75,200					75,200
Public Works	Traffic Signal Replacement Program	50,000	146,800				196,800
TOTAL GENERAL FUND - 2024		\$ 2,417,424	\$ 898,727	\$ 3,958,000	\$ 1,189,958	\$ -	\$ 8,464,109

GENERAL FUND

Project Listing with Funding Sources

2025							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2024/2025
Fire	Capital Reserve - Ambulance Replacement	100,000					100,000
Fire	Capital Reserve - Apparatus Replacement	375,000					375,000
Public Works	Capital Reserve - Bridges	109,350					109,350
Public Works	Capital Reserve - Downtown Infrastructure	250,000					250,000
City-Wide	Capital Reserve - Emergency Communication	50,000					50,000
IT	Capital Reserve - IT Systems & Infrastructure	35,000					35,000
Assessing	Capital Reserve - Reappraisal	35,000					35,000
Public Works	Capital Reserve - Road Infrastructure						-
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Airport	Beacon Replacement	25,000			475,000		500,000
Airport	Easement Acquisition				285,000	15,000	300,000
Airport	Pavement Maintenance & Marking	3,700			70,300		74,000
Airport	Perimeter Fence	67,500			1,282,500		1,350,000
Comm Dev.	Digital Base Map Update	150,000					150,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Facilities	Municipal Buildings Roofs	86,945					86,945
Fire	Ambulance Replacement		285,000				285,000
Fire	Apparatus Replacement		756,396				756,396
IT	Server Replacement		47,000				47,000
Parks & Rec	Ashuelot River Dam Repair or Removal	495,300					495,300
Parks & Rec	Municipal Park Improvements	90,000					90,000
Parks & Rec	Open Space and Trails	35,000					35,000
Parks & Rec	Transportation Heritage Trail	225,200					225,200
Police	Mobile Radio Replacement		48,417				48,417
Public Works	Beaver Brook Flood Mitigation			503,000			503,000
Public Works	Curb Repair/Replacement	77,382					77,382
Public Works	Downtown Revitalization		550,000				550,000
Public Works	Drainage Pipe Lining	162,800					162,800
Public Works	Flood Management	147,645					147,645
Public Works	Lower Winchester Street Reconstruction			970,000	3,858,832		4,828,832
Public Works	Road Rehabilitation			1,264,000			1,264,000
Public Works	Sidewalks Repair/Replacement	77,381					77,381
Public Works	Stormwater Management System	47,800					47,800
Public Works	Stormwater Spot Repairs	77,500					77,500
Public Works	Traffic Signal Replacement Program	50,000	192,700				242,700
TOTAL GENERAL FUND - 2025		\$ 2,973,503	\$ 1,879,513	\$ 2,737,000	\$ 5,971,632	\$ 15,000	\$ 13,576,648
2026							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2025/2026
Fire	Capital Reserve - Ambulance Replacement	100,000					100,000
Fire	Capital Reserve - Apparatus Replacement	375,000					375,000
Public Works	Capital Reserve - Bridges	105,210					105,210
Public Works	Capital Reserve - Downtown Infrastructure	225,000					225,000
City-Wide	Capital Reserve - Emergency Communication	50,000					50,000
IT	Capital Reserve - IT Systems & Infrastructure	35,000					35,000
Assessing	Capital Reserve - Reappraisal	35,000					35,000
Public Works	Capital Reserve - Road Infrastructure						-
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Airport	Pavement Maintenance & Marking	2,700			51,300		54,000
Airport	Terminal Apron Expansion	65,000			1,235,000		1,300,000
Assessing	Revaluation		85,000				85,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Facilities	Municipal Buildings Roofs	117,000					117,000
Facilities	Paving Parking Lots	350,000					350,000
Finance	Financial Software Replacement	615,000					615,000
Parks & Rec	Open Space and Trails	35,000					35,000
Parks & Rec	Municipal Park Improvements	75,000					75,000
Parks & Rec	Transportation Heritage Trail			587,000			587,000
Public Works	Beaver Brook Flood Mitigation			503,000			503,000
Public Works	Bridge Repair/Replacement		34,456		137,826		172,282
Public Works	Curb Repair/Replacement	79,703					79,703
Public Works	Drainage Pipe Lining	139,700					139,700
Public Works	Flood Management			842,000			842,000
Public Works	Lower Winchester Street Reconstruction			509,000	2,024,899		2,533,899
Public Works	Road Rehabilitation			1,512,000			1,512,000
Public Works	Sidewalks Repair/Replacement	79,702					79,702
Public Works	Stormwater Management System	49,200					49,200
Public Works	Stormwater Spot Repairs	79,800					79,800
Public Works	Traffic Signal Replacement Program	75,000	133,800				208,800
TOTAL GENERAL FUND - 2026		\$ 2,888,015	\$ 253,256	\$ 3,953,000	\$ 3,449,025	\$ -	\$ 10,543,296

GENERAL FUND

Project Listing with Funding Sources

2027							
Dept.	Project Name	Current Revenues	Capital Reserves	Bonds	Grants	Other	2026/2027
Fire	Capital Reserve - Ambulance Replacement	100,000					100,000
Fire	Capital Reserve - Apparatus Replacement	375,000					375,000
Public Works	Capital Reserve - Bridges	105,210					105,210
Public Works	Capital Reserve - Downtown Infrastructure	225,000					225,000
City-Wide	Capital Reserve - Emergency Communication	50,000					50,000
IT	Capital Reserve - IT Systems & Infrastructure	35,000					35,000
Assessing	Capital Reserve - Reappraisal	35,000					35,000
Public Works	Capital Reserve - Road Infrastructure						-
Public Works	Capital Reserve - Transportation Improvement	100,000					100,000
Assessing	Revaluation		85,000				85,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Facilities	Municipal Buildings Roofs	95,688					95,688
Facilities	Paving Parking Lots	126,676					126,676
Fire	Hydraulic Rescue Tools	60,000					60,000
Fire	SCBA Fill Station	85,000					85,000
IT	Server Replacement		54,000				54,000
Parks & Rec	Municipal Park Improvements	75,000					75,000
Parks & Rec	Open Space and Trails	35,000					35,000
Parks & Rec	Robin Hood Pool Improvements			3,500,000		250,000	3,750,000
Parks & Rec	Transportation Heritage Trail			1,740,000			1,740,000
Police	EXACOM Hindsight System Replacement		35,000				35,000
Public Works	Bridge Repair/Replacement		2,297		9,188		11,485
Public Works	Curb Repair/Replacement	82,095					82,095
Public Works	Drainage Pipe Lining	141,500					141,500
Public Works	Flood Management	102,210					102,210
Public Works	Road Rehabilitation			1,512,000			1,512,000
Public Works	Sidewalks Repair/Replacement	82,094					82,094
Public Works	Stormwater Management System	50,700					50,700
Public Works	Stormwater Spot Repairs	82,200					82,200
Public Works	Traffic Signal Replacement Program	75,000	146,500				221,500
TOTAL GENERAL FUND - 2027		\$ 2,218,373	\$ 322,797	\$ 6,752,000	\$ 9,188	\$ 250,000	\$ 9,552,358

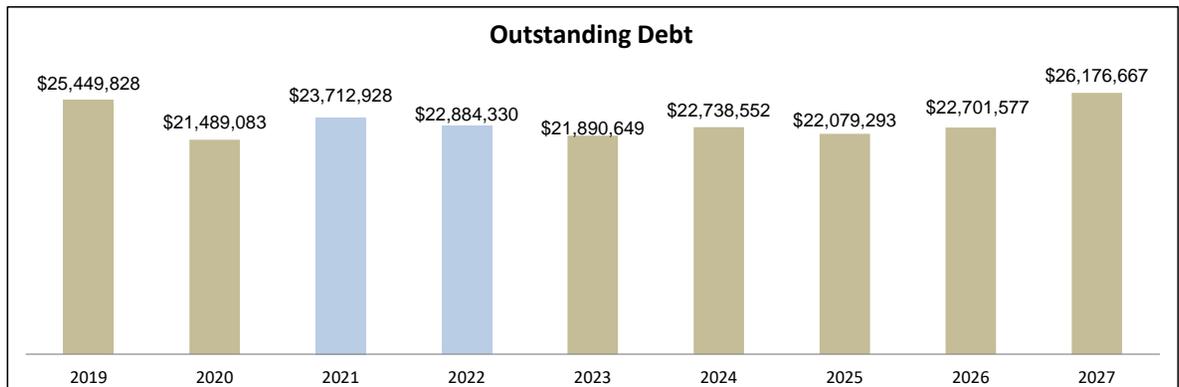
General Fund

2021 - 2027 CIP Debt Summary

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing and Authorized Debt	\$24,293,083	\$23,712,928	\$22,884,330	\$21,890,649	\$22,738,552	\$22,079,293	\$22,701,577
New Issues Proposed	2,904,000	2,949,000	2,476,000	3,958,000	2,737,000	3,953,000	6,752,000 ⁽¹⁾
Principal Paid	(3,484,155)	(3,777,598)	(3,469,681)	(3,110,097)	(3,396,259)	(3,330,716)	(3,276,910)
Total Existing Debt & Issues Proposed	\$23,712,928	\$22,884,330	\$21,890,649	\$22,738,552	\$22,079,293	\$22,701,577	\$26,176,667

	<u>Issue</u>	<u>Term</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing & Authorized Debt Service (P & I)			\$4,289,271	\$4,246,568	\$3,585,486	\$2,905,031	\$2,722,336	\$2,350,591	\$1,908,279
Proposed Debt Service CIP FY21									
Airport Fuel Tank Remove/Replace	508,000	10	10,160	70,104	68,072	66,040	64,008	61,976	59,944
Arts & Culture Corridor	770,000	10	15,400	106,260	103,180	100,100	97,020	93,940	90,860
Flood Management	733,000	15	14,660	77,209	75,255	73,300	71,345	69,391	67,436
Road Rehabilitation	893,000	10	17,860	123,234	119,662	116,090	112,518	108,946	105,374
Proposed Debt Service CIP FY22									
Flood Management	744,000	15	14,880	78,368	76,384	74,400	72,416	70,432	
Patricia T. Russell Park	1,283,000	15	25,660	135,143	131,721	128,300	124,879	121,457	
Road Rehabilitation	1,679,000	10	33,580	231,702	224,986	218,270	211,554	204,838	
Debt Reduction - Muni Rev Share	(757,000)		(15,140)	(104,466)	(101,438)	(98,410)	(95,382)	(92,354)	
Proposed Debt Service CIP FY23									
Flood Management	774,000	15			15,480	81,528	79,464	77,400	75,336
Municipal Building Roofs	454,000	15			9,080	47,821	46,611	45,400	44,189
Road Rehabilitation	1,248,000	10			24,960	172,224	167,232	162,240	157,248
Proposed Debt Service CIP FY24									
Breathing Apparatus	755,000	7				15,100	135,900	131,586	127,271
Recreation Center Renovation	1,475,000	15				29,500	155,367	151,433	147,500
Road Rehabilitation	1,728,000	10				34,560	238,464	231,552	224,640
Proposed Debt Service CIP FY25									
Beaver Brook Mitigation	503,000	15					10,060	52,983	51,641
Lower Winchester St Reconstruction	970,000	15					19,400	102,173	99,587
Road Rehabilitation	1,264,000	10					25,280	174,432	169,376
Proposed Debt Service CIP FY26									
Beaver Brook Mitigation	503,000	15						10,060	52,983
Flood Management	842,000	15						16,840	88,691
Lower Winchester St Reconstruction	509,000	15						10,180	53,615
Road Rehabilitation	1,512,000	10						30,240	208,656
Transportation Heritage Trail	587,000	15						11,740	61,831
Proposed Debt Service CIP FY27									
Road Rehabilitation	1,512,000	10							30,240
Robin Hood Pool Improvements ⁽¹⁾	3,500,000	15							70,000
Transportation Heritage Trail	1,740,000	15							34,800
Total CIP 21-27 Debt Service Proposed			58,080	435,787	756,435	1,067,917	1,545,229	1,855,978	2,325,591
Total Projected Debt Service: General Fund			\$4,347,351	\$4,682,356	\$4,341,922	\$3,972,948	\$4,267,565	\$4,206,569	\$4,233,870

(1) FY 2027 - includes \$3,500,000 placeholder for Robin Hood Pool Improvements



General Fund

Ambulance Capital Reserve

The purpose of the Ambulance Capital Reserve is for the acquisition or significant rehabilitation of ambulances.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Ambulance Replacement		(260,000)			(285,000)		
Total Expenditures	\$0	(\$260,000)	\$0	\$0	(\$285,000)	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	130,000	130,000	90,000	90,000	100,000	100,000	100,000
Estimated Investment Earnings	680	33	483	936	16	516	1,018
Total Receipts	\$130,680	\$130,033	\$90,483	\$90,936	\$100,016	\$100,516	\$101,018
Estimated End of Year Reserve Balance							
	\$136,663	\$6,696	\$97,179	\$188,115	\$3,131	\$103,647	\$204,665

General Fund

Apparatus (Fire) Capital Reserve

The purpose of the Fire Equipment Capital Reserve is for the acquisition or significant rehabilitation of the fire apparatus.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Brush Truck	(45,000)		(45,000)				
Rescue Truck					(756,396)		
Tanker Truck		(725,000)					
Utility Truck			(60,000)				
Total Expenditures	(\$45,000)	(\$725,000)	(\$105,000)	\$0	(\$756,396)	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	385,000	385,000	350,000	350,000	375,000	375,000	375,000
Estimated Investment Earnings	1,782	91	1,316	3,073	1,181	3,062	4,952
Total Receipts	\$386,782	\$385,091	\$351,316	\$353,073	\$376,181	\$378,062	\$379,952
Estimated End of Year Reserve Balance	\$358,134	\$18,225	\$264,541	\$617,614	\$237,399	\$615,461	\$995,413

General Fund

Bridge Capital Reserve

The purpose of the Bridge Capital Reserve is for the construction, reconstruction, and rehabilitation of bridges.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Beaver Street over Beaver Brook						(34,456)	(2,297)
George Street over Beaver Brook		(23,480)	(3,131)	(129,920)			
Total Expenditures	\$0	(\$23,480)	(\$3,131)	(\$129,920)	\$0	(\$34,456)	(\$2,297)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues							
Beaver Street over Beaver Brook	137,700						
Church Street over Beaver Brook				109,350	109,350		
Maple Avenue over Black Brook		99,860	99,860				
Ferry Brook Road over Ferry Brook						105,210	105,210
Subtotal Bridge Appropriations	137,700	99,860	99,860	109,350	109,350	105,210	105,210
Estimated Investment Earnings	715	1,100	1,590	1,495	2,049	2,413	2,939
Total Receipts	\$138,415	\$100,960	\$101,450	\$110,845	\$111,399	\$107,623	\$108,149
Estimated End of Year Reserve Balance							
	\$143,694	\$221,174	\$319,493	\$300,417	\$411,816	\$484,983	\$590,836

General Fund

Downtown Infrastructure Capital Reserve

The purpose of the Downtown Infrastructure and Facility Improvement Capital Reserve is for infrastructure and facility improvements in the downtown.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Commercial Improvements		(134,000)					
Downtown Revitalization	(100,000)	(500,000)	(550,000)	(450,000)	(550,000)		
Total Expenditures	<u>(\$100,000)</u>	<u>(\$634,000)</u>	<u>(\$550,000)</u>	<u>(\$450,000)</u>	<u>(\$550,000)</u>	<u>\$0</u>	<u>\$0</u>
<u>Proposed Revenues</u>							
Appropriation - Wells Street TIF District	200,000	200,000	225,000	250,000	250,000	225,000	225,000
Estimated Investment Earnings	6,508	4,370	2,767	1,781	290	1,416	2,548
Total Receipts	<u>\$206,508</u>	<u>\$204,370</u>	<u>\$227,767</u>	<u>\$251,781</u>	<u>\$250,290</u>	<u>\$226,416</u>	<u>\$227,548</u>
Estimated End of Year Reserve Balance	\$1,308,075	\$878,445	\$556,212	\$357,993	\$58,283	\$284,700	\$512,248

General Fund

Emergency Communication Capital Reserve (Proposed)

The purpose of the Emergency Communication Capital Reserve is to fund, wholly or in part, the city-wide purchase, replacement or upgrade of emergency communication systems and components, including and not limited to portable and mobile radios, base stations, towers, repeaters, support infrastructure, emergency and dispatch center equipment, and software.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Police Portable Radios	(39,301)						
Police Mobile Radios			(45,638)	(47,007)	(48,417)		
Dispatch Consoles		(233,486)					
EXACOM Hindsight System							(35,000)
Total Expenditures	(\$39,301)	(\$233,486)	(\$45,638)	(\$47,007)	(\$48,417)	\$0	(\$35,000)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	40,000	235,000	50,000	50,000	50,000	50,000	50,000
Estimated Investment Earnings	0	98	103	79	19	194	100
Total Receipts	\$40,000	\$235,098	\$50,103	\$50,079	\$50,019	\$50,194	\$50,100
<u>Estimated End of Year Reserve Balance</u>							
	\$699	\$2,311	\$6,775	\$9,847	\$11,449	\$61,643	\$76,743

General Fund

Information Technology Systems and Infrastructure Capital Reserve (Proposed)

The purpose of the IT Systems and Infrastructure Capital Reserve is to fund, wholly or in part, the purchase, replacement or upgrade of organizational information technology software and hardware systems and infrastructure.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Database Software		(80,000)					
Network Equipment Replacement	(31,000)	(6,500)	(25,000)				
Server Replacement	(14,000)	(9,000)	(9,000)		(47,000)		(54,000)
Storage Area Network				(125,000)			
Total Expenditures	<u>(\$45,000)</u>	<u>(\$95,500)</u>	<u>(\$34,000)</u>	<u>(\$125,000)</u>	<u>(\$47,000)</u>	<u>\$0</u>	<u>(\$54,000)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	50,000	120,000	35,000	110,000	35,000	35,000	35,000
Estimated Investment Earnings	25	148	153	79	20	195	101
Total Receipts	<u>\$50,025</u>	<u>\$120,148</u>	<u>\$35,153</u>	<u>\$110,079</u>	<u>\$35,020</u>	<u>\$35,195</u>	<u>\$35,101</u>
Estimated End of Year Reserve Balance	<u>\$5,025</u>	<u>\$29,673</u>	<u>\$30,826</u>	<u>\$15,905</u>	<u>\$3,925</u>	<u>\$39,119</u>	<u>\$20,220</u>

General Fund

Reappraisal Capital Reserve (Proposed)

The purpose of the Reappraisal Capital Reserve is to fund, wholly or in part, the revaluation of real estate for tax assessment purposes. A revaluation is required by state law, RSA 75:8-a, at least once every five years.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Revaluation	(82,500)	(82,500)				(85,000)	(85,000)
Total Expenditures	<u>(\$82,500)</u>	<u>(\$82,500)</u>	\$0	\$0	\$0	(\$85,000)	(\$85,000)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	82,500	82,500	35,000	35,000	35,000	35,000	35,000
Estimated Investment Earnings	0	0	175	351	528	280	32
Total Receipts	<u>\$82,500</u>	<u>\$82,500</u>	<u>\$35,175</u>	<u>\$35,351</u>	<u>\$35,528</u>	<u>\$35,280</u>	<u>\$35,032</u>
Estimated End of Year Reserve Balance	\$0	\$0	\$35,175	\$70,526	\$106,054	\$56,334	\$6,365

General Fund

Road Infrastructure Capital Reserve (Proposed)

The purpose of the Road Infrastructure Capital Reserve is to fund, wholly or in part, improvements in the roadway system, including but not limited to, road reconstruction, rehabilitation, and preservation, and associated components such as curbing, lighting, sidewalks, signals, and stormwater.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Roadway Preservation & Rehabilitation		(750,000)					
Total Expenditures	\$0	(\$750,000)	\$0	\$0	\$0	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	391,627						
Estimated Investment Earnings	3,916	186	187	188	189	190	191
Total Receipts	\$395,543	\$186	\$187	\$188	\$189	\$190	\$191
Estimated End of Year Reserve Balance	\$787,170	\$37,356	\$37,543	\$37,731	\$37,919	\$38,109	\$38,299

General Fund

Transportation Improvements Capital Reserve

The purpose of the Transportation Improvements Capital Reserve is to fund, wholly or in part, improvements in the transportation system including roads, bridges, bicycle and pedestrian facilities, and intermodal facilities, except for parking.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Traffic Signal Replacement			(140,900)	(146,800)	(192,700)	(133,800)	(146,500)
Total Expenditures	\$0	\$0	(\$140,900)	(\$146,800)	(\$192,700)	(\$133,800)	(\$146,500)
<u>Proposed Revenues</u>							
Appropriation - MV Registration Surcharge (\$5)	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Estimated Investment Earnings	1,142	1,648	1,452	1,225	767	602	373
Total Receipts	\$101,142	\$101,648	\$101,452	\$101,225	\$100,767	\$100,602	\$100,373
Estimated End of Year Reserve Balance							
	\$229,574	\$331,222	\$291,774	\$246,199	\$154,266	\$121,068	\$74,941

General Fund

2021 - 2027 Capital Improvement Program Multi-Year Projections

	ACTUAL 2018/2019	ADOPTED BUDGET 2019/2020	PROJECTED 2020/2021	PROJECTED 2021/2022	PROJECTED 2022/2023	PROJECTED 2023/2024	PROJECTED 2024/2025	PROJECTED 2025/2026	PROJECTED 2026/2027
REVENUES									
Property Tax	\$24,864,983	\$25,269,436	\$25,854,289	\$26,437,956	\$27,265,642	\$28,201,184	\$29,342,003	\$30,547,166	\$30,649,019
Other Local Taxes	449,121	1,107,250	1,133,350	1,160,210	1,171,812	1,177,672	1,183,560	1,189,478	1,195,425
Tax Increment Financing	725,732	758,839	716,374	717,807	724,985	732,235	746,879	765,551	784,690
Licenses, Permits & Fees	3,987,991	3,651,852	3,761,408	3,799,022	3,837,012	3,875,382	3,914,136	3,953,277	3,992,810
Intergovernmental	2,683,389	3,081,316	3,142,942	2,816,521	2,844,687	2,858,910	2,873,205	2,887,571	2,902,009
Charges for Services	2,434,399	1,958,705	1,978,292	2,025,178	2,055,555	2,086,389	2,123,318	2,160,900	2,199,148
Fines & Forfeits	65,743	76,291	77,817	79,661	80,458	81,262	82,075	82,896	83,725
Miscellaneous	1,867,486	1,987,201	2,332,073	2,191,410	2,178,902	2,074,441	2,095,186	2,116,138	2,387,299
Other Financing Sources (including capital reserve)	2,162,046	3,397,780	2,899,457	5,232,681	3,251,390	3,307,039	4,335,991	2,651,755	2,748,615
Noncurrent Revenue Sources to Fund Capital	325,038	647,103							
Use of Fund Balance	\$39,565,927	\$42,581,234	\$42,271,002	\$45,360,446	\$44,610,443	\$44,894,514	\$47,671,353	\$46,554,732	\$46,942,740
SUBTOTAL - current revenues	2,766,000	2,804,000	2,904,000	2,949,000	2,476,000	3,958,000	2,737,000	3,953,000	6,752,000
Sale of Bonds	\$42,331,927	\$45,385,234	\$45,175,002	\$48,309,446	\$47,086,443	\$48,852,514	\$50,408,353	\$50,507,732	\$53,694,740
TOTAL REVENUES									
	\$132,458	\$146,260	\$149,726	\$152,720	\$155,240	\$157,802	\$160,406	\$163,052	\$165,743
Mayor & City Council	453,077	466,784	477,847	487,404	495,446	503,621	511,930	520,377	528,964
City Manager	589,438	631,635	631,458	644,087	654,715	665,517	676,499	687,661	699,007
City Clerk & Elections	299,471	347,787	356,030	363,150	369,142	375,233	381,424	387,718	394,115
City Attorney	262,550	277,365	277,365	277,365	277,365	277,365	277,365	277,365	277,365
Outside Agencies	73,793	98,072	100,396	102,404	104,094	105,811	107,557	109,332	111,136
Unclassified	365,543	681,753	747,911	762,869	971,260	985,829	1,196,673	1,134,012	1,346,486
Employee Benefits	284,654	265,813	272,113	277,555	282,135	286,790	291,522	296,332	301,222
Risk Management	\$2,460,984	\$2,921,469	\$3,012,846	\$3,067,554	\$3,309,397	\$3,357,968	\$3,603,376	\$3,575,849	\$3,824,038
Total Elected/Appointed Officials									
EXPENDITURES									
ELECTED/APPOINTED OFFICIALS:									
ADMINISTRATIVE SERVICES:									
Assessment	\$481,024	\$492,891	\$504,573	\$514,664	\$524,957	\$535,456	\$546,166	\$557,089	\$568,231
Finance	2,166,563	2,485,810	2,544,724	2,595,618	2,647,531	2,700,481	2,754,491	2,809,581	2,865,772
Human Resources	366,155	392,353	397,680	405,633	413,746	422,021	430,461	439,071	447,852
Information Technology	1,262,813	1,316,822	1,348,031	1,374,991	1,402,491	1,430,541	1,459,152	1,488,335	1,518,101
Total Administrative Services	\$4,276,555	\$4,687,876	\$4,795,008	\$4,890,906	\$4,988,725	\$5,088,499	\$5,190,270	\$5,294,076	\$5,399,956
COMMUNITY SERVICES:									
Fire & Ambulance	\$6,934,790	\$7,184,300	\$7,354,568	\$7,501,659	\$7,689,201	\$7,842,985	\$7,999,844	\$8,159,841	\$8,323,038
Library	1,421,022	1,472,295	1,504,168	1,534,252	1,573,375	1,604,843	1,636,939	1,669,678	1,703,072
Parks, Recreation & Facilities	3,398,422	3,705,994	3,774,478	3,849,968	3,939,490	4,018,280	4,098,645	4,180,618	4,264,231
Police	7,264,488	7,637,775	7,818,790	7,975,166	8,174,545	8,338,036	8,504,797	8,674,893	8,848,391
Total Community Services	\$19,018,722	\$20,000,364	\$20,452,004	\$20,861,045	\$21,376,611	\$21,804,144	\$22,240,225	\$22,685,030	\$23,138,732

General Fund

2021 - 2027 Capital Improvement Program Multi-Year Projections

	ACTUAL 2018/2019	ADOPTED BUDGET 2019/2020	PROJECTED 2020/2021	PROJECTED 2021/2022	PROJECTED 2022/2023	PROJECTED 2023/2024	PROJECTED 2024/2025	PROJECTED 2025/2026	PROJECTED 2026/2027
MUNICIPAL DEVELOPMENT SERVICES:									
Airport	\$638,410	\$743,817	\$710,982	\$725,201	\$741,881	\$756,719	\$771,853	\$787,290	\$803,036
Community Development	1,424,771	1,492,501	1,523,267	1,553,732	1,589,468	1,621,257	1,653,682	1,686,756	1,720,491
Public Works	4,009,678	4,578,285	4,676,023	4,769,543	4,879,243	4,976,828	5,076,364	5,177,892	5,281,449
Total Mun. Development Services	\$6,072,859	\$6,814,603	\$6,910,272	\$7,048,476	\$7,210,592	\$7,354,804	\$7,501,899	\$7,651,938	\$7,804,976
CAPITAL PROGRAM:									
Debt Service (including repayment of interfund loan)	4,467,463	4,898,455	4,347,351	4,682,356	4,341,922	3,972,948	4,267,565	4,206,569	4,233,869
CAPITAL PROJECTS (not funded by debt)	1,653,434	3,258,467	2,753,523	4,810,107	3,383,197	3,316,151	4,868,016	3,141,271	2,541,170
Total Capital	\$6,120,897	\$8,156,922	\$7,100,874	\$9,492,463	\$7,725,119	\$7,289,099	\$9,135,581	\$7,347,840	\$6,775,039
SUBTOTAL - current expenditures	\$37,950,017	\$42,581,234	\$42,271,004	\$45,360,444	\$44,610,444	\$44,894,514	\$47,671,353	\$46,554,734	\$46,942,741
CAPITAL PROJECTS (funded by bonds)	2,766,000	2,804,000	2,904,000	2,949,000	2,476,000	3,958,000	2,737,000	3,953,000	6,752,000
TOTAL EXPENDITURES	\$40,716,017	\$45,385,234	\$45,175,004	\$48,309,444	\$47,086,444	\$48,852,514	\$50,408,353	\$50,507,734	\$53,694,741

CITY PROPERTY TAX REVENUE INCREASE	\$584,853	\$583,667	\$827,686	\$935,542	\$1,140,819	\$1,205,163	\$101,853
CITY PROPERTY TAX REVENUE INCREASE (%)	2.31%	2.26%	3.13%	3.43%	4.05%	4.11%	0.33%
Assessments (trended 1% every 2 years)	1,815,127,254	1,815,127,254	1,833,278,527	1,833,278,527	1,851,611,312	1,851,611,312	1,870,127,425
ADD: Overlay	\$1,306,438	\$750,000	\$300,000	\$700,000	\$200,000	\$200,000	\$200,000
ADD: War Service Credits	\$303,063	\$303,063	\$303,063	\$303,063	\$303,063	\$303,063	\$303,063
Property Tax Rate - City Share	\$14.81	\$15.15	\$15.20	\$15.93	\$16.12	\$16.77	\$16.66
City Tax Rate Increase (decrease)	2.14%	0.12%	0.37%	4.79%	1.18%	4.04%	-0.67%
DEBT AS % OF OPERATING BUDGET	11.50%	10.32%	9.73%	8.85%	8.95%	9.04%	9.02%

COMMUNITY SERVICES (GENERAL FUND)

Programs that are related to activities and services provided to the community for the benefit of the community. Fire and Police departments provide health, protection, and safety services while Parks and Recreation support health, wellness and open space and trails.

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2021 - 2027 Capital Project Funding Request Community Development



GENERAL PROJECT DATA

Project Name: Comprehensive Master Plan Update

Project Number: 90197-23
 Physical Location: City-Wide
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: RSA 674:1-5

Master Plan (CMP) Focus Area: Vibrant Economy
 CMP Vision/Strategy: Collaborative Community Planning

V.O.I.C.E: Establish Priorities

Departmental Objective: Development and implementation of the City's Master Plan is the highest priority. These plans set forth the community's vision for the future and lay the groundwork for the policies and programs intended to achieve that vision.



PROJECT DESCRIPTION/JUSTIFICATION

Keene's Comprehensive Master Plan (CMP) adopted in 2010, began in 2008 with an award-winning "Community Vision". The CMP embodies the community's vision of how the City and region could, and should be, for future generations. This plan is a guide to assist the community and City government in making decisions to move the community forward toward a more sustainable Keene. The 2010 CMP covers a broad scope of twenty-one topic areas, which range from "Community Sustainability" to "Economic Development", "Community Health & Wellness" to "Climate Change". The process to develop this plan involved extensive public outreach and engagement, through which over 2,000 people participated in community forums, focus groups, and/or study circles. It is now nine years later and many aspects of our economic, environmental, and social context have changed. It is time to revisit and update this plan. Per NH RSA 674:3(II) revisions to the plan are recommended every 5 to 10 years.

This update will focus on strategic areas. An initial renewal and/or update of Keene's Community Vision will be conducted following a series of facilitated community meetings and period of public input and engagement. An update of the community snapshot(s) section(s) of the plan, will provide an overview of Keene's socioeconomic and demographic profile through the use of current data and trend analysis. Each of the plan's multiple topic-oriented chapters will be examined and updated to reflect current community priorities. Throughout the process, citizens and community partners will be asked to join with the City to identify priorities and establish a list of action steps for implementation. This input will inform the development of an implementation section that will outline and prioritize strategies for achieving the plan's updated goals and objectives.

This project is anticipated to take place over a period of two years. Funding will support professional services to assist with organizing and facilitating public engagement activities, collecting and analyzing current demographic and socioeconomic data and historical trends, the development of updated plan language, and the reorganization and graphic layout of a revised document.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				30,000	30,000				60,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$30,000	\$30,000	\$0	\$0	\$0	\$60,000
FUNDING									
Current Revenue				30,000	30,000				60,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$30,000	\$30,000	\$0	\$0	\$0	\$60,000

2021 - 2027 Capital Project Funding Request Community Development



GENERAL PROJECT DATA

Project Name: 10 Year Digital Base Map Update

Project Number: 90124-25
 Physical Location: City-Wide
 Project Status: Re-introduced
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: **GIS Strategic Plan, March 2019 - Goal:** Maintain and Grow a robust GIS System and Program, **Recommendation:** Integrate Geospatial Data; Continue traditional and accurate data layer development and timely updates of base mapping (five-ten years)...



PROJECT DESCRIPTION/JUSTIFICATION

This project updates the existing digital base map for the City of Keene. Topographical mapping with new aerial photographs will create orthorectified imagery to produce digital planimetric data. Up-to-date base maps are the most necessary component and foundation of an accurate GIS. Updates to Keene's 2015 digital base map and aerial imagery are needed to keep the City's GIS an effective tool. Accurate planimetric data derived from orthophotography will be gathered, including buildings, roads, utilities, water bodies and other natural and manmade features. Interim imagery and some features will be collected in 2020, but a full photogrammetric project is recommended to be updated every ten years, both across the municipal sector and in Keene's March 2019 GIS Strategic Plan.

Keene's GIS supports city departments, especially first responders; City Council, Planning Board, and other official boards, commissions, and committees. It also assists public utilities; regional, state and federal agencies; as well as the construction, development, real estate, economic development initiatives; and helps the general public's ability to access City data and information. This CIP project would continue the City's seven-decade history of completing timely updates to its aerial imagery. In order to offset costs, staff have been staying abreast of statewide options to collect data and have been working with vendors to understand where cost savings can be identified in the project components.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						150,000			150,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$150,000	\$0	\$0	\$150,000
FUNDING									
Current Revenue						150,000			150,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$150,000	\$0	\$0	\$150,000

**FIRE & EMERGENCY MEDICAL SERVICE APPARATUS SCHEDULES
2021 - 2027 Capital Improvement Program**

AMBULANCE REPLACEMENT SCHEDULE

Vehicle #	Description	Year	Use	Project Page #	Capital Reserve Page #	FY21	FY22	FY23	FY24	FY25	FY26	FY27
19A1	Ambulance	2016	EMS	39	24					285,000		
19A2	Ambulance	2012	EMS	39	24		260,000					
			TOTAL			\$0	\$260,000	\$0	\$0	\$285,000	\$0	\$0

FIRE APPARATUS REPLACEMENT SCHEDULE

Vehicle #	Description	Year	Use	Project Page #	Capital Reserve Page #	FY21	FY22	FY23	FY24	FY25	FY26	FY27
19B1	Brush Truck	2002	Fire	40	25	45,000						
19B2	Brush Truck	2003	Fire	40	25			45,000				
19T1	Tanker	2005	Fire	40	25		725,000					
19U1	Utility	2006	Fire	40	25			60,000				
19R1	Rescue	2010	Fire	40	25					756,396		
19E2	Engine	2013	Fire	40	25							
			TOTAL			\$45,000	\$725,000	\$105,000	\$0	\$756,396	\$0	\$0

2021 - 2027 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project Name: Ambulance Replacement

Project Number: 90000
 Physical Location: 31 Vernon Street
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Federal KKK-A-1822, NFPA 1917 and NH State Licensing and DOT Inspections
 Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E.: Establish Priorities

Departmental Objective: Ensure safety and reliability to staff and community with our fleet of ambulances



PROJECT DESCRIPTION/JUSTIFICATION

The Ambulance Capital Reserve is designed to provide adequate resources for the replacement of ambulances per a schedule that calls for replacement of one of the City's three ambulances every three years. The replacement schedule is reviewed annually and replacements advanced considering equipment condition.

The regular planned replacement of ambulances minimizes on-going maintenance costs, downtime, and a need to rely on other back-up services. Vehicle costs continue to increase as material and equipment costs continue to rise. Updates to national and state standards for ambulance requirements also impact costs. The replacement schedule for units during this CIP cycle includes replacement of 19A2 in FY22 and 19A1 in FY25.

This project is funded, wholly or in part, from the Ambulance Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 24 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition			260,000			285,000			545,000
Other									0
TOTAL	\$0	\$0	\$260,000	\$0	\$0	\$285,000	\$0	\$0	\$545,000
FUNDING									
Current Revenue									0
Capital Reserve			260,000			285,000			545,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$260,000	\$0	\$0	\$285,000	\$0	\$0	\$545,000

2021 - 2027 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project Name: Apparatus Replacement

Project Number: 90003

Physical Location: 31 Vernon Street

Project Status: Ongoing CIP

Federal / State Regulation or Law: Annual Certifications / Annual DOT Inspections

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E.: Establish Priorities

Departmental Objective: Ensure Safety and Reliability to Staff and Community



PROJECT DESCRIPTION/JUSTIFICATION

The Fire Apparatus Replacement Reserve is designed to provide adequate funds to replace or rebuild the fire apparatus as scheduled in the replacement plan. The fund can also be used periodically for major repairs to fire apparatus including the replacement of engines and transmissions. This fund has been used successfully for many years to ensure the availability of funds when the purchase of fire apparatus is required.

Fire service responsibilities and equipment carried to meet our mission, continue to evolve. To ensure a timely replacement of fire apparatus, and to meet current NFPA standards related to fire apparatus replacement, the current schedule was developed. The overall schedule is reviewed annually with a review of current apparatus readiness, repairs, and maintenance. The replacement schedule allows for new safety technology, the ergonomics, structural integrity of vehicles, compliance with NFPA 1901, NFPA 1911 and NFPA 1915 standards. This schedule also assures reliability to provide the best service to the community and the safety of our personnel. The need for reliable apparatus is a critical component of fire protection within the City. The apparatus that serves us today, much like your vehicles, is much more complex with varying systems. The emission systems as an example, that are required on our apparatus, have led to increased maintenance and downtime of units. This fund provides resources that will allow the City to replace all apparatus at the appropriate time assuring a reliable fleet.

This project is funded, wholly or in part, from the Fire Apparatus Replacement Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 25 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition		45,000	725,000	105,000		756,396			1,631,396
Other									0
TOTAL	\$0	\$45,000	\$725,000	\$105,000	\$0	\$756,396	\$0	\$0	\$1,631,396
FUNDING									
Current Revenue									0
Capital Reserve		45,000	725,000	105,000		756,396			1,631,396
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$45,000	\$725,000	\$105,000	\$0	\$756,396	\$0	\$0	\$1,631,396

2021 - 2027 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project Name: W Keene Fire Station Study

Project Number: 90312-19

Physical Location: 110 Hastings Ave

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide emergency response



PROJECT DESCRIPTION/JUSTIFICATION

Currently, the West Keene Fire Station is located at 110 Hastings Avenue. It occupies a facility reacquired in early 2018 by the City of Keene from the State of NH Adjutant General's Office (NHARNG) following a determination that the facility was no longer needed to meet their mission. City staff under the direction of the City Manager has worked in FY19-20 on a two-phase approach assessing the current facility. Phase I review has analyzed four years of response and incident data, target hazards, water supplies, future growth and or possibly other locations for Station 2. It is expected that the Phase I review will be completed in December 2019 and be reported out to the City Council with a recommendation to either maintain the current facility at its current location or consider another site based on the findings. The FY22 funds will be used to conduct the Phase II review of the current structure and the feasibility review to determine if it's more cost-effective to renovate and or replace the facility. A review of current and future space needs, the status of utilities/building systems, overall building condition would be assessed, and conceptual floor space and building drawings completed.

The FY22 funds requested would allow the start of architectural drawings (to renovate current or build a new facility) for the project. This work will provide a better understanding of what the budget needs of the future project may be so that future CIP funding request could be submitted.

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design	20,000		50,000						70,000
Construction / Implementation									0
Property/Equip. Acquisition									0
Other									0
TOTAL	\$20,000	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$70,000
FUNDING									
Current Revenue			50,000						50,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other - Project Balance	20,000								20,000
TOTAL	\$20,000	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$70,000

2021 - 2027 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project Name: Self-Contained Breathing Apparatus

Project Number: 90208-24

Physical Location: Fire Department

Project Status: Ongoing CIP

Federal / State Regulation or Law: OSHA 42 CFR Respiratory Protection Devices, NFPA 1981

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E: Establish Priorities

Departmental Objective: Emergency Preparedness and Personnel Safety



PROJECT DESCRIPTION/JUSTIFICATION

Firefighter respiratory protection is critical for firefighters' safety and to be able to enter toxic atmospheres for the protection of life and property. Toxic atmospheres related to building fires, hazardous materials incidents, and oxygen-deficient atmospheres require the use of self-contained breathing apparatus to protect our staff. The service life of our units expires in FY24, at which time the units will be 15 years old. This project is required to maintain compliance and certification with The National Institute for Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA) Code of Federal Regulations 42 CFR Part 84 Respiratory Protective Devices and NFPA 1981 Standard for Self-Contained Breathing Apparatus.

The Self-Contained Breathing Apparatus (SCBA) Project will replace 60- SCBAs; 120- face pieces; 95- SCBA bottles (30 minutes); 10- SCBA bottles (60 minutes); and 4- Rapid Intervention SCBA. The units will meet the NFPA 1981 Standards for Breathing Apparatus and all OSHA 42 CFR requirements.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition					750,000				750,000
Other - Debt Issuance					5,000				5,000
TOTAL	\$0	\$0	\$0	\$0	\$755,000	\$0	\$0	\$0	\$755,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded					755,000				755,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$755,000	\$0	\$0	\$0	\$755,000

2021 - 2027 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project Name: SCBA Fill Station

Project Number: 90208-27

Physical Location: 31 Vernon Street, 110 Hastings Avenue

Project Status: New Project

Federal / State Regulation or Law: OSHA and NIOSH Testing for breathing air

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E.: Establish Priorities

Departmental Objective: Emergency preparedness and personnel safety



PROJECT DESCRIPTION/JUSTIFICATION

Currently, the department has two SCBA (Self-Contained Breathing Apparatus) compressor fill stations located at the Central Station and Station 2. These units are used to fill our SCBA bottles on a daily basis. The SCBA units are used to enter toxic areas and also during training required to remain proficient and component with the equipment. The compressor/fill station and cascade system at the Central Stations are used not only to fill bottles but also to fill our mobile bottle systems on two of our apparatus. The system at the Central Station was purchased late in 2012 through a grant, the Station 2 system was purchased in 2005 also through a grant. The department will work to try and secure grant funding for one, if not both, units. The replacement of each system would be in FY27-28. Each unit requires annual maintenance and testing of the air quality. The funds requested would replace both systems.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition								85,000	85,000
Other									0
TOTAL	\$0	\$85,000	\$85,000						
FUNDING									
Current Revenue								85,000	85,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$85,000	\$85,000						

2021 - 2027 Capital Project Funding Request Fire



GENERAL PROJECT DATA

Project Name: Hydraulic Rescue Tools

Project Number: TBD

Physical Location: 31 Vernon Street

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Maintaining a Safe Community

V.O.I.C.E: Establish Priorities

Departmental Objective: Ensure safety and reliability to staff and community



PROJECT DESCRIPTION/JUSTIFICATION

The department currently has one brand (HURST) of hydraulic and electric rescue tools used for vehicle extrication, building collapse and machinery incidents. This allows for interoperability with tools on the various or apparatus. The equipment is serviced and pressure tested annually following the NFPA 1937 Standard. The new equipment will have higher cutting strengths and spreading power that will aid us in the extrication of people from newer vehicles. The lifespan of the equipment was estimated to be 15-20 years. The current equipment ranges in age from 10 to 16 years old.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition								60,000	60,000
Other									0
TOTAL	\$0	\$60,000	\$60,000						
FUNDING									
Current Revenue								60,000	60,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$60,000	\$60,000						

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Patricia T. Russell Park

Project Number: 90316-20

Physical Location: Carpenter Street

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Healthy Living

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation #3 Determine the best and most appropriate uses of each park and whether they should be repurposed or reconfigured to maximize their service to the community



PROJECT DESCRIPTION/JUSTIFICATION

Patricia T. Russell Park, located outside the downtown footprint along Beaver Brook and the Cheshire Rail Trail, plays a significant role in restoring recreational opportunities to the east side of the City. Through a public process of meetings and online discussion boards with the Conway School of Landscape Design, a definitive statement from the community highlighted that the park needs to be developed for multi-generational use to create a safe place for recreation. Specific design elements include a playground, multiple seating opportunities, walking trail, parking, pavilion, vegetated buffer along the brook, connection to the rail trail, and an athletic field. The field would remain the centerpiece of the park and would require a delineated pitch to improve the storm drainage back to Beaver Brook. These enhancements to the field will provide a quality turf experience for the multiple user groups that currently utilize the field.

The vision for this project will create a valuable asset for the east side and the entire community. In 2020, the design phase will kick off a yearlong process toward development through a steering committee and multiple opportunities for public engagement. In addition to City support, funding through grants will be sought through various local, state and federal resources.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			1,275,000						1,275,000
Property/Equip. Acquisition									0
Other - Debt Issuance			8,000						8,000
TOTAL	\$0	\$0	\$1,283,000	\$0	\$0	\$0	\$0	\$0	\$1,283,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded			1,283,000						1,283,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$1,283,000	\$0	\$0	\$0	\$0	\$0	\$1,283,000

MUNICIPAL PARKS IMPROVEMENTS

In 2012, the City adopted the Active and Passive Recreation Management Plan which outlined the need to create a comprehensive capital improvement program. In addition, in 2013 the City hired EMG Corporation to perform a survey of all City facilities. The survey provides an organized management tool for the City to maintain and improve its facilities. The report reflects the present condition and the expected life of various system components. Combined these two documents provided a prioritization for projects needing to be placed in the CIP cycle:

0	Location	Scope of Work	Estimated Cost	Total Cost for Fiscal Year
2021	Wheelock Park	Pool Improvements	\$50,000	\$50,000
2022	Robin Hood Park	Playground Building Improvements	\$35,000	\$50,000
	Water Street	Resurfacing Basketball Courts	\$15,000	
2023	Wheelock Park	Ball Field Fencing	\$28,500	\$75,000
	Wheelock Park	Tennis Court Resurfacing	\$9,000	
	Robin Hood Park	Tennis Court Resurfacing	\$18,500	
	Legion fields	Restroom Improvements	\$4,000	
	Wheelock Park	Restroom Improvements	\$15,000	
2024	Wheelock Park	Replace Playground Structure	\$40,000	\$75,000
	Robin Hood Park	Playground Building Roof	\$35,000	
2025	Robin Hood and Wheelock	Pool Resurfacing	\$90,000	\$90,000
2026	Robin Hood and Wheelock	Replace Pool Roofs	\$75,000	\$75,000
2027	Wheelock Park	Playground Building Improvements	\$25,000	\$75,000
		Replace Playground Structure	\$50,000	
2028	Fuller Park	Replace Playground Structure	\$75,000	\$75,000
2029	Wheelock Park	Maintenance Building/Restroom Improvements	\$75,000	\$75,000
2030	Wheelock	Hockey Rink Improvements	\$15,000	\$75,000
		Replace Playground Structure	\$60,000	

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Municipal Park Improvements

Project Number: 90318-ZZ
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Healthy Living

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation # 4 - Develop a comprehensive capital equipment and park asset replacement plan



PROJECT DESCRIPTION/JUSTIFICATION

The parks' system within the City of Keene has aged well with a high level of attentive maintenance. Now, almost 60 years later, most of the facilities need attention beyond routine maintenance or need to be replaced. In 2012, the City adopted the Active and Passive Recreation Management Plan, which outlined the need to create a comprehensive capital improvement plan. This plan resulted in park-specific projects including the Patricia T. Russell Park Project, the Skate Park, pool filters, and pool and tennis court resurfacing. These projects have been planned or implemented. However, the need for routine maintenance on many park features is not only recommended but also needed, especially given the climate of New Hampshire.

The City of Keene identifies itself as having well-maintained parks and trails for all ages to enjoy. To continue this level of service, necessary improvements need to be met to maintain a community that is attractive for those who want to live, work, and play in the city. A prioritization plan has been put forth based on routine and needed maintenance. In addition to the 2012 Management Plan, in 2013 the EMG report provided a blueprint for the park and cemetery facilities. These recommendations were also integrated into the project schedule. As part of the FY20 CIP, Durling Field will have new outfield fencing and foul poles, updated public ADA compliant restrooms at the old Wheelock maintenance facility, and pool facility improvements will be made in the spring of 2020 and Fiscal Year 2021.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		50,000	50,000	75,000	75,000	90,000	75,000	75,000	490,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$50,000	\$50,000	\$75,000	\$75,000	\$90,000	\$75,000	\$75,000	\$490,000
FUNDING									
Current Revenue		50,000	50,000	75,000	75,000	90,000	75,000	75,000	490,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$50,000	\$50,000	\$75,000	\$75,000	\$90,000	\$75,000	\$75,000	\$490,000

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Campground Repurposed

Project Number: 90291-21
 Physical Location: Wheelock Park
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Healthy Living

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation #3 Determine the best and most appropriate uses of each park and whether they should be repurposed or reconfigured to maximize their service to the community



PROJECT DESCRIPTION/JUSTIFICATION

In advance of the summer of 2018, following discussions with the Municipal Services, Facilities and Infrastructure committee, Wheelock Park camping was re-aligned to be offered as an option available in conjunction with bookings of other park facilities for multi-day events. Camping by the general public was not supported during the 2018 and 2019 seasons, due to a need to re-evaluate current and future needs, today's camping demographics, operating, and infrastructure conditions. When opened in the early 1960's, with the support of a local camping association, the facility served as a camping location for those passing through the region to stay a few days. However, campers—and their expectations— have evolved, and the amenities and infrastructure provided by the City's 1960 style facility have limited appeal to modern campers.

In recent years, minimal public pass-through traffic negatively influences the development of a business case that would support significant infrastructure investment to continue public operation as a viable option in today's marketplace. As a business operation, direct revenues associated with camping provided in conjunction with the Keene Horseshoe Club's annual tournament are the most significant and sustainable use. This additional amenity is an important component of this weekend event, the second-largest horseshoe tournament in the nation, generating considerable off-site economic impact within the City. However, in 2020, Vermont will be hosting the tournament. It will be the first time in over 25 years not held in Wheelock Park.

Adjusting the facility to support an event-based business model through this project responds to and supports current activity by creating a multi-use recreational area. The project would include removing out of date and decaying facilities, including the administration building and shed, as well as obsolete utilities supporting improved sites. An area to support "RV style" camping that includes basic campsites, and restrooms, will remain available for use in conjunction with other organized park focused activities.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		40,000							40,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000
FUNDING									
Current Revenue		40,000							40,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$40,000	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Open Space and Trails

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Trails & Bike Pathways

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation #12 - Improve the level of service in parks, facilities, trails, and open space



PROJECT DESCRIPTION/JUSTIFICATION

The open space and trails system in the City of Keene plays a vital role in maintaining the “work, live, and play” for the future of our community. Along with the well-built multi-use trails, Keene’s open space offers a significant resource to our culture and history. The Active and Passive Recreation Management Plan in key issue #3 identifies the need to manage and sustain our natural resources. The recommendation was to engage our community with additional outdoor and environmental activities. In 2018, the Conservation Commission moved forward with a Goose Pond Stewardship Plan. The plan highlights the need for an improved trail network in the greater Goose Pond forest. These recommendations will only increase the need for an asset management program to keep our resources well maintained and create opportunities across the city in our other natural areas. This project would focus on trail rehabilitation and maintenance needed across our current rail networks.

Additional funds would be sought through the State of NH Recreational Trails Grant program.

- 2023 – Trail improvements on Jonathan Daniels Trail, Goose Pond & rail trail clearing
- 2024 – Repave Appel Way
- 2025 – Trail Improvements in Greater Goose Pond Forest & rail trail clearing
- 2026 – Trail Improvements in Robin Hood Park and Beech Hill Preserve
- 2027 – Trail Improvements for the trail network

Since 2010, the City has made a cumulative investment of \$2,582,990.51

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				50,000	85,000	35,000	35,000	35,000	240,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$50,000	\$85,000	\$35,000	\$35,000	\$35,000	\$240,000
FUNDING									
Current Revenue				50,000	85,000	35,000	35,000	35,000	240,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$50,000	\$85,000	\$35,000	\$35,000	\$35,000	\$240,000

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Ashuelot River Dam Repair or Removal

Project Number: TBD

Physical Location: West St. / Ashuelot River Park

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Rehabilitate or remove the historic dam to comply with NH dam safety regulations



PROJECT DESCRIPTION/JUSTIFICATION

The Ashuelot River Dam near West Street is a stone masonry dam constructed prior to 1920. In 2009, the City received a letter of deficiency (LOD) from the NH Department of Environmental Services about safety and maintenance items to be addressed at the dam. The dam is classified by the Bureau as "Low Hazard", meaning its failure would not result in loss of life, but could damage some private property and roads with potential economic impacts. The issues at the dam include erosion, grading, tree clearing, seepage control, and repair of the low-level outlet gates at the dam. Some of those items were addressed at the time by City staff.

In 2011, the city hired a consultant to evaluate costs to repair the dam. The more extensive and expensive repairs were placed on hold at that time, due to a proposal by a private entity to rehabilitate the dam for hydroelectric power. After significant study and regulatory review, the entity has recently decided to abandon their project.

The City now needs to address the remaining issues identified in the 2009 LOD. The removal of the dam is also an option. The City will embark on a thorough public engagement process to determine the preferred alternative. Projected costs are estimated to be adequate to cover either repair or removal scenarios.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design					87,400				87,400
Construction / Implementation						495,300			495,300
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$87,400	\$495,300	\$0	\$0	\$582,700
FUNDING									
Current Revenue					87,400	495,300			582,700
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$87,400	\$495,300	\$0	\$0	\$582,700

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Robin Hood Dam Repairs

Project Number: 90201-24
 Physical Location: Robin Hood Park
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: RSA 482:12 and Env-Wr 300

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Repair the dam to comply with NH dam safety regulations



PROJECT DESCRIPTION/JUSTIFICATION

The Robin Hood Dam was reconstructed in 2013 to bring it into compliance with the NH Department of Environmental Services (NHDES) safety regulations. The dam is classified as "High Hazard", meaning its failure could result in loss of life and significant environmental and economic damage.

Since the dam was reconstructed, some items are in need of maintenance- most notably the erosion of the slope along the edges of the auxiliary spillway. The NHDES has identified other items in need of maintenance or repair, including an anchor for the spillway blocks, cracks in the mortar, and minor re-grading.

The mortar and anchor repair will be most effectively repaired by a specialized concrete contractor. While the eroded slope can be repaired by City staff, it will recur without modifications to the shape of the roadway across the dam. We believe that re-shaping the asphalt roadway to slope towards the pond will eliminate the concentrated flows that cause the erosion. The funding request will cover costs for roadway re-shaping, concrete repairs, and erosion repair.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation					83,200				83,200
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$83,200	\$0	\$0	\$0	\$83,200
FUNDING									
Current Revenue					83,200				83,200
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$83,200	\$0	\$0	\$0	\$83,200

2021 - 2027 Capital Project Funding Request

Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Transportation Heritage Trail

Project Number: TBD

Physical Location: Cheshire Rail Trail

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Trails & Bike Pathways

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation #12 Improve level of service in parks, facilities, trails, and open spaces



PROJECT DESCRIPTION/JUSTIFICATION

The Transportation Heritage Trail will be the next phase in the ongoing development of our existing Cheshire Rail Trail System. This section will begin at the terminus of the previously completed Industrial Heritage Trail (IHT). While the IHT celebrates Keene's history as an industrial and manufacturing hub, the Transportation Heritage Trail (THT) will pay homage to the evolution of transportation technology through the decades.

The central feature of this project will be the adaptive reuse of three historic bridges. To the west, the trail will reuse the Robert J. Prowse Memorial Bridge to cross NH Route 101. This bridge previously carried traffic over Interstate 93 in Londonderry and is being made available for reuse by the NHDOT. In the center, the trail will feature the existing Stone Arch Bridge, which will be rehabilitated with historically-appropriate railings. The City anticipates reusing our own Island Street Bridge (a Baily truss bridge) to carry the trail over Swanzey Factory Road. Along the trail, the historic bridges will form the context for educational signage and static displays related to the history of transportation and how transportation systems have shaped today's built environment.

In order to maximize our opportunity to seek out funding from various grant programs and contributions from non-profit organizations, the project will be completed in several phases. In 2025, we will construct a roadside trailhead off of Swanzey Factory Road and install safety railings on the Stone Arch Bridge. Funding in 2026 will allow the rail bed from Eastern Avenue to Rt. 101 to be improved and embankment on the north side of Rt. 101 to be prepared for the Prowse Bridge. In 2027, the historic Prowse Bridge will be relocated from temporary storage in Londonderry to its new home in Keene. The schedule outlined above will be contingent upon the availability of grant funds and private donations.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design					26,600				26,600
Construction / Implementation						225,200	583,200	1,729,500	2,537,900
Property/Equip. Acquisition									0
Other - Debt Issuance							3,800	10,500	14,300
TOTAL	\$0	\$0	\$0	\$0	\$26,600	\$225,200	\$587,000	\$1,740,000	\$2,578,800
FUNDING									
Current Revenue					26,600	225,200			251,800
Capital Reserve									0
Debt Funded							587,000	1,740,000	2,327,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$26,600	\$225,200	\$587,000	\$1,740,000	\$2,578,800

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Robin Hood Pool Improvements

Project Number: TBD

Physical Location: Robin Hood Park

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Healthy Living

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation # 4 - Develop a comprehensive capital equipment and park asset replacement plan



PROJECT DESCRIPTION/JUSTIFICATION

Gifted to the City in 1964 by the Keene Lions Club, the city pools have been a community summer fixture for over 50 years. Through the decades, regular maintenance to the filter systems, gutters and pool resurfacing have kept the pool operations in good working order. Despite these efforts, Robin Hood pool continues to be a challenge, and additional repairs were completed in the summer of 2019 through the operating budget due to the 2018 season of leaks and water replenishment issues. The City hired Weston and Sampson to provide a feasibility report that outlined current compliance and maintenance issues with estimates for repairs. This evaluation provided a framework that kept the pools compliant and in good working order for the near future. However, Robin Hood pool's sustainable longevity is not the same as Wheelock.

An estimate of \$3,860,400 was provided, with the understanding that the operations of the pool were to change significantly, in fact, be redesigned and rebuilt. Tests showed significant concerns with the integrity of the concrete pool shell, and major items within the footprint such as the decking, the bathhouse, an ADA compliant entrance from the parking lot, and general repairs to bring toward today's industry standards.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design								350,000	350,000
Construction / Implementation								3,378,116	3,378,116
Property/Equip. Acquisition									0
Other - Debt Issuance								21,884	21,884
TOTAL	\$0	\$3,750,000	\$3,750,000						
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded								3,500,000	3,500,000
Federal / State Grants									0
Other Sources								250,000	250,000
TOTAL	\$0	\$3,750,000	\$3,750,000						

2021 - 2027 Capital Project Funding Request Police



GENERAL PROJECT DATA

Project Name: Portable Radios

Project Number: 90123-19

Physical Location: 400 Marlboro Street

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To improve emergency and non-emergency operations for our first responders.



PROJECT DESCRIPTION/JUSTIFICATION

As part of the New Hampshire Radio Interoperability Program, all portable radios were last replaced by grant funded radios in 2006. The units for Keene were delivered in 2006. This replacement program will allow us to maintain emergency preparedness and personnel safety by having units that are reliable and serviceable as needed, for at least the next eight to ten years. The department currently operates and maintains sixty-three (63) portable radios. The goal was to replace all units over a three-year period unless grants or other funding becomes available to accelerate replacement. However, in CY 2019 we reexamined our need for total portable radios and have opted to go from 63 to 55. This provides a significant cost savings of approximately \$40,303.82 from that which had been budgeted at the start of this CIP

Cost is from an August 2019 Motorola quote adjusted 3% annually.

This project is funded, wholly or in part, from the Emergency Communication Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 28 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition		49,097							49,097
Other									0
TOTAL	\$0	\$49,097	\$0	\$0	\$0	\$0	\$0	\$0	\$49,097
FUNDING									
Current Revenue									0
Capital Reserve		39,301							39,301
Debt Funded									0
Federal / State Grants									0
Other - Project Balance		9,796							9,796
TOTAL	\$0	\$49,097	\$0	\$0	\$0	\$0	\$0	\$0	\$49,097

2021 - 2027 Capital Project Funding Request Police



GENERAL PROJECT DATA

Project Name: Dispatch Console Replacement

Project Number: TBD

Physical Location: 400 Marlboro Street

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Bring radio communications and dispatch services up to current hardware, software, and Internet Protocol standards.



PROJECT DESCRIPTION/JUSTIFICATION

The department employs a communication system that is comprised of essentially two parts; the radio system itself (transmitters, receivers, comparator, repeaters, antennas, etc.) and the dispatch electronics, which serve as the command and control for the entire radio system. The radio system portion was replaced in 2019; however, funding for the dispatch console equipment was not included in the original CIP for the radio system. The current dispatch console system, of which we have two identical systems, is more than 13 years old and works from outdated circuit-switched technology. During the review of our entire communication system by our contractor for the recent radio system replacement, they recommended that our dispatch console system be replaced with modern technology within the next few years to bring it up to current standards of hardware, software, and Internet Protocol (IP) technology as well as to interface and perform better with our new radio base station being installed. The vendor will no longer support the current dispatch system after December 31, 2021.

The current proposed equipment replacement would be the Motorola MCC 7500 dispatch console, which will also enhance the capabilities of the 2019 installed radio system. Given the advanced technology and design, this may also be the time to replace and redesign the dispatch station's physical attributes.

Cost is quoted from an August 2019 Motorola quote adjusted 3% annually.

This project is funded, wholly or in part, from the Emergency Communication Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 28 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition			233,486						233,486
Other									0
TOTAL	\$0	\$0	\$233,486	\$0	\$0	\$0	\$0	\$0	\$233,486
FUNDING									
Current Revenue									0
Capital Reserve			233,486						233,486
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$233,486	\$0	\$0	\$0	\$0	\$0	\$233,486

2021 - 2027 Capital Project Funding Request Police



GENERAL PROJECT DATA

Project Name: Mobile Radio Replacement

Project Number: TBD

Physical Location: 400 Marlboro Street

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain currency of critical equipment on a financially and technologically supported basis and to improve our emergency and non-emergency operations for our first responders.



PROJECT DESCRIPTION/JUSTIFICATION

The department currently employs 24 mobile radios in our vehicles and maintains 3 spares. Only 1 of those 27 systems is a current vendor supported radio, the other 26 are out of date, are of an unknown age range, and no longer supported by the vendor for service or parts. Mobile radios provide the means to communicate from vehicle to vehicle, vehicles to portables, as well as being our connection to the dispatch center. The mobile radios are much stronger wattage, allowing personnel to reach each other, and dispatch, from anywhere in the City, and beyond. Without mobile radios, we would not be able to communicate effectively within the entire City, nor outside the City limits as is sometimes needed during pursuits or Mutual Aid to other Municipalities. Modern mobile radios are also the core of our siren and public address cruiser systems, with these built into the radio system. If a cruiser does not have a working mobile police radio it is considered out of service. Cost is from an August 2019 Motorola quote adjusted 3% annually.

This project is funded, wholly or in part, from the Emergency Communication Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 28 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition				45,638	47,007	48,417			141,062
Other									0
TOTAL	\$0	\$0	\$0	\$45,638	\$47,007	\$48,417	\$0	\$0	\$141,062
FUNDING									
Current Revenue									0
Capital Reserve				45,638	47,007	48,417			141,062
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$45,638	\$47,007	\$48,417	\$0	\$0	\$141,062

2021 - 2027 Capital Project Funding Request Police



GENERAL PROJECT DATA

Project Name: EXACOM Hindsight System Replacement/Refresh

Project Number: TBD

Physical Location: 400 Marlboro Street

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain currency of equipment in required recordings of telephone and radio communications.



PROJECT DESCRIPTION/JUSTIFICATION

The EXACOM Hindsight system records all telephone and radio traffic in and out of the Department. This is necessary for dispatchers to immediately replay telephone calls or radio transmissions that were either missed or garbled and from which they need more information. It also provides an element of Officer Safety, as dispatchers can relisten to a call if they cannot reach the calling Officer. The system comes with a six-year service agreement that EXACOM does not extend past the six years but rather requires a replacement/refresh of the system in order to continue to support the system. This replacement/refresh ensures we are operating with the latest equipment and software. This system, or a similar system, is required as part of our National Accreditation (CALEA 81.2.8). Our current system was installed in April 2014. This is an item that should be replaced/refreshed every six years as the manufacturer suggests. The below cost is from an 8/20/19 quote with the appropriate percentage added for FY27.

This project is funded, wholly or in part, from the Emergency Communication Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 28 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition								35,000	35,000
Other									0
TOTAL	\$0	\$35,000	\$35,000						
FUNDING									
Current Revenue									0
Capital Reserve								35,000	35,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$35,000	\$35,000						

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INTERNAL SUPPORT (GENERAL FUND)

Services that the City provides to support its own internal operations. Departments include assessing, finance, information technology, and facilities whose primary goal and focus are to maintain the City's structures and operational assets in good working condition, in an environmentally friendly, and economically efficient manner.

Description	Page
Assessing	
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Facilities	
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• Phone System Replacement	75

2021 - 2027 Capital Project Funding Request Assessing



GENERAL PROJECT DATA

Project Name: Revaluation

Project Number: 90098-21
 Physical Location: City-Wide
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: RSA 75:8-a

Master Plan (CMP) Focus Area: Vibrant Economy
 CMP Vision/Strategy: Municipal Governance & Financial Stability

V.O.I.C.E.: N/A

Departmental Objective: To ensure the fair and equitable taxation of all property within the City of Keene in accordance with New Hampshire law



PROJECT DESCRIPTION/JUSTIFICATION

A revaluation of all property in the City is required by state law at least once every five years. The City was last revalued in 2016 which means that it will be required again in 2021. The project will begin in 2020 and will be completed by the fall of 2021. The new assessments will be used to determine the final 2021 tax bills.

A revaluation involves a number of steps and processes in order to develop valuation models and assessed values. These include, but are not limited to: extensive market research; reviewing and analyzing property transactions; reviewing building construction costs; and reviewing all property data on file. Additionally, for income-producing properties, research and analysis are done on rental income, typical expenses, and investment rates. Upon completion, many valuation variables will be developed, calibrated, and applied to all properties before finalizing the valuation process. The new assessed values will be statistically tested for accuracy and equity.

This project is funded, wholly or in part, from the Reappraisal Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 30 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		82,500	82,500				85,000	85,000	335,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$82,500	\$82,500	\$0	\$0	\$0	\$85,000	\$85,000	\$335,000
FUNDING									
Current Revenue									0
Capital Reserve		82,500	82,500				85,000	85,000	335,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$82,500	\$82,500	\$0	\$0	\$0	\$85,000	\$85,000	\$335,000

MUNICIPAL BUILDING IMPROVEMENTS

In 2013, the City hired EMG Corporation to perform a survey of all City facilities. The survey provides an organized management tool for the City to maintain and improve its facilities. The report reflects the present condition and the expected life of various system components. The City prioritized the following projects for the current CIP cycle:

Year	Location	Scope of Work	Estimated Cost	Total Cost for Fiscal Year
2021	Multiple Facilities	Replace carpet and flooring	\$20,000	\$100,000
	Recreation Center	Refurbish 1 st floor public restrooms	\$20,000	
	City Hall	Prep and paint exterior of building trim work	\$40,000	
		Held in reserve for new priorities	\$20,000	
2022	Public Works building	Replace VCT flooring	\$20,000	\$100,000
	City Hall	Upgrades and refurbish hydraulics on elevator City Hall	\$30,000	
	Central Fire Station	Overhaul garage doors	\$30,000	
	Parks and Recreation Center	Replace generator	\$20,000	
2023	Public Works building	Replace EPDM roof over Admin	\$76,000	\$100,000
		Held in reserve for new priorities	\$24,000	
2024	Parks and Recreation Center	Replace boilers two (2) with 2 condensing high efficiency gas boilers	\$80,000	\$100,000
		Held in reserve for new priorities	\$20,000	
2025	City Hall	Asbestos removal 1 st floor IT area in ceilings new ceiling grid, to include new flooring upon completion	\$40,000	\$100,000
	Central Fire Station	Resurface apparatus floors	\$30,000	
		Held in reserve for new priorities	\$30,000	
2026	Library	Prep and paint exterior trim	\$20,000	\$100,000
	City Hall	Asbestos removal 1 st floor clerks area in ceilings, new ceiling grid, to include new flooring upon completion	\$75,000	
		Held in reserve for new priorities	\$5,000	
2027	City Hall	Repoint Brickwork	\$62,000	\$100,000
	Public Works building	Replace hot water tank/pumps	\$22,000	
		Held in reserve for new priorities	\$16,000	
2028	City Hall	Replace 4 th floor rooftop package unit HVAC system gas	\$25,000	\$100,000
	Parks and Recreation Center	Replace PVC roof system over Multipurpose room	\$45,000	
		Held in reserve for new priorities.	\$30,000	
2029	Central Fire Station	Repoint brickwork	\$30,000	\$100,000
	Police Department	Replace rooftop package HVAC unit gas heat, 20 ton cooling	\$35,000	
		Held in reserve for new priorities	\$35,000	

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Municipal Building Improvements

Project Number: 90280-ZZ
 Physical Location: Administration
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Some

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Community Sustainability

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain safe buildings



PROJECT DESCRIPTION/JUSTIFICATION

The Facilities Survey conducted by EMG Corporation in 2013 has provided an organized management tool for the division to utilize in an effort to maintain and address principal systems. The report reflects the present condition and the expected life of the systems' components. Through an annual review of the process of the EMG report, the identification of the project life cycles can be determined. The process will constantly alter and reprioritize the improvements among all City facilities. Projects already identified at City Hall, the Municipal Services Complex, the Recreation Center, and the Police Department will focus on updates that improve efficiencies in the energy and heating consumption. In the future, the Municipal Services Complex will need heat pumps replaced and the Recreation Center will need a new boiler system.

In FY 2020, the priority will be the replacement of carpet and flooring in multiple facilities including the replacement of the VCT tile in the multipurpose room at the Recreation Center.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$100,000	\$700,000						
FUNDING									
Current Revenue		100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$100,000	\$700,000						

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Commercial Improvements

Project Number: TBD

Physical Location: Gilbo Avenue

Project Status: Ongoing CIP

Federal / State Regulation or Law: Some

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E.: Value Everyone

Departmental Objective: Provide safe and accessible public facilities



PROJECT DESCRIPTION/JUSTIFICATION

In 1976, the City of Keene's Transportation Center opened for business and has served the downtown with various operations of commercial space and public restrooms ever since. For decades, the building served as a regional transportation hub for bus line services. Today, the location serves as a bus stop, with tickets available at the nearby Corner News, and three small commercial spaces occupied by various tenants. In May 2018, a group of concerned citizens approached the MSFI Committee regarding the need to revisit having public restrooms in the downtown footprint. In 2011, the City closed the restrooms as a result of ongoing vandalism and crime. These actions by the public moved the City to close the facility and repurpose the space for commercial rental opportunities.

In late 2018, MEDC brought forward a concept of an Arts and Culture Corridor, this initiative would provide a revitalization of Gilbo Avenue through public spaces, housing, art studios, pop-up venues, skate park, farmers market, and various economic initiatives to invigorate the downtown with an art-based focus. Included in the process will be commercial space revitalization of the Transportation Center, which could include public restrooms and a welcome center. This project is a reflection should the MEDC project not move from concept to construction, the City can improve the commercial spaces.

This project is funded, wholly or in part, from the Downtown Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 27 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			134,000						134,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$134,000	\$0	\$0	\$0	\$0	\$0	\$134,000
FUNDING									
Current Revenue									0
Capital Reserve			134,000						134,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$134,000	\$0	\$0	\$0	\$0	\$0	\$134,000

2021 - 2027 Capital Project Funding Request

Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Municipal Building Roofs

Project Number: TBD

Physical Location: Administration

Project Status: Ongoing CIP

Federal / State Regulation or Law: Some

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Community Sustainability

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain safe buildings



PROJECT DESCRIPTION/JUSTIFICATION

The facilities survey conducted by EMG Corporation in 2013 has provided an organized management tool for the division to utilize in an effort to maintain and address principal systems. The report reflects the present condition and the expected life of the systems' components. Through an annual review of the process of the EMG report, the identification of the project life cycles can be determined. One area that needs attention is the roofs located at the municipal complex. Recent inspections have determined it to be the proper time to plan on the replacement of these roofs. Facilities will continue to monitor conditions and recommend any adjustments to the schedule. The roofs will be prepped for potential solar panels in the future. This would also increase the insulation level to today's standards for better efficiency.

FY23 Keene Police Station located at 400 Marlboro St.-roof was replaced 1998;

FY24 DPW garage roof was last replaced 1995;

FY25 City Hall 4th floor roof-estimated installation date was 1988;

FY26 Recreation Center multiple roofing areas varying ages from 1990-1994;

FY27 Airport Terminal building installed 1993;

Another roof that will need attention in the coming years that is at the end of its life cycle is the library (installed 1990 est. cost \$118,000) with a current condition of fair.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				450,475	91,620	86,945	117,000	95,688	841,728
Property/Equip. Acquisition									0
Other - Debt Issuance				3,525					3,525
TOTAL	\$0	\$0	\$0	\$454,000	\$91,620	\$86,945	\$117,000	\$95,688	\$845,253
FUNDING									
Current Revenue					91,620	86,945	117,000	95,688	391,253
Capital Reserve									0
Debt Funded				454,000					454,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$454,000	\$91,620	\$86,945	\$117,000	\$95,688	\$845,253

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Reinsulate Ductwork Central Fire Station

Project Number: 90220-21
 Physical Location: Vernon St
 Project Status: New Project
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Healthy Living

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain safe buildings



PROJECT DESCRIPTION/JUSTIFICATION

Through investigations and evaluation by local contractors, it has been determined that the ductwork throughout the Central Station needs to be sealed and re-insulated to prevent ductwork from sweating. The sweating is causing ceiling tile damage, staining, and could potentially lead to mold issues. To accomplish this work, we need to remove the existing insulation and properly seal ductwork, and then re-insulate.

Cost to remove insulation, seal ductwork, seal wall penetrations, and re-insulate to current standards is estimated at \$82,136.00. To perform this work the current suspended ceiling will need to be removed and then reinstalled at an estimated additional cost of \$25,000.00.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		107,136							107,136
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$107,136	\$0	\$0	\$0	\$0	\$0	\$0	\$107,136
FUNDING									
Current Revenue		107,136							107,136
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$107,136	\$0	\$0	\$0	\$0	\$0	\$0	\$107,136

2021 - 2027 Capital Project Funding Request

Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Recreation Center Renovation

Project Number: TBD

Physical Location: 312 Washington Street

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Healthy Living

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Master Plan Recommendation #3 Determine the best and most appropriate uses of each park and whether they should be repurposed or reconfigured to maximize their service to the community



PROJECT DESCRIPTION/JUSTIFICATION

During the Feasibility Study in 2017, the multipurpose room was the center of focus on expansion or reconfiguration to serve a dual purpose with the proposed Keene Senior Center. In fiscal year 2020, the floor in the multipurpose room was to be resurfaced. During this process, an extensive investigation was conducted as to the condition of the floor. The floor appears to have been insulated when the last renovations took place in 1987, but due to the lack of space below the floor, it could not be fully insulated. Investigations demonstrate that no vapor barrier was ever put in place causing moisture to rise preventing the floor from properly adhering.

The multipurpose room serves as a true community space, hosting programs from square dancing, archery, taekwondo, craft fairs, and a municipal polling location, just to name a few. This room was the original Armory gymnasium and was kept during the 1987 renovation to provide much-needed space.

Because of the various evaluations, this provides the City the opportunity to conduct a schematic design and cost estimate to renovate the room. This includes improving the lobby and bringing the public restrooms up to current ADA standards. The boilers are scheduled for replacement in 2024 (if not sooner based on age); the ability to heat the multipurpose room in the colder months is difficult at best, as the walls have no insulation and windows are in poor condition, and the flooring needs proper installation. The City promotes green energy and conservation; the opportunity to provide a model for energy efficiencies and create a more sustainable facility can be addressed through the renovation.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design					191,250				191,250
Construction / Implementation					1,275,000				1,275,000
Property/Equip. Acquisition									0
Other - Debt Issuance					8,750				8,750
TOTAL	\$0	\$0	\$0	\$0	\$1,475,000	\$0	\$0	\$0	\$1,475,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded					1,475,000				1,475,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$1,475,000	\$0	\$0	\$0	\$1,475,000

2021 - 2027 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project Name: Paving Parking Lots

Project Number: TBD

Physical Location: Multiple

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain function of parking at facilities



PROJECT DESCRIPTION/JUSTIFICATION

The City of Keene owns many facilities and associated parking lots used by various departments. Over the years a combination of vehicular use, cold and wet weather, and snowplows have affected the condition of the lots. The damages accelerate once moisture enters the pavement base through cracks and then freezes. In order to improve the function of the lots and reduce the long-term maintenance costs for patching and crack-sealing, rehabilitation is necessary. Rehabilitation of the lots will include milling the existing asphalt surface, performing spot repairs as needed, leveling low points, overlaying with new asphalt, and re-striping. Existing granite curbs that are damaged or out of alignment will be repaired or replaced. Existing bituminous curb will be replaced. The existing sidewalks will be evaluated and rehabilitated in kind. Department of Public Works will have drainage issues addressed at this time. We will also replace existing pole lighting with new Dark Sky compliant LED fixtures, and add infrastructure for an EV charging station to lots.

Rehabilitation of the Department of Public Works lot is scheduled for FY26.

Rehabilitation of the Keene Recreation Center lot is scheduled for FY27.

Additional lots will be scheduled for future years.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation							350,000	126,676	476,676
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$350,000	\$126,676	\$476,676
FUNDING									
Current Revenue							350,000	126,676	476,676
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$350,000	\$126,676	\$476,676

2021 - 2027 Capital Project Funding Request Finance



GENERAL PROJECT DATA

Project Name: Financial Software Replacement

Project Number: 90008
 Physical Location: City Hall
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership
 CMP Vision/Strategy: Municipal Governance & Financial Stability

V.O.I.C.E.: N/A

Departmental Objective: Maintain, update or replace financial management technology to current standards



PROJECT DESCRIPTION/JUSTIFICATION

The financial accounting and reporting package used by the City was purchased in 1997-98 and implemented in 1998-99. The package covers many basic municipal financial functions, including general ledger accounting, payroll, accounts payable, accounts receivable, purchasing, project accounting, utility (water and sewer) billing, property tax billing, cash receipting, personnel budgeting, and budget preparation. The package has been upgraded over time to add new functionality with the last upgrade for a new property tax billing module and finance system upgrade completed in 2017 at a cost of \$190,000.

The current financial software has served the City well for over 20 years but a review of City business practices and needs, as well as a review of financial software to meet those needs, should be scheduled. Funding is requested in FY 2024 for an organization-wide financial system needs analysis, with software selection, acquisition, and implementation scheduled for FY 2026, should replacement be the chosen course of action. A preliminary cost estimate of \$615,000 has been developed for planning purposes.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design					30,000				30,000
Construction / Implementation									0
Property/Equip. Acquisition							615,000		615,000
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$30,000	\$0	\$615,000	\$0	\$645,000
FUNDING									
Current Revenue					30,000		615,000		645,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$30,000	\$0	\$615,000	\$0	\$645,000

2021 - 2027 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project Name: Database Software

Project Number: TBD

Physical Location: IT Data Center

Project Status: Ongoing CIP

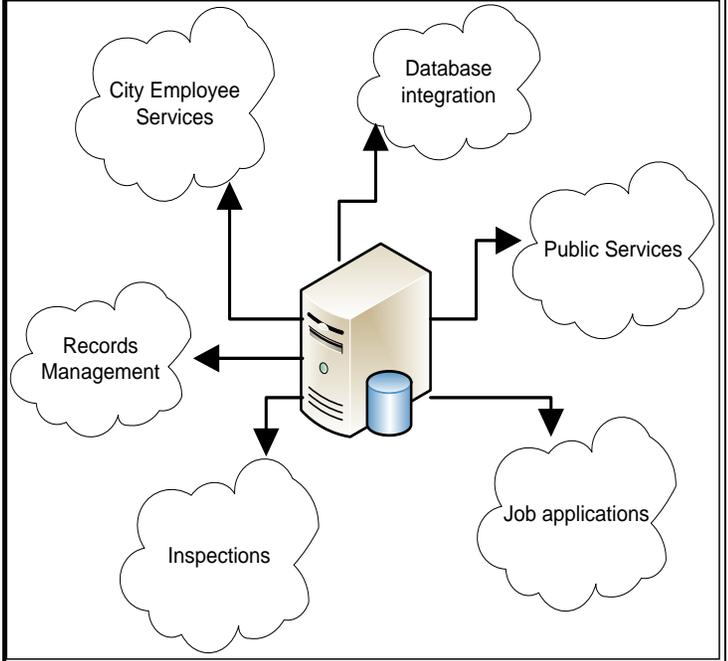
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Required to maintain database integration, integrity, and availability in accordance with department mission



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funding to upgrade and migrate database platforms as necessary to meet minimum licensing requirements and/or adopt new platforms to sustainably accommodate operational and financial requirements into the long term. In particular, the database platform(s) supporting financial, property assessment, and work order management information systems that drive functions such as tax billing, fund accounting, payroll, infrastructure management, etc. require consistent upgrades over time to avoid costly obsolescence. These systems also provide foundational property information to other City systems and broad reporting and business intelligence information necessary to drive management decisions.

In addition to database requirements, it is also important that server specifications match database licensing requirements which can present the need to upgrade or migrate the database environment in sync with server upgrades over time. This is why this project is aligned with the replacement of the financial system server.

This project is funded, wholly or in part, from the Information Technology Systems and Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 29 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			5,000						5,000
Property/Equip. Acquisition			75,000						75,000
Other									0
TOTAL	\$0	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$80,000
FUNDING									
Current Revenue									0
Capital Reserve			80,000						80,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$80,000	\$0	\$0	\$0	\$0	\$0	\$80,000

Schedule of Network Equipment Replacement

Building	Type	End of life(sale)	End of Maintenance	End of Support	Replacement Cost	FY Subtotal
Fleet	24 port switch	Nov-14	Nov-16	Nov-20	\$2,500	FY21
Recycling Ctr (Public Works)	24 port switch	Nov-14	Nov-16	Nov-20	\$2,500	
Fire Station 2	24 port switch	Nov-14	Nov-16	Nov-20	\$2,500	
Wastewater	24 port switch	Nov-14	Nov-16	Nov-20	\$2,500	
350 Marlboro (Public Works)	48 port switch	Nov-14	Nov-16	Nov-20	\$3,500	
350 Marlboro (Public Works)	48 port switch	Nov-14	Nov-16	Nov-20	\$3,500	
Parks and Rec	48 port switch	Nov-14	Nov-16	Nov-20	\$3,500	
Keene Public Library	48 port switch	Nov-14	Nov-16	Nov-20	\$3,500	
Keene Public Library	48 port switch	Nov-14	Nov-16	Nov-20	\$3,500	
Airport	48 port switch	Nov-14	Nov-16	Nov-20	\$3,500	
Wastewater	48 port switch	Oct-15	Oct-17	Oct-21	\$6,500	FY22
						\$6,500
Fire Station 2	Router	Apr-16	Oct-17	Oct-21	\$2,500	FY23
Wastewater	Router	Apr-16	Oct-17	Oct-21	\$2,500	
Parks and Rec	Router	Apr-16	Oct-17	Oct-21	\$2,500	
Water Treatment	Router	Apr-16	Oct-17	Oct-21	\$2,500	
Recycling Ctr (Public Works)	Router	Apr-16	Oct-17	Oct-21	\$2,500	
Keene Public Library	Router	Apr-16	Oct-17	Oct-21	\$2,500	
Fire Central Station	Router	Apr-16	Oct-17	Oct-21	\$2,500	
Airport	Router	Apr-16	Oct-17	Oct-21	\$2,500	
City Hall	Router	Apr-16	Oct-17	Oct-21	\$2,500	
400 Marlboro (Police)	Router	Apr-16	Oct-17	Oct-21	\$2,500	
						FY24
						TBD
						FY25
						TBD
						FY26
						TBD
						FY27
						TBD

\$62,500

2021 - 2027 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project Name: Network Equipment Replacement

Project Number: 90144
 Physical Location: Multiple Facilities
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A
 Master Plan (CMP) Focus Area: N/A
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Required to provide network, phone, and computing services for all City departments



PROJECT DESCRIPTION/JUSTIFICATION

The network infrastructure presently enables City information systems to be centralized to maximize security and accessibility and minimize maintenance efforts. This involves wireless access points, cabling, and switches within each building, core equipment in the IT datacenters, and firewalls that secure traffic in and out of the City network. This equipment has a limited useful life. It is important that a plan be in place for the replacement of the equipment to ensure reliable operation and security, especially with cybersecurity threats at an all-time high. This plan calls for the replacement of the network equipment in the year the manufacturer will no longer provide maintenance and support services which typically ranges from five to ten years after purchase.

The City computer information systems are a mission-critical asset supporting essential business operations. The availability of these systems including our phone system depends upon reliable network availability and performance. Also, the network must be protected for the purposes of confidentiality and intrusion prevention. To meet the evolving requirements of the organizational use of information systems, the network equipment will require replacement when it reaches the manufacturer's end-of-service schedule. This will provide current security and control features that are necessary to keep up with minimum industry standards, and will minimize costly downtime in the case of equipment failure.

This project is funded, wholly or in part, from the Information Technology Systems and Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 29 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition		31,000	6,500	25,000					62,500
Other									0
TOTAL	\$0	\$31,000	\$6,500	\$25,000	\$0	\$0	\$0	\$0	\$62,500
FUNDING									
Current Revenue									0
Capital Reserve		31,000	6,500	25,000					62,500
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$31,000	\$6,500	\$25,000	\$0	\$0	\$0	\$0	\$62,500

Server Replacement Costs

Server Function	1st Replacement Date	Fiscal Year	Replacement Cost
APC Unit	7/1/2020	FY21	\$14,000
Virtual Server - Host - Finance	7/1/2021	FY22	\$9,000
Virtual Server - Host	7/1/2022	FY23	\$9,000
Exchange Licensing	7/1/2024	FY25	\$20,000
Virtual Server - Host	7/1/2024	FY25	\$9,000
Virtual Server - Host	7/1/2024	FY25	\$9,000
Virtual Server - Host	7/1/2024	FY25	\$9,000
Server OS Licensing	7/1/2025	FY27	\$45,000
Virtual Server - Host - Finance	7/1/2026	FY27	\$9,000

\$133,000

2021 - 2027 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project Name: Server Replacement

Project Number: 90182
 Physical Location: City Hall & Remote Data Center
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A
 Master Plan (CMP) Focus Area: N/A
 CMP Vision/Strategy: Infrastructure
 V.O.I.C.E.: Continually Assess Facilities and Infrastructure
 Departmental Objective: Required to provide software and computing services for all departments



PROJECT DESCRIPTION/JUSTIFICATION

Information systems are utilized by every City department in the process of providing services to the public. From email to database and GIS systems, all require that core server equipment run reliably. This project provides funding for the replacement of existing host servers every three to five years, an upgrade to the Microsoft Exchange Server platform, server operating system upgrades, and required Client Access License (CAL) and Windows DataCenter server licensing upgrades. This replacement schedule ensures that the processing capabilities of the server hardware and software are sufficient to support City operations.

This project is funded, wholly or in part, from the Information Technology Systems and Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 29 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition		14,000	9,000	9,000		47,000		54,000	133,000
Other									0
TOTAL	\$0	\$14,000	\$9,000	\$9,000	\$0	\$47,000	\$0	\$54,000	\$133,000
FUNDING									
Current Revenue									0
Capital Reserve		14,000	9,000	9,000		47,000		54,000	133,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$14,000	\$9,000	\$9,000	\$0	\$47,000	\$0	\$54,000	\$133,000

2021 - 2027 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project Name: Storage Area Network

Project Number: 90144-24

Physical Location: IT Data Center

Project Status: Ongoing CIP

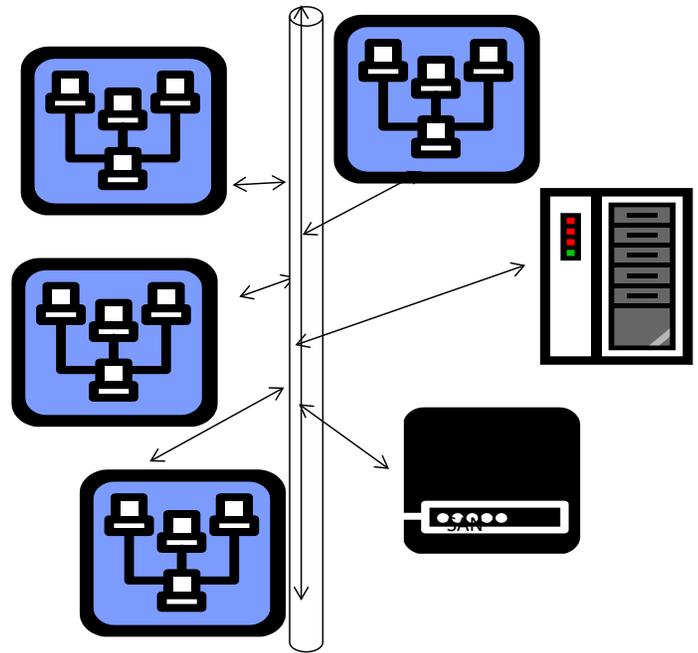
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide reliable file storage solution for all City departments



PROJECT DESCRIPTION/JUSTIFICATION

The network utilized by City staff across all departments provides a path between the end-users (computer users) and the databases on the servers. These databases and other electronic files such as documents, maps, and system backups are stored on storage area network (SAN) devices. The SANs enable more than one server to access a single system of physical disks, allowing allocation of space to each server as needed, thus reducing the total cost of server equipment. They are integral to our virtual environment, provide high availability and disaster recovery for all production servers and, carefully configured, are an important component in cybersecurity prevention and recovery. The typical life of a storage area network solution is about five years.

This project is funded, wholly or in part, from the Information Technology Systems and Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 29 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation					5,000				5,000
Property/Equip. Acquisition					120,000				120,000
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$125,000	\$0	\$0	\$0	\$125,000
FUNDING									
Current Revenue									0
Capital Reserve					125,000				125,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$125,000	\$0	\$0	\$0	\$125,000

2021 - 2027 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project Name: Phone System Replacement

Project Number: 90039-23
 Physical Location: Organization-Wide
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide telecommunications services for all City departments



PROJECT DESCRIPTION/JUSTIFICATION

Phones and the systems that run them provide the backbone to City communications. There are about 350 phones in regular use at the City and 5 separate paging systems, the importance of which cannot be understated as there is a phone on almost every City desk as well as in police dispatch and booking areas, Emergency Operations Center, laboratories, out-buildings, lobbies, and elevators. The servers and central phone system software that run all phone operations as well as building paging functions at multiple facilities including emergency service are on a five-year replacement cycle. The phones themselves also have a finite useful life and are scheduled for replacement every seven to ten years depending on vendor life span predictions and compatibility with the system software.

This replacement schedule ensures that the phone system is up and running 24X7 and does not jeopardize emergency services nor the day-to-day communications essential to City operations. Our current system is also tied into our networking devices of the same brand which greatly simplifies maintenance, upgrades, and configuration and helps minimize upgrade costs. Moving to a different platform could require new, redundant network devices which would drive up the cost.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				30,000					30,000
Property/Equip. Acquisition				173,000					173,000
Other									0
TOTAL	\$0	\$0	\$0	\$203,000	\$0	\$0	\$0	\$0	\$203,000
FUNDING									
Current Revenue				203,000					203,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$203,000	\$0	\$0	\$0	\$0	\$203,000

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INFRASTRUCTURE (GENERAL FUND)

Programs and services that are intended to promote the retention and expansion of existing businesses, and to encourage new business development in the City of Keene. This group includes improvements to the transportation infrastructure (roads, bridges, sidewalks, and bike paths) intended to facilitate the safe and efficient movement within the City; and connect the local community with the Monadnock region, the state, and the world. Also included, are projects aimed at preventing and remediating conditions leading to localized flooding through preventive maintenance, drainage system improvements, and comprehensive stormwater infrastructure planning.

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Airport

The Dillant-Hopkins Airport was dedicated on October 31, 1943, and had its first jet land in 1948. In 1963, instrument landing systems were installed as well as other airplane guidance systems and today, the airport is home to 92 aircraft and more than 28,000 aircraft operations annually; from small aircraft to corporate and charter jets. Keene airport has the third-longest runway in the state (Pease International and Manchester-Boston Regional are first and second in runway length, respectively) and through landing fees, services, land leases, and airplane hangar rentals raise approximately \$500,000 in revenue for the City. The airport is required by federal regulation to be open at all times, day or night. Keene is one of two airports defined by the government as a National airport in the future airport system that provides the highest level of air access for aviation users. The airport is a key transportation facility for the City of Keene and the region.

Marketing and developing the airport has been a part of the City of Keene Comprehensive Master Plan for more than a decade. With broad public and political support, there is a consistent effort at the airport to improve the tax base for the Town of Swanzey, as well as, provide revenue for the City of Keene from land leases, utilities and perhaps other services. Previous airport management made a focused effort to lure businesses to the airport. The former Airport Advisory Committee has been converted to the Airport Development and Marketing Committee. The ADMC has been tasked with continuing the outreach efforts and developing other pro-development strategies.

The airport has approximately 50 acres available for development for either aviation or non-aviation purposes. An additional 300 acres are available on adjacent land. Currently, one new hangar is under construction. Three other parties have expressed interest in the private development of additional T-Hangar space. All hangar space at the airport is full, and the airport maintains a waitlist with 7 aircraft owners desiring space. Nearly every day, corporate and private jets land in Keene to conduct business and extend economic roots into this region. The Fixed Based Operator, Monadnock Aviation has welcomed a significant increase in her business activity over the past few years. As a result of the increase in the airport business, Monadnock Aviation will be making substantial capital improvements in their building and has increased the square footage of buildings rented from the City. The terminal building of 10,500 square feet is fully occupied with tenants.

In 2015, the NH Department of Transportation estimated that between the direct and indirect airport-related activities, the Keene airport creates \$7.3 million in regional payroll and a regional economic benefit of \$21.44 million. This employment base is made up of restaurant workers, airplane mechanics, private corporate pilots and aviation support staff and employees that work at local companies, such as C&S Wholesalers, who are in this region because of the airport. The convenience and capacity of this airport make this region unique in the State of New Hampshire. We hope that the City Council will join the development efforts by funding economic development outreach efforts in the coming years. It is an investment worth making.

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Beacon Replacement

Project Number: 90216-21
 Physical Location: Keene Dillant-Hopkins Airport
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Vibrant Economy
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To maintain compliance with FAA safety regulations regarding the maintenance and operation of Aviation Hazard Beacons



PROJECT DESCRIPTION/JUSTIFICATION

The airport infrastructure includes 12 hazard beacons whose purpose is to mark obstructions and hilltops for planes arriving at, and departing the airport. We are embarking on a plan to replace two beacons over the next 6 to 8 years so that no beacon is more than 20 years old. In 2011 we replaced two beacons; in 2012 we replaced one beacon. The remainder are at or beyond 20 years of age. Federal/state cost-sharing is available for this and the City will have a 5% match for funding.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		25,000				500,000			525,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$25,000	\$0	\$0	\$0	\$500,000	\$0	\$0	\$525,000
FUNDING									
Current Revenue		25,000				25,000			50,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants						475,000			475,000
Other Sources									0
TOTAL	\$0	\$25,000	\$0	\$0	\$0	\$500,000	\$0	\$0	\$525,000

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Pavement Maintenance & Marking

Project Number: 90170-24

Physical Location: Keene Dillant-Hopkins Airport

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To maintain the integrity and safety of the facilities for the good of the airport users



PROJECT DESCRIPTION/JUSTIFICATION

MAINTENANCE: Nearly all pavement at the airport was constructed with the assistance of various federal grant programs. These grants historically provided up to 95% of the cost of construction. The City agreed to maintain the pavement to federal standards for safety as a condition of accepting these grants. Through regular pavement maintenance, the City can assure maximum pavement life. Maintenance includes the routine repair of defective, deteriorated, or otherwise failing pavement on aircraft movement areas. Defects include cracks of varying widths. Estimated costs (2016) are provided below. Costs are adjusted by 3% per year for inflation. Small cracks between 1/4" and 3/4" wide can be filled with sealant. Estimated costs are \$0.30 per linear foot (LF). Cracks larger than 3/4" wide can be filled with backing rod or sealant or filled with a mixture of emulsified asphalt and aggregate. Estimated costs are \$3 per LF. For larger cracks or areas of pavement failure, the existing pavement must be saw-cut and removed. The pavement is reconstructed to the full depth along the length of the crack or failure. Estimated costs are \$30 per LF.

MARKING: Pavement markings communicate important information to a pilot using the airport. Over time, these markings become obliterated due to weather fading, failing paint, and rubber debris from landing aircraft tires. Routine repainting of these markings is essential for safety. It is recommended that the Airport perform this maintenance every four years. The project includes the repainting of airfield paved surfaces. This includes touch down points, runway and taxiway centerlines, aircraft hold position lines, aircraft parking areas, runway threshold bars, and other critical pavement markings. In total there are approximately 75,000 square feet of pavement markings. Estimated costs per square foot (SF) for 2016 are provided below. Costs are adjusted by 3% per year for inflation. Scrub rubber and debris from existing pavement markings to prepare the surface for painting: \$1.60 per SF. Paint new pavement markings to meet FAA guidelines: \$1.20 per SF. Total estimated cost = \$2.80 per SF.

This project is eligible for FAA and NH DOT funding pursuant to 49 USC § 47102(3)(H).

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation					150,000	74,000	54,000		278,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$150,000	\$74,000	\$54,000	\$0	\$278,000
FUNDING									
Current Revenue					7,500	3,700	2,700		13,900
Capital Reserve									0
Debt Funded									0
Federal / State Grants					142,500	70,300	51,300		264,100
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$150,000	\$74,000	\$54,000	\$0	\$278,000

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Perimeter Fence

Project Number: TBD

Physical Location: Keene Dillant-Hopkins Airport

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To reduce the potential for accidents involving wildlife, increasing runways safety



PROJECT DESCRIPTION/JUSTIFICATION

This project is intended to add perimeter fencing to fully enclose the entire airport. Currently, only the northern, eastern, and partial southern boundaries are fenced. The presence of wildlife on the runways creates the most significant safety issues because of the unexpected behavior of animals when startled. Wildlife enters the safety zones of the runways daily, and staff must make multiple wildlife inspections checking for deer, moose, turtles, fox, and coyote. In 2016 two deer on one of the runways caused an airplane to crash. The plane was destroyed, and over \$15,000 of damage was done to the airport equipment and landing lights. The funding for the fencing project will be covered by 90% federal, 5% state, and 5% City funds.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						1,350,000			1,350,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$1,350,000	\$0	\$0	\$1,350,000
FUNDING									
Current Revenue						67,500			67,500
Capital Reserve									0
Debt Funded									0
Federal / State Grants						1,282,500			1,282,500
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$1,350,000	\$0	\$0	\$1,350,000

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Snow Removal Equipment

Project Number: 90297-24
 Physical Location: Keene Dillant-Hopkins Airport
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Title 49, US Code, Subtitle VII / FAA AC-5200-30C
 Master Plan (CMP) Focus Area: Vibrant Economy
 CMP Vision/Strategy: Infrastructure
 V.O.I.C.E: Continually Assess Facilities and Infrastructure
 Departmental Objective: To keep the airport operational and safe during winter operations



Truck-mounted engine for Sweepster broom

Sweepster broom

6-wheeled dump truck

PROJECT DESCRIPTION/JUSTIFICATION

The Dillant-Hopkins Airport is part of the National Plan of Integrated Airport Systems. As such, the City of Keene receives federal and state assistance for use in maintaining the safety, security, and operational readiness of the Airport. This includes the winter maintenance of the runways, taxiways, and aprons. The equipment used at the Airport for snow and ice removal is specialized for large surfaces and operational considerations. This project includes replacement of "AP 4", the Airport's 1995 6-wheeled dump truck and the 1995 Sweepster broom with attachments. In FY 24, both of these pieces of equipment will be 29 years old.

Completion of this project is subject to receipt of grants from the FAA and the NHDOT Bureau of Aeronautics at 90% and 5% respectively. The final 5% of funding will be the responsibility of the City.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition					555,556				555,556
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$555,556	\$0	\$0	\$0	\$555,556
FUNDING									
Current Revenue					27,778				27,778
Capital Reserve									0
Debt Funded									0
Federal / State Grants					527,778				527,778
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$555,556	\$0	\$0	\$0	\$555,556

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Taxiway A Reconstruction/Extension and Runway 2-20 Remarketing

Project Number: 90803-C / 90803-D

Physical Location: Keene Dillant-Hopkins Airport

Project Status: Ongoing CIP

Federal / State Regulation or Law: Title 49, US Code, Subtitle VII / FAA AC 150/5380-6B

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To replace deteriorating pavement, improve airport safety, and to comply with FAA runway/taxiway separation requirements



PROJECT DESCRIPTION/JUSTIFICATION

This project included a study that determined that the best location for the Automated Weather Observation System (AWOS) is in its current location. We are currently in the middle stages of the engineering, design and permitting, for the extension of Taxiway A, and possibly, the reconstruction of Taxiway A in addition to its extension. The extension will add approximately 1,390 feet. Taxiway A serves the airport's primary runway 2/20. The current taxiway was constructed in 1989. The taxiway will remain in the same location with the extension continuing to the south.

The extension will provide a path to the end of runway 2. It will eliminate the dangerous practice of planes backing up (back-taxiing) in order to take off. Completion of this project is subject to the receipt of grants from the FAA and the NHDOT at 90% and 5%, respectively. The final 5% of funding is the responsibility of the City. This will be accomplished in three phases: (1) the now completed AWOS Study, (2) the on-going design and permitting, and (3) construction as soon as federal/state funding becomes available.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design	390,000								390,000
Construction / Implementation		4,200,000		2,500,000					6,700,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$390,000	\$4,200,000	\$0	\$2,500,000	\$0	\$0	\$0	\$0	\$7,090,000
FUNDING									
Current Revenue	19,500								19,500
Capital Reserve									0
Debt Funded									0
Federal / State Grants	370,500	3,990,000		2,375,000					6,735,500
Other Sources - Property Sale		210,000		125,000					335,000
TOTAL	\$390,000	\$4,200,000	\$0	\$2,500,000	\$0	\$0	\$0	\$0	\$7,090,000

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Fuel Tank Removal & Replacement

Project Number: 90122-21

Physical Location: Keene Dillant-Hopkins Airport

Project Status: Ongoing CIP

Federal / State Regulation or Law: Title 49, US Code, Subtitle VII

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To maintain the integrity and safety of the airport facilities.



PROJECT DESCRIPTION/JUSTIFICATION

The airport has two underground fuel storage tanks that are more than 20-years old. In 2018, we experienced a cancellation of coverage due to age but were able to pay a premium to extend coverage. While the tanks have passed annual inspections, the insurance companies have indicated that the tanks need replacement, or in the near future, we may not be able to acquire liability insurance.

We propose removing and replacing the tanks in the same general area. The new tanks would be above-ground tanks. We have received an estimate from a vendor with whom we have done similar business in the past, and the estimate to remove the tanks, conduct soil testing and required analysis/reporting, and install new tanks that meet the containment standards, is estimated at \$515,000. There is virtually no likelihood that this project would score well enough to get federal/state funding (19 out of 100 points).

This is a very high priority as insurance coverage is at risk. The fuel system is essential for airport operations.

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		515,000							515,000
Property/Equip. Acquisition									0
Other - Debt Issuance		3,194							3,194
TOTAL	\$0	\$518,194	\$0	\$0	\$0	\$0	\$0	\$0	\$518,194
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded		508,000							508,000
Federal / State Grants									0
Other - Project Balances		10,194							10,194
TOTAL	\$0	\$518,194	\$0	\$0	\$0	\$0	\$0	\$0	\$518,194

2021 - 2027 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project Name: Terminal Apron Expansion

Project Number: 90218-26
 Physical Location: Keene Dillant-Hopkins Airport
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Title 49, US Code, Subtitle VII
 Master Plan (CMP) Focus Area: Vibrant Economy
 CMP Vision/Strategy: Infrastructure
 V.O.I.C.E: Continually Assess Facilities and Infrastructure
 Departmental Objective: To expand airside capacity at the airport terminal



PROJECT DESCRIPTION/JUSTIFICATION

The airport terminal parking apron, covering an area of approximately 8,200 square yards, has the capacity to hold 15 to 19 aircraft - depending on the size of the aircraft. The larger the aircraft, the more difficult to maneuver and park, causing challenges for the fixed base operator (FBO) as well as pilots. The area is frequently congested and is projected to get more congested as air traffic increases due to airport marketing efforts.

The airport layout provides ample space to expand the apron by adding pavement and tie-downs in the area between the current apron and the unused taxi lane. This expansion will double the area available for use. Completion of this project is subject to receipt of grants from the FAA and the NHDOT Bureau of Aeronautics, at 90% and 5% respectively. The final 5% of funding will be the responsibility of the City.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation							1,300,000		1,300,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$1,300,000	\$0	\$1,300,000
FUNDING									
Current Revenue							65,000		65,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants							1,235,000		1,235,000
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$1,300,000	\$0	\$1,300,000

2021 - 2027 Capital Project Funding Request

Airport



GENERAL PROJECT DATA

Project Name: Easement Acquisition

Project Number: 90287-22

Physical Location: Keene Dillant-Hopkins Airport

Project Status: Ongoing CIP

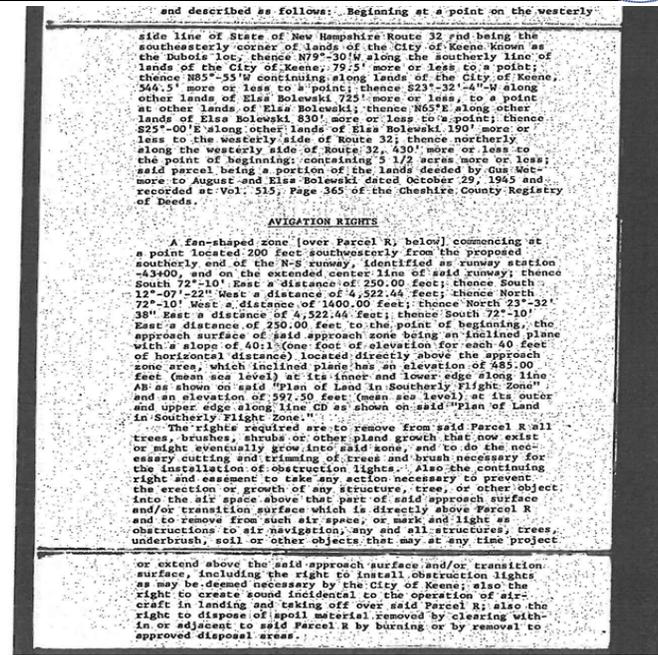
Federal / State Regulation or Law: Title 49, US Code, Subtitle VII

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: To meet safety obligations for the management of obstructions.



PROJECT DESCRIPTION/JUSTIFICATION

Over the period 2016-2018, the airport has removed trees from properties around the airport. Trees that get too tall within the flight approach areas create significant safety issues for planes approaching and leaving the airport. The airport has been fortunate to acquire permission to remove trees on private property from the property owners, hence the purchase of avigation easements has been necessary. Going forward, there is a much higher likelihood that remaining property owners will request compensation in exchange for us removing trees on their property.

This project will set the stage to utilize federal/state funding for easement acquisition so that the airport can continue to meet its safety obligations for the management of obstructions. The costs associated with easement acquisition include property surveys, recurring property appraisals, drafting of deeds, and recording of deeds. Once an easement is obtained, then obstruction removal would begin. Obstruction removal is a separate project in the CIP.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition						300,000			300,000
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded									0
Federal / State Grants						285,000			285,000
Other Sources - Sale of Property						15,000			15,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000

Public Works

Transportation

The City's transportation system is comprised of 126 centerline miles of streets, 31 active bridges, over 52 miles of sidewalks, 14,900 linear feet of guard rail, 8 traffic control signals, 4 flashing traffic signals and 6 multi-use bridges with over 10 miles of multi-use trails. The transportation system provides critical links within the City, to the region, to the State, and ultimately to the world. The transportation system integrates multi-modes of transportation with shared use roadways along with separated multi-use trails. The transportation system is how people get to work and school, buy groceries and access recreational activities. For businesses, it is their lifeline to receive and provide goods and services. A strong transportation system will set a positive tone and drives a community to success. A failing or struggling system will hold back a community's ability to flourish and compete.

The assets of the City's transportation system have been in place from the founding of the City, the 1750s, up to current times. This has resulted in components that were designed and built for very different needs, horse-drawn carriages and wagons, but are expected to meet the demands of today's requirements, multi-generational pedestrians, vehicles, and bicycles operators; multi-passenger vehicles, tractor-trailer trucks, electric cars, and autonomous vehicles in the near future.

The City invests in its transportation system through different ways. The City works to maintain and keep components functioning through its maintenance and repair projects. Through the Capital Improvement Program (CIP) components are maintained through the bridge replacement, road rehabilitation and preservation, curbing, sidewalk, traffic signals, and guard rail repair projects. To determine the needs for these projects the Public Works Department performs inventory and condition surveys of the various assets. These surveys collect information on the condition (how much cracking, potholing, or deterioration to components), on use (vehicle or pedestrian trips), and types of uses (is it a school route, residential collector or pathway to commercial centers). This information is reviewed to determine the types and methods of repair strategies, priority, and timing. Also layered into the review are the timing and need for work on other infrastructure components (water and sewer), work by private utilities, and larger developments within the community.

The City also invests in its transportation system through projects that improve functionality and/or capacity to meet increased demands or changes in function. Through the Capital Improvement Program, this is accomplished through the Street Reconstruction Program, Lower Winchester Street Reconstruction, Victoria Street Extension, and West Street Corridor Improvements. These projects are identified through various avenues including the City's Comprehensive Master Plan, special commissions or review committees, development changes, and evaluation of data collected during the street survey.

Overall the City works to balance the need to maintain the functionality and operations of its transportation system and the cost of the system to the property owners.

Flooding and Stormwater Management

The City of Keene sits on the valley floor at the bottom of a glacial lakebed. There are 5 watersheds that intersect the City with multiple brooks and streams passing through neighborhoods and the downtown. These brooks and streams receive stormwater from City streets and private properties. The City has attempted to manage stormwater and floodwaters since the mid-1800s. As it developed, the City constructed open ditches to convey this stormwater. Over time the City enclosed some of these open ditches and added structures and pipes. This created a complex network of open ditches and pipes that merges with streams to move stormwater through the City. Today this system contains over 6,000 structures, over 80 miles of drainage pipes, over 10 miles of open ditches, and three high-hazard dams. The community has also modified Ash Swamp Brook, Beaver Brook, and Black Brook to allow for more use and development of land.

The City and State of New Hampshire are subject to changing weather patterns. Intense storm events are occurring at a greater frequency with higher amounts of precipitation. This has stressed the City's 175-year-old stormwater system. The City manages the system through maintenance and improvement of existing components. This is done through the Capital Improvement Program (CIP). Current CIP projects to maintain the existing system include Stormwater Spot Repairs and Drainage Pipe Lining. There are specific areas of the City that require upgrades to the stormwater infrastructure to reduce the frequency of flooding. In the current CIP, the Flood Management Projects identify these specific locations and the proposed solution to address the particular flooding issue.

The City also develops new projects to reduce flooding problems. Current CIP projects to reduce flooding include the Beaver Brook Flood Mitigation and the Stormwater Management System Analysis.

Priority for projects is based on the condition and criticality of system components. Projects are also coordinated with other planned utility and roadway projects. The City works to balance the maintenance of the existing system, new solutions to reduce flooding, and the cost of these to property owners.

Community Support

A number of projects and programs are intended to promote the retention and expansion of existing businesses, to encourage and attract new business development, enhance the overall quality of life and sustainability of the live work and play. These projects include support for the Arts and Culture Corridor initiative and the reconstruction of the Downtown core to support future growth and activities.

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Arts & Culture Corridor-Stormwater and Road Infrastructure Support

Project Number: TBD

Physical Location: Downtown

Project Status: New Project

Federal / State Regulation or Law:

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide adequate infrastructure to support the goal of a vibrant downtown.



PROJECT DESCRIPTION/JUSTIFICATION

The community and private entities are considering the addition of facilities and amenities that would support and encourage the arts and creative culture in the City of Keene and region. Discussions have included the reconstruction of Gilbo Avenue from Main Street to St James Street, extension of Wilson Street, the construction of a covered pavilion near the intersection of Gilbo Avenue and School Street, the construction of a skate park along Gilbo Avenue, the construction of a mixed-use artist live and workspace on Eagle Court, the renovation of several existing buildings, and the redesign of Rail Road Square. This project would provide for the design, replacement, and upgrade of City infrastructure to support this initiative. The stormwater, wastewater, and water infrastructure in the area date to the 1890's up to the 1960's with some systems being under-capacity. It is prudent to replace these systems prior to placing new construction over them to avoid unnecessary damage from a failure. There may be additional improvements/upgrades to support this initiative as plans are developed.

The budget shown below assumes replacing approximately 1600 feet of undersized and deteriorated storm drains, along with associated catch basins and manholes. The cost to extend Wilson Street from its current terminus to Gilbo Avenue is also included.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		114,800							114,800
Construction / Implementation		650,400							650,400
Property/Equip. Acquisition									0
Other - Debt Issuance		4,800							4,800
TOTAL	\$0	\$770,000	\$0	\$0	\$0	\$0	\$0	\$0	\$770,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded		770,000							770,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$770,000	\$0	\$0	\$0	\$0	\$0	\$0	\$770,000

2021 - 2027 Capital Project Funding Request

Public Works



GENERAL PROJECT DATA

Project Name: Downtown Reconstruction and Revitalization

Project Number: 90315-20

Physical Location: 560 Main Street

Project Status: Ongoing CIP

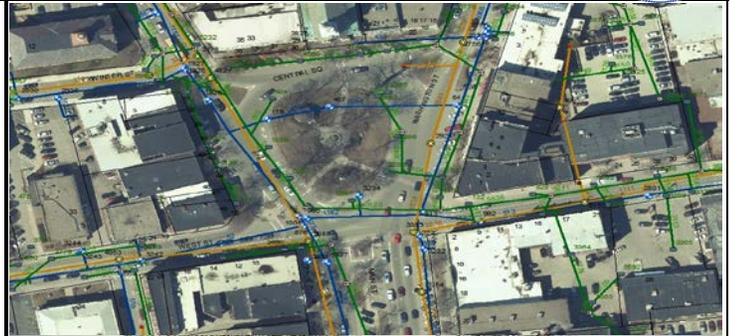
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Economic Development

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Replace/upgrade existing infrastructure that has exceeded its useful life and/or is under capacity. Develop plans for updating and providing space for desired activities to support the next 30 years' demands.



PROJECT DESCRIPTION/JUSTIFICATION

The downtown area is the economic engine for the community and represents the spirit and place of Keene. It is important to continue investment to support the businesses and community and keep the area relevant and vibrant. The infrastructure, telecommunication, electrical, water, sewer, and stormwater go back over 120 years. The last major downtown revitalization occurred in 1988. This work was supported for the last 30 years. Downtown has expanded into the Railroad Street area to 93rd Street, south to the Main/Marlboro/Winchester intersection and is projected to expand into Roxbury Street and Gilbo Avenue areas. The features that give downtown its unique spirit need to be considered when expanding the downtown area. This project provides funding for design work that includes the review of the various infrastructure components and building services along with assessing function and aesthetics interest. In addition to infrastructure replacement and other improvements, the funding will include improvements to existing treatments along Main Street or expanding the "Downtown Vibe" into new areas. It is anticipated that the City will seek grants and other funding that will require an economic analysis that is within the existing funding. Construction has been initially set for FY22, 23, 24 and 25. It is anticipated that the work progression will be in thirds. With Central Square being the first area, then moving between Central Square and Gilbo Avenue and then finishing between Gilbo Avenue and Emerald Street/Eagle Court. The estimated cost for improvements will be adjusted based on the outcome of the planning work.

Dependent upon the scope of the selected options, it may be necessary to request additional resources to fund the approved project, with funding anticipated to be raised (if necessary) through a bond issue not included in the proposed CIP.

This project is funded, wholly or in part, from the Downtown Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 27 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design	210,000	100,000							310,000
Construction / Implementation			500,000	550,000	450,000	550,000			2,050,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$210,000	\$100,000	\$500,000	\$550,000	\$450,000	\$550,000	\$0	\$0	\$2,360,000
FUNDING									
Current Revenue									0
Capital Reserve	210,000	100,000	500,000	550,000	450,000	550,000			2,360,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$210,000	\$100,000	\$500,000	\$550,000	\$450,000	\$550,000	\$0	\$0	\$2,360,000

CONSOLIDATED INFRASTRUCTURE REPORT							FY21	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Arts & Culture Corridor				615,200	41,565	36,300	154,800	847,865
Cady Street	12,900							12,900
Cobb Street	11,300							11,300
Colony Court				28,800	1,455,513			1,484,313
Hooper Street	26,800							26,800
Lamson Street	19,700	15,000	14,752	10,000				59,452
Downtown Revitalization							100,000	100,000
Main Street (Rt. 101 to Silent Way)	83,200	35,000	22,000	10,000				150,200
Martin Street	48,900							48,900
Roxbury Street ⁽¹⁾	200,000			733,000		330,470		1,263,470
Salisbury Road	52,600							52,600
School Street (West to Emerald)	70,700		22,000	10,000				102,700
Speaker Street	14,700							14,700
St. James Street	25,700	18,752	10,000	10,000				64,452
Washington Street	150,700							150,700
Winchester Street (South of Rt. 101) ⁽²⁾							982,929	982,929
Sewer Repair & Lining (various locations)					184,500			184,500
Martel Court Pump Station					249,000			249,000
Wastewater Treatment Plant					483,400			483,400
Gate Valves (various locations)						96,000		96,000
DPW Salt Shed							105,000	105,000
								-
								-
								-
								-
Detail: FY 2021 Projects	717,200	68,752	68,752	1,417,000	2,413,978	462,770	1,342,729	6,491,181
Contingency, Design & Admin. & Inflation	170,571							170,571
Program Funding Request: 2021	\$ 887,771	\$ 68,752	\$ 68,752	\$ 1,417,000	\$ 2,413,978	\$ 462,770	\$ 1,342,729	\$ 6,661,752

CONSOLIDATED INFRASTRUCTURE REPORT							FY22	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Arts & Culture Corridor					235,535	205,700		441,235
Chapman Road	193,700							193,700
Church Street				744,000				744,000
Concord Road	352,700							352,700
Darling Road	137,400							137,400
Dickinson Road	137,500							137,500
Forestview Road	49,000							49,000
George Street (Bridge Replacement)							117,398	117,398
Downtown Revitalization ⁽²⁾						211,246	500,000	711,246
Maple Avenue	140,100							140,100
Meetinghouse Road	116,400							116,400
Old Walpole Road	87,000							87,000
Timberlane Drive	160,800							160,800
Winchester Street (South of Rt. 101) ⁽²⁾							267,349	267,349
Curb Installation (location TBD)		70,815						70,815
Sidewalk Replacement (location TBD)			70,815					70,815
Stormwater Spot Repairs (location TBD)				70,900				70,900
Sewer Repair & Lining (various locations)					190,015			190,015
Wastewater Treatment Plant					90,000			90,000
Sewer Force Main					324,597			324,597
Gate Valves (various locations)						98,900		98,900
Water Treatment Facility Upgrades						203,126		203,126
Water Storage Tank Upgrades						495,616		495,616
DPW Salt Shed							144,081	144,081
								-
								-
								-
								-
Detail: FY 2022 Projects	1,374,600	70,815	70,815	814,900	840,147	1,214,588	1,028,828	5,414,693
Contingency, Design & Admin. & Inflation	294,191							294,191
Program Funding Request: 2022	\$ 1,668,791	\$ 70,815	\$ 70,815	\$ 814,900	\$ 840,147	\$ 1,214,588	\$ 1,028,828	\$ 5,708,884

1) The Roxbury Street project also includes \$702,608 appropriated through the FY20 CIP.

2) "Other" includes roadway work that is funded separately from the Roadway Preservation & Rehabilitation program.

2024

2025

2026 & 2027

PRESERVATION	EST. COST
Grove Street	\$ 5,800
Pearl Street	\$ 21,900
Ralston Street	\$ 5,500
Roxbury Road	\$ 46,800
Swanzey Factory Road	\$ 12,800
School Street	\$ 20,800
Subtotal - Preservation	\$113,600

PRESERVATION	EST. COST
TBD ⁽¹⁾	\$ 150,000
Subtotal - Preservation	\$150,000

PRESERVATION	EST. COST
TBD ⁽¹⁾	\$ 150,000
Subtotal - Preservation	\$150,000

MINOR REHABILITATION	EST. COST
Subtotal - Minor Rehab.	\$0

MINOR REHABILITATION	EST. COST
Greenwood Avenue	\$ 116,400
Kenworth Avenue	\$ 13,500
Leawood Avenue	\$ 9,500
Lynnwood Avenue	\$ 42,260
Riverton Street	\$ 11,200
Walker Street	\$ 5,400
Subtotal - Minor Rehab.	\$ 198,260

MINOR REHABILITATION	EST. COST
TBD ⁽¹⁾	\$ 150,000
Subtotal - Minor Rehab.	\$ 150,000

MAJOR REHABILITATION	EST. COST
Elm Street (Mechanic to Cross)	\$ 58,100
Marlboro (East of Eastern)	\$ 248,500
West Street (Central Sq. to Park)	\$ 913,800
Subtotal - Major Rehab.	\$ 1,220,400

MAJOR REHABILITATION	EST. COST
Island Street	\$ 203,500
Old Homestead Highway	\$ 34,600
TBD ⁽¹⁾	\$ 325,000
Subtotal - Major Rehab.	\$ 563,100

MAJOR REHABILITATION	EST. COST
TBD ⁽¹⁾	\$ 800,000
Subtotal - Major Rehab.	\$ 800,000

Subtotal	\$ 1,334,000
10% Contingency	\$ 133,400
Construction Total	\$ 1,467,400
Design, Construction, S&OH	\$ 14,674
2019 Cost	\$ 1,482,074
Inflation adjustment (5 years x 3% x project total)	\$ 236,056
Total Overlay Cost	\$ 1,718,130

Subtotal	\$ 911,360
10% Contingency	\$ 91,136
Construction Total	\$ 1,002,496
Design, Construction, S&OH	\$ 50,025
2019 Cost	\$ 1,052,521
Inflation adjustment (6 years x 3% x project total)	\$ 204,244
Total Overlay Cost	\$ 1,256,765

Subtotal	\$ 1,100,000
10% Contingency	\$ 110,000
Construction Total	\$ 1,210,000
Design, Construction, S&OH	\$ 12,100
2019 Cost	\$ 1,222,100
Inflation adjustment (7 years x 3% x project total)	\$ 280,929
Total Overlay Cost	\$ 1,503,029

Notes: 1) The specific scope of work for FY25 will be determined based on the proposed FY21 condition survey.

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Roadway Preservation & Rehabilitation

Project Number: 90018-ZZ

Physical Location: City Roadways

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide a transportation network that meets the communities expectations at the lowest possible life-cycle cost



PROJECT DESCRIPTION/JUSTIFICATION

The City maintains 127 miles of roads, of which 125 miles are paved. These roads are in various states of repair. Based on an assessment of roadway conditions and traffic volumes, the roads were ranked from good to poor. Conditions include cracks, potholes, delamination of pavement, and roughness. Roadways scheduled for improvements are selected based upon their condition. As appropriate, other required infrastructure improvements such as drainage, curbing, and sidewalk repairs, are coordinated to take advantage of contractor mobilization costs.

The Road Program for FY21-27 continues to invest the majority of funds into roadway rehabilitation. This includes traditional "major rehabilitation" methods (e.g., mill/shim/overlay) as well as some lower-cost "minor rehabilitation" approaches (e.g., in-place recycling, ultra-thin wearing surfaces, etc.). No complete reconstruction projects are proposed during the FY20-25 CIP. This year's program continues the adoption of a formal "Preservation" strategy that was first presented in FY19. These are low-cost maintenance tasks performed on roads that are in good condition with the intention of extending the useful life of the pavement, at the lowest life-cycle cost. Examples completed during previous construction seasons include the slurry-applied sealant on Court Street and a spray-applied sealant on Optical Avenue.

In FY21 and FY25, funds are requested to perform a detailed road condition survey. Updated condition assessments will be performed every four years.

This project is funded, wholly or in part, from the Road Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 31 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		40,000				40,000			80,000
Construction / Implementation		847,771	1,668,791	1,240,062	1,718,130	1,216,765	1,503,029	1,503,029	9,697,577
Property/Equip. Acquisition									0
Other - Debt Issuance		5,229	3,209	7,938	9,870	7,235	8,971	8,971	51,423
TOTAL	\$0	\$893,000	\$1,672,000	\$1,248,000	\$1,728,000	\$1,264,000	\$1,512,000	\$1,512,000	\$9,829,000
FUNDING									
Current Revenue									0
Capital Reserve			750,000						750,000
Debt Funded		893,000	922,000	1,248,000	1,728,000	1,264,000	1,512,000	1,512,000	9,079,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$893,000	\$1,672,000	\$1,248,000	\$1,728,000	\$1,264,000	\$1,512,000	\$1,512,000	\$9,829,000

Bridge Rehabilitation and Replacement Program

The City is responsible for 43 bridges, including 33 vehicular bridges and 10 bicycle/pedestrian bridges. They provide critical transportation links throughout the City. The bridges range in age from new to nearly 100 years old. The New Hampshire Department of Transportation (NH DOT) inspects these bridges on a bi-annual basis. Each bridge subsystem (deck, superstructure, substructure, railing, approaches, etc.) are reviewed and their condition is rated. The ratings range from 9 – Excellent Condition to 1 – Imminent Failure. Bridges that are identified with significant deficiencies (ratings of 5 or less) are classified as “Red Listed” and inspected annually. The type of deficiencies on City bridges includes insufficient lane width and deterioration of deck surfaces and supporting members. The City has 11 bridges that are on the State’s Red List ⁽¹⁾. To prioritize the repair of these bridges, the Engineering Division weighs the bridge condition, the type of deficiencies, the amount of traffic that uses the bridge, the potential impacts if weight restrictions or closure occurs, and availability of a reasonable detour. Staff recommends that bridge repair/replacement be prioritized as follows:

- | | |
|--|--|
| (1) Roxbury Street over Beaver Brook ⁽²⁾ | (7) Church Street over Beaver Brook |
| (2) Island Street over Ashuelot River ⁽²⁾ | (8) Ferry Brook Road over Ferry Brook |
| (3) George Street over Beaver Brook ⁽²⁾ | (9) Whitcomb Mills Road over White Brook |
| (4) Winchester Street/Rte.10 over Ash Swamp Brook | (10) Summit Road over Black Brook |
| (5) Beaver Street over Beaver Brook | (11) Spring Street over Beaver Brook |
| (6) Maple Avenue over Black Brook | |

City bridge projects are eligible to participate in the State’s Municipal Bridge Aid Program. This program shares the cost of bridge repair/replacement between the community and the State with 80% of the funding from the State and 20% from the City. To be considered for funding the City must prove that it has appropriated its 20% share. Contributions to the Bridge Capital Reserve are planned so that the City may request State funding for one bridge every three years. There is no guarantee that State funds will be approved in accordance with the schedule listed below. However, by having our share appropriated, we will be in a position to utilize any additional State funds that may become available (e.g., if a programmed project is canceled).

Roadway	Waterway	Description	Design Year	Anticipated Construction Year	Construction Cost Estimate
Roxbury Street ⁽²⁾	Beaver Brook	Design is underway for the replacement structure.	2018	2020	\$920,000
Island Street ⁽²⁾	Ashuelot River	Design is underway for the replacement structure.	2018	2021	*See costs for State Bypass Program
George Street ⁽²⁾	Beaver Brook	The State previously accepted this bridge for construction in 2022 within the NH DOT Ten Year Transportation Improvement Plan, dated June 2016. The Draft Ten Year Plan dated August 12, 2019, would postpone this project until 2023/2024.	2023	2024	\$782,651
Winchester Street / Rt. 10	Ash Swamp Brook	Design of this project has been suspended due to NH DOT funding shortfall. Bridge replacement will be incorporated into the FY25 Lower Winchester Street Corridor Reconstruction Project. The recently completed Engineering Study estimated the replacement cost at \$3,511,500. ⁽³⁾ The City’s 20% Match will be \$702,300. Currently, the Bridge Capital Reserve includes approx. \$143,300 for this project. Therefore, an additional \$559,000 in debt funding will be appropriated in FY25.	2015	2025	\$3,511,500
Beaver Street	Beaver Brook	The NH DOT estimated the replacement cost at \$655K in 2009 ⁽⁴⁾ . The City previously appropriated \$92,000 for our City’s 20% match. An additional \$137,700 will be required to match the construction-year estimated cost. Appropriations to the Bridge Capital Reserve in FY20 and FY21 will allow us to request funding through the 2023-2032 TYP.	2026	2028	\$1,148,546
Maple Avenue	Black Brook	The estimated replacement cost is \$998,600 ⁽⁵⁾ . Appropriations to the Bridge Capital Reserve in FY22 and FY23 will allow us to request funding through the 2025-2034 TYP.	2029	2031	\$998,600
Church Street	Beaver Brook	The estimated replacement cost for this structure is \$1,267,700 ⁽⁶⁾ . Therefore, the City will require matching funds of \$218,700 by the Fall of 2024 in order to request inclusion in the NH DOT’s 2027-2036 TYP. The requested appropriations to the Bridge Capital Reserve in FY24 & FY25 will achieve that goal.	2032	2034	\$1,267,700
Ferry Brook Road	Ferry Brook	A detailed cost estimate for this bridge has not been prepared. For planning purposes, we estimate the cost will be approximately \$600,000 in current dollars. With inflation, the estimated cost will be \$1,052,100. Therefore, the City will require matching funds of \$210,420 by the Fall of 2026 in order to request inclusion in the NH DOT’s 2029-2038 TYP. Capital Reserve appropriations will be requested in FY26 & FY27.	2035	2037	\$1,052,100

Notes:

- 1) Harrison Street Bridge, which has been discontinued for vehicle traffic, is not included.
- 2) These projects have been funded by both the State and City and are scheduled for construction.
- 3) The replacement cost for Winchester Street was estimated at \$2,855,150 in 2018. With inflation, the construction-year estimated cost will be \$3,511,474.
- 4) The replacement cost for Beaver Street was estimated at \$655,000 in 2009. With inflation, the construction-year estimated cost will be \$1,255,048.
- 5) The replacement cost for Maple Avenue was estimated at \$680,000 in 2018. With inflation, the construction-year estimated cost will be \$998,603.
- 6) The replacement cost for Church Street was estimated at \$790,000 in 2018. With inflation, the construction-year estimated cost will be \$1,267,718.

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Bridge Repair/Replacement

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: NH RSA 234

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funding for the City to rehabilitate and replace red-listed bridges. The City participates in the Municipal Bridge Aid Program through the New Hampshire Department of Transportation (NHDOT). The program provides 80% state funding with a local 20% match. For consideration in the program, the City must prove that it has appropriated the local match.

The project schedule below has been updated from previous years based on the Draft NHDOT Ten Year Plan, 2021-2030, published on August 12, 2019. The state plan provides funding for George Street in FY24.

In 2018, the City was notified by the NHDOT that the Winchester Street replacement must be postponed due to funding limitations. The project is now scheduled for construction as part of the Lower Winchester Street reconstruction in FY25. The cost and funding plan for this bridge replacement is described within the Lower Winchester Street project request page.

This project is funded, wholly or in part, from the Bridge Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 26 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design			117,398				172,282		289,680
Construction / Implementation					649,600				649,600
Property/Equip. Acquisition				15,653				11,485	27,138
Other									0
TOTAL	\$0	\$0	\$117,398	\$15,653	\$649,600	\$0	\$172,282	\$11,485	\$966,418
FUNDING									
Current Revenue									0
Capital Reserve			23,480	3,131	129,920		34,456	2,297	193,284
Debt Funded									0
Federal / State Grants			93,918	12,522	519,680		137,826	9,188	773,134
Other Sources									0
TOTAL	\$0	\$0	\$117,398	\$15,653	\$649,600	\$0	\$172,282	\$11,485	\$966,418

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Curb Repair / Replacement

Project Number: 90196-ZZ
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funds for repair or replacement of curbs throughout the City. The City coordinates this work with roadway rehabilitation projects. The 2019 cost to install granite curb was approximately \$45 per linear foot. Therefore, current funding levels allow us to replace approximately 1,500 linear feet per year. In many cases, the existing curb can be cleaned and reset at the proper elevation. The cost for this type of repair is approximately \$25 per linear foot.

Granite curb will be installed for complete street reconstruction projects. The City adopted granite as the standard material for all new curbs. Section 70-126 of the City Code states that granite curbs shall be required on the public ways of all new developments and in conjunction with the replacement of existing sidewalks and curbs in commerce, central business, industrial, and both medium and high-density residential zones. Granite curb is more costly than asphalt but has a longer life expectancy. Bituminous curb will be installed on roadway rehabilitation projects where existing bituminous curb has deteriorated and requires replacement. In FY21 the funds will be distributed between Roxbury St., Saint James St., and Lamson St. In FY22, the road paving program will entail mostly roads without curbing. Therefore, some of the funding will be available to repair areas not associated with paving projects.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		68,752	70,815	72,939	75,128	77,382	79,703	82,095	526,814
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$68,752	\$70,815	\$72,939	\$75,128	\$77,382	\$79,703	\$82,095	\$526,814
FUNDING									
Current Revenue		68,752	70,815	72,939	75,128	77,382	79,703	82,095	526,814
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$68,752	\$70,815	\$72,939	\$75,128	\$77,382	\$79,703	\$82,095	\$526,814

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Sidewalk Repair / Replacement

Project Number: 90046-ZZ

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funds for repair or replacement of sidewalks throughout the City. For repair projects, concrete sidewalks will be installed where there are existing concrete sidewalks. Asphalt sidewalks will be installed where there are existing asphalt sidewalks. Work includes complete replacement of the concrete sidewalk, or milling the existing asphalt and providing an asphalt overlay. The City generally coordinates this work with roadway rehabilitation projects. In FY21 the City expects most of the requested funding to be used in the vicinity of the Lamson St., Saint James St., and School St. In FY22, the funds will be used predominantly on Timberlane Road, Darling Road, and Old Walpole Road.

In 2017, Engineering Division staff completed an updated survey of sidewalk conditions throughout the City. As funds allow, the results of the condition survey will be used to prioritize spot repairs in areas where no road rehabilitation project is pending.

The need for maintaining and replacing existing sidewalks exceeds currently available resources. The 2018 cost to install a five-foot-wide concrete sidewalk (including design, construction administration, and project overhead) was approximately \$47 per linear foot. Asphalt sidewalk costs approximately \$23 per linear foot. At current funding levels, the City can replace approximately 1,500 feet of the concrete sidewalk or 3,000 feet of asphalt sidewalk.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		68,752	70,815	72,939	75,128	77,381	79,702	82,094	526,811
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$68,752	\$70,815	\$72,939	\$75,128	\$77,381	\$79,702	\$82,094	\$526,811
FUNDING									
Current Revenue		68,752	70,815	72,939	75,128	77,381	79,702	82,094	526,811
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$68,752	\$70,815	\$72,939	\$75,128	\$77,381	\$79,702	\$82,094	\$526,811

Gateway Reconstruction

Winchester Street from NH Rte. 101 Roundabout to Swanzy Town Line

The reconstruction of Lower Winchester Street from the NH Route 101 Roundabout to the Swanzy Town Line and replacement of the Winchester Street Bridge over Ash Swamp Brook is included in the NHDOT draft FY2021 - 2030 Ten Year Plan dated August 12, 2019. Preliminary engineering is scheduled for FY21, right-of-way acquisition for FY22 and FY23, and construction for FY25 and FY26. This project requires a 20% cost match from the City. State Project Number KEENE (40666).

Phase	State	City	Total Budget	Program Year (FY)
PE	\$786,343	\$196,586	\$982,929	2021
ROW	\$213,879	\$53,470	\$267,349	2022
ROW	\$361,083	\$90,271	\$451,354	2023
CON	\$3,858,832	\$964,708	\$4,823,540	2025
CON	\$2,024,899	\$506,225	\$2,531,124	2026
Project Totals	\$7,245,036	\$1,811,259	\$9,056,295	

Phase: CON = Construction PE = Preliminary Engineering ROW = Right-of-Way Acquisition

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Lower Winchester Street Reconstruct

Project Number: 90266

Physical Location: Winchester Street - NH Rt 101 to Town Line

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve gateway/corridor into the City



PROJECT DESCRIPTION/JUSTIFICATION

The City has several gateway entrances into the City. One of these gateways is Winchester Street from the Swanzey Town Line to the NH Rte. 101 Roundabout. This is an area of commercial, residential and industrial activities. This gateway has not been upgraded in over 30 years. Adjustments were made in 2010 to the intersection of Matthews Road and Winchester Street to improve traffic turning movements. This project would involve the reconstruction of Winchester including improvements to the eight intersections along the corridor, reconfiguration of traffic lanes to improve traffic flow, the construction of sidewalks and improvements for bicycle facilities. There would be landscaping improvements to highlight the business corridor. The Winchester Street Bridge over Ash Swamp Brook would also be replaced as part of this project. The proposed funding is an 80% State with 20% coming from the City of Keene. There will also be Municipal Owned Bridge Rehabilitation and Replacement (MOBRR) and State Aid Bridge Funding for the replacement of the Winchester Street bridge over Ash Swamp Brook.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		982,929							982,929
Construction / Implementation						4,823,540	2,531,124		7,354,664
Property/Equip. Acquisition			267,349	451,354					718,703
Other - Debt Issuance						5,292	2,775		8,067
TOTAL	\$0	\$982,929	\$267,349	\$451,354	\$0	\$4,828,832	\$2,533,899	\$0	\$9,064,362
FUNDING									
Current Revenue		81,455	53,470	90,271					225,195
Capital Reserve									0
Debt Funded						970,000	509,000		1,479,000
Federal / State Grants		786,343	213,879	361,083		3,858,832	2,024,899		7,245,036
Other Sources - Project Balance		115,131							115,131
TOTAL	\$0	\$982,929	\$267,349	\$451,354	\$0	\$4,828,832	\$2,533,899	\$0	\$9,064,362

Traffic Signal and Flashing Signal Replacement Program

Location	Fiscal Years								
	23	24	25	26	27	28	29	30	31
Traffic Signals									
West St @ Island St	\$190,900								
Central Square		\$196,800	\$202,700						
West St @ School St				\$208,800					
West St @ Gilbo Ave/Ashuelot St					\$221,500				
West St @ West St Plaza						\$228,100			
Ashbrook Rd @ Ashbrook Ct							\$234,900		
School St @ Gilbo								\$242,000	
Winchester St @ Key Rd*									
Flashing Signals									
Court St @ Vernon St			\$35,000						
Washington St @ Vernon St**			\$5,000						
Washington St @ Gilsun St									\$79,000
Maple Ave @ Melody Ave									\$79,000
Annual Total	\$190,900	\$196,800	\$242,700	\$208,800	\$221,500	\$228,100	\$234,900	\$242,000	\$158,000
Program Total	\$1,923,700								

Notes: * Winchester Street @ Key Road will be replaced with a roundabout during the reconstruction of Winchester Street in FY20-21

** Washington Street @Vernon Street was replaced in 2010 and may only need the controllers to be upgraded.

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Traffic Signal Replacement Program

Project Number: 90111
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Manual of Uniform Traffic Control Devices
 Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Transportation
 V.O.I.C.E.: Continually Assess Facilities and Infrastructure
 Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The City owns and operates 8 traffic signals and 5 flashing traffic signals. These signals are critical to the safe, efficient, and effective operation of the City's transportation network, and range in age from approximately 8 years old to over 30 years old. The current components (signal heads, cross arms, pedestrian crossing signals, etc.) are not in compliance with the latest edition of the Manual or Uniform Traffic Control Devices (MUTCD). The signal controllers use old technology (such as wire loops for detection); only allow for basic timing programming; do not allow for connectivity between signals, or allow for the efficient collection of data. The City's transportation system sees a higher volume of traffic at different periods and experiences a greater mix of users (older operators, higher levels of pedestrians and bicyclists) than was originally envisioned when many of these signals were installed.

Today's traffic control technology allows for signals to communicate with each other for the establishment of different time settings for different hours of the day, days of the week, and times of the year. These controllers use wireless technologies (such as an optical, blue tooth, WIFI, and radio) to control signal operations and relay information. Signal systems can now be remotely accessed for diagnostics or adjustments. The signals can be programmed to send their own reports when problems occur resulting in more efficient responses and higher levels of availability. It is proposed that the City embark on a phased replacement program. This will allow the City to establish the technology it wants to use and spread the cost out. It is estimated that the cost for the replacement of a full traffic signal system is between \$140,000 - \$160,000 a calendar year (2017 cost). It is anticipated that signal replacement would start with Central Square.

This project is funded, wholly or in part, from the Transportation Improvement Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 32 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design				28,635	29,520	36,405	31,320	33,225	159,105
Construction / Implementation				162,265	167,280	206,295	177,480	188,275	901,595
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$190,900	\$196,800	\$242,700	\$208,800	\$221,500	\$1,060,700
FUNDING									
Current Revenue				50,000	50,000	50,000	75,000	75,000	300,000
Capital Reserve				140,900	146,800	192,700	133,800	146,500	760,700
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$190,900	\$196,800	\$242,700	\$208,800	\$221,500	\$1,060,700

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Beaver Brook Flood Mitigation

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

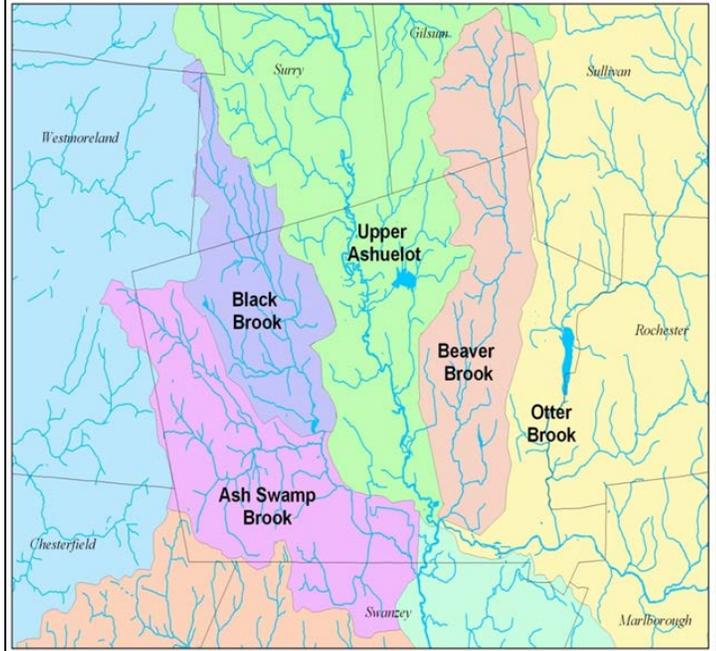
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The Beaver Brook flows along the east side of the City through residential neighborhoods. It then empties into the Ashuelot River near the intersection of Main Street and Route 101. This brook has a history of overflowing its banks and causing significant flood damage. In 2005, 2012, and 2013 large areas of the City along the brook were impacted by floodwaters. The City also experiences impacts from climate change with more intense and more frequent rain events. This project will perform a hydrologic and hydraulic analysis of the Beaver Brook watershed for various storm events (5, 10, 50, 100, and 500 year(s)). The City will use the latest rain data to perform this analysis. This project will allow the City to develop a flood management master plan for Beaver Brook. Strategies within this plan may include the creation of floodwater storage areas; identification of obstructions that need to be removed; and upgrade of properties that could be considered for floodproofing, or removal to address flooding. This will also support a number of high-priority projects in the City's 2013 Hazard Mitigation Plan.

In 2016, City staff met with the Army Corps of Engineers (USACE) to discuss a collaborative project. Under this arrangement, the USACE will perform this analysis with the City being responsible for a 50% match in consulting fees after the first \$100,000. The City will benefit from a more detailed analysis and recommendations for future flood mitigation projects.

Prior CIP's have authorized funds for the detailed hydrologic and hydraulic analysis. This work is expected to be completed by the end of 2020. The City anticipates that the project will result in recommendations for projects designed to decrease the frequency and severity of flooding along Beaver Brook. Funds are requested in FY25 & FY 26 to begin implementing the recommended projects.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						500,000	500,000		1,000,000
Property/Equip. Acquisition									0
Other - Debt Issuance						3,000	3,000		6,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$503,000	\$503,000	\$0	\$1,006,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded						503,000	503,000		1,006,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$503,000	\$503,000	\$0	\$1,006,000

FLOOD MANAGEMENT PROJECTS

The table below outlines approximate priorities and costs for planned flood management projects.

Street	Objective and Scope of Work	2019 estimated cost ⁽²⁾	Planned Construction year	Inflation adjust. (3% per year)	Construction year estimated cost**
Roxbury Street ⁽¹⁾	Reduce localized street flooding in the Vernon St. / Elm St. area. Replace the existing brick drainage pipe along Roxbury St. between Central Sq. and Beaver Brook with a larger-diameter pipe.	\$868,757	2021	\$52,907	\$921,700
Ashuelot Street	A private developer plans to expand the Ashuelot River Park into the empty parcel between the existing park and Ashuelot St. The City drainage pipelines under this parcel are undersized and in poor condition. This project will increase the capacity of these pipes and allow park development to proceed.	\$189,869	2021	\$11,563	\$201,400
Carpenter Street / Church Street	Reduce localized street flooding in the Church St. area. Construct a new larger-diameter drainage pipe between Beaver Brook in Carpenter Park, then along Carpenter St. to Church St. Phase 1 of several phases in this neighborhood.	\$657,428	2022	\$60,961	\$718,400
Gilbo Ave ⁽³⁾	Replace deteriorated corrugated metal pipes between Main St. and School St. Work planned in preparation for the Arts Corridor revitalization project.	\$562,986	2022	\$52,204	\$615,200
Central Square	Reduce localized street flooding on Court St. and side Streets from Central Sq. to Mechanic St. Replace the existing drainage pipe along Central Sq. between Court St. and Roxbury St. with a larger-diameter pipe.	\$441,048	2023	\$55,355	\$496,400
Main Street	Reduce localized street flooding on Main St. Replace the existing 8" clay drain pipe between Eagle Ct. and Water St. with a larger-diameter pipe.	\$322,881	2023	\$40,524	\$363,400
Key Road	Existing 48" diameter corrugated metal pipe that crosses Key Rd. has deteriorated in several locations and is causing roadway sinkholes. Replace the existing pipe and repair the roadway.	\$86,099	2024	\$13,713	\$99,800
Charles Street	Reduce drainage issues to properties west and downhill of Charles Street. Extend a new drainage pipe from George St. along Charles St.	\$132,295	2024	\$21,071	\$153,400
Court Street	An existing stone and corrugated metal drainage pipe underneath the roadway between Evergreen Ave. and Windsor Ct. has deteriorated in several locations and is causing undermining of the roadway and a critical water main. Replacement is difficult due to limited access and traffic control. Replace the existing deteriorated pipe using trenchless technology.	\$200,000	2026	\$45,975	\$246,000
Probate Street / Church Street	Reduce localized street flooding in the Church St., Probate St., and Roxbury St. area. Replace existing drain pipe with a larger-diameter pipe along Church St. and Probate St. between Carpenter St. and Roxbury St. Phase 2 of several phases in this neighborhood.	\$600,326	2026	\$137,999	\$738,300
Edwards Street / Church Street	Reduce localized street flooding in the Church St., Edwards St., and Roxbury St. area. Replace existing drain pipe with a larger-diameter pipe along Church St. and Edwards St. between Carpenter St. and Roxbury St. Phase 3 of several phases in this neighborhood.	\$522,221	2028	\$159,159	\$681,400
Colonial Drive	Reduce localized street flooding. Replace existing corrugated metal drainage pipes between Colonial Dr. and the Tenant Swamp behind Keene Middle School.	\$350,000	2030	\$134,482	\$484,500

Notes:

- 1) Funding for the Roxbury Street Project is spread over two years (FY 20 & FY21). Construction will be in FY21.
- 2) All costs include funding for design, construction contingencies, and construction oversight as applicable.
- 3) The costs for this work are included in the "Arts & Culture Corridor - General Fund" project request.

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Flood Management Projects

Project Number: 90298-ZZ

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The City is experiencing changes in its weather patterns. Severe weather events are occurring at a higher frequency. Keene is experiencing rainfall events that are of short duration and high intensity. The stormwater system was constructed over the last 100 years with different design standards. As a result of these more intense rain events, the City's stormwater system cannot handle the resulting flows. This causes localized street flooding that impacts the community and individual properties. The City is addressing the changing patterns and their impacts through a series of short-term and long-term goals. These include ongoing maintenance and inspection of the stormwater system; identification of small improvements; and watershed analysis. The City has identified areas that have repetitive localized flooding issues.

Based on recent experience, these larger drainage projects require a year or more to plan, design, and obtain required permits. Therefore, for each of the construction projects listed on the preceding page, design costs are planned for the year prior.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design	131,115	107,760	128,970	37,980		147,645		102,210	655,680
Construction / Implementation	371,493	620,492	610,640	730,830	215,220		836,655		3,385,330
Property/Equip. Acquisition									0
Other-Debt Issuance	2,392	4,748	4,390	5,190			5,345		22,065
TOTAL	\$505,000	\$733,000	\$744,000	\$774,000	\$215,220	\$147,645	\$842,000	\$102,210	\$4,063,075
FUNDING									
Current Revenue					215,220	147,645		102,210	465,075
Capital Reserve									0
Debt Funded	505,000	733,000	744,000	774,000			842,000		3,598,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$505,000	\$733,000	\$744,000	\$774,000	\$215,220	\$147,645	\$842,000	\$102,210	\$4,063,075

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Stormwater Spot Repairs

Project Number: 90022-ZZ
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain transportation network and manage stormwater to reduce the potential for flooding



PROJECT DESCRIPTION/JUSTIFICATION

The Public Works Department uses a multi-pronged approach to sustaining the City's stormwater drainage system. The capturing, removal and treatment of stormwater are critical to maintaining the condition of the City's streets and other impervious systems. The City maintains over 80 miles of storm drains and over 5,000 catch basins. This project sets aside funding for spot repairs to the stormwater system based in part, from the camera inspection program funded in the drainage cleaning funding request. This includes removing blockages and addressing isolated deficiencies to ensure the system works at capacity.

Work under this program is typically coordinated with roadway rehabilitation projects in order to correct problems with the drains before the road is resurfaced.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		68,800	70,900	73,000	75,200	77,500	79,800	82,200	527,400
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$68,800	\$70,900	\$73,000	\$75,200	\$77,500	\$79,800	\$82,200	\$527,400
FUNDING									
Current Revenue		68,800	70,900	73,000	75,200	77,500	79,800	82,200	527,400
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$68,800	\$70,900	\$73,000	\$75,200	\$77,500	\$79,800	\$82,200	\$527,400

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Stormwater Management System Analysis

Project Number: 90193-ZZ

Physical Location: Various

Project Status: Ongoing CIP

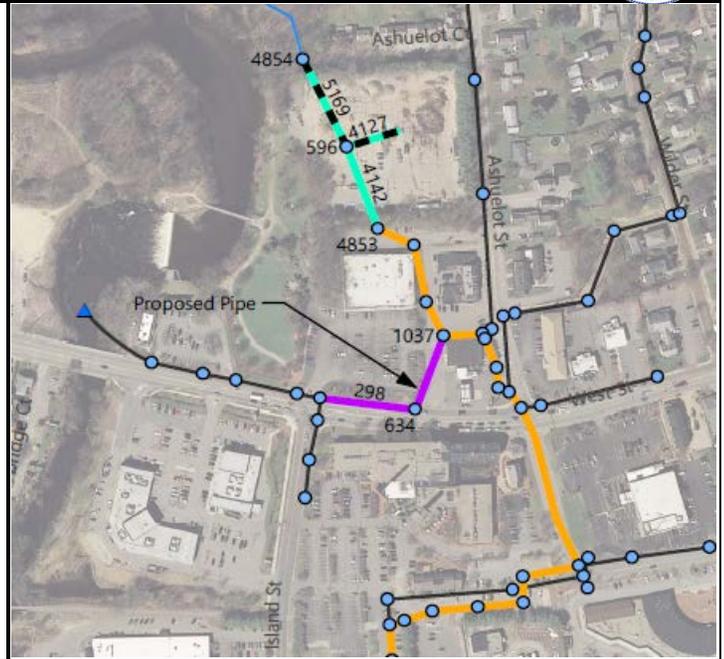
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funds to perform hydraulic analysis of the various watersheds throughout the City. It also provides funding for analysis of flood-prone areas. The analysis will provide information to help identify potential mitigation projects. It is proposed to start reviews within the Beaver Brook watershed. A component of this project is to review areas that are prone to street flooding (Roxbury and Gurnsey Streets, Church and Carpenter Streets, Winchester and Ralston Streets, etc.) to determine if there are low impact, low-cost changes or improvements that can be completed to relieve the flooding. Results from this work will be incorporated into future CIP requests or operating budgets depending on the scope of the improvement.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		42,400	43,700	45,000	46,400	47,800	49,200	50,700	325,200
Construction / Implementation									0
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$42,400	\$43,700	\$45,000	\$46,400	\$47,800	\$49,200	\$50,700	\$325,200
FUNDING									
Current Revenue			43,700	45,000	46,400	47,800	49,200	50,700	282,800
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other - Project Balance		42,400							42,400
TOTAL	\$0	\$42,400	\$43,700	\$45,000	\$46,400	\$47,800	\$49,200	\$50,700	\$325,200

DRAINAGE LINING PROJECTS

The table below outlines approximate priorities and costs for planned drainage pipe lining projects.

Street	Objective and Scope of Work	2018 estimated cost**	Planned Construction year	Inflation adjust. (3% per year)	Construction year estimated cost**
Colony Court	An existing corrugated metal pipe that runs between the homes on Colony Ct. and Gilsum St. has deteriorated. Line the pipes and limit disturbance to private properties.	\$82,944	2023	\$13,211	\$96,200
Woodbury Street	An existing corrugated metal pipe that runs between the homes on Woodbury St, Gilsum St., and Ellis Ct. has deteriorated. Line the pipes and limit disturbance to private properties.	\$118,800	2024	\$23,053	\$141,900
Emerald Street - Phase 1	The existing corrugated metal pipe between Mill Creek and Wilson St. has deteriorated and is causing roadway settlement. Line the existing drainage pipes between Mill Creek and Ralston St. Phase 1 of Drainage pipe lining on Emerald St.	\$132,336	2025	\$30,421	\$162,800
Emerald Street - Phase 2	The existing corrugated metal pipe between Mill Creek and Wilson St. has deteriorated and is causing roadway settlement. Line the existing drainage pipes between Ralston St. and Wilson St. Phase 2 of Drainage pipe lining on Emerald St.	\$110,256	2026	\$29,413	\$139,700
Maple Avenue	A deteriorated 24-inch diameter corrugated metal pipe crosses from Dale Dr. across private property, underneath Maple Ave., and across the Keene Middle School property before discharging into the Tenant Swamp. Line the pipes and limit disturbance to private properties and the school.	\$108,480	2027	\$33,062	\$141,500

** All costs include 10% for construction contingencies, 10% for engineering design, 10% for construction administration, and 1% for supervision

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Drainage Pipe Lining

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The City currently has an inventory of approximately 20.2 miles of metal drainage pipes. Over 17 miles were installed before 1980. The majority of these pipes have now exceeded their anticipated 30-year service life and will need to be replaced or repaired. The total cost to replace these pipes exceeds \$3.2 million.

In the summer of 2017, a short section of metal drainage pipe near the Baker Street bridge over Beaver Brook collapsed, causing the closure of the westbound lane for several months. We can expect this type of disruptive failure to continue.

The proposed funding would allow the pre-1980 pipes to be lined in place over a period of 30 years. It is likely that some segments will be unsuitable for lining due to advanced deterioration. In these cases, more costly replacement or spot repairs will be needed. Therefore, the actual time to complete this work will likely exceed 40 years.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				96,200	141,900	162,800	139,700	141,500	682,100
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$96,200	\$141,900	\$162,800	\$139,700	\$141,500	\$682,100
FUNDING									
Current Revenue				96,200	141,900	162,800	139,700	141,500	682,100
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$96,200	\$141,900	\$162,800	\$139,700	\$141,500	\$682,100

2021 - 2027 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project Name: Salt Shed Replacement

Project Number: 90002-21
 Physical Location: Rose Lane
 Project Status: New Project
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

Due to the sale of the property at 560 Main Street, the existing salt shed must be demolished and a new salt shed erected. Under the terms of the sale agreement, the City is able to utilize the existing salt shed for a period of three years. This means a new salt shed must be available prior to the snow and ice control season in 2022-23. Given the relatively short time available to construct a new salt shed, design and bidding must occur prior to the end of FY21/22 and construction beginning in July 2022 and completed by October 2022.

This project will be partially funded from the sale of the 560 Main Street property.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		105,000							105,000
Construction / Implementation			144,081	436,319					580,400
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$105,000	\$144,081	\$436,319	\$0	\$0	\$0	\$0	\$685,400
FUNDING									
Current Revenue				436,319					436,319
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources - Sale of Property		105,000	144,081						249,081
TOTAL	\$0	\$105,000	\$144,081	\$436,319	\$0	\$0	\$0	\$0	\$685,400

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PARKING FUND

A special revenue fund for accounting for the operations, maintenance, and capital outlay needs of the municipal parking area. The Parking Fund is intended to be self-supporting and revenues derived from parking meters, lots, and facilities are recorded in this fund.

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Parking Fund

The management of parking has several overarching goals, which are immediately related to the economic health and vitality of Downtown Keene, the heart of our community and region. Our Parking Management System helps create a downtown that is attractive and welcoming to visitors, downtown residents and employees, and the citizens of Keene. It helps ensure the correct mix and availability of parking which supports economic activity and increases the value of the downtown property.

Parking spaces (1386) and parking lots (9) are intended to provide reasonable access to businesses and properties making it critical to businesses that cannot provide their own on-site parking. Without public parking, businesses would not be viable and downtown Keene would not be the regional economic engine that it is. Effective parking management moves vehicles and keeps an open supply of spaces for customers to access businesses.

Funding to support parking management is derived from metered and pay-station parking spaces, permits from reserved parking spaces, and fines and forfeits. In FY19 nearly 60,000 customers parked at metered on-street spaces, 9,500 at metered parking lot spaces, 242 reserved spaces, and 180 leased spaces translating into 70,000 transactional visitors served. These revenues provide resources necessary for improvements and maintenance to parking spaces, lots, facilities and the downtown. The beauty and vibrancy of Keene's downtown attract and retain businesses, residents, visitors ...everything you need is here to live, work, and play.

Parking Fund

2021 - 2027 Capital Improvement Program Summary

<u>Project Name</u>	<u>2020/2021</u>	<u>2021/2022</u>	<u>2022/2023</u>	<u>2023/2024</u>	<u>2024/2025</u>	<u>2025/2026</u>	<u>2026/2027</u>	<u>TOTAL</u>
CR Appropriation: City Hall Parking Facility	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 210,000
CR Appropriation: Wells Street Parking Facility	30,000	30,000	30,000	30,000	30,000	30,000	30,000	210,000
Deck Lights - Wells Street	-	52,800	-	-	-	-	-	52,800
Lower Deck Paving - City Hall	-	-	-	57,400	-	-	-	57,400
Lower Deck Paving - Wells Street	-	-	98,200	-	-	-	-	98,200
Parking Smart Meter Technology	-	-	-	450,000	-	-	-	450,000
Structural Repairs - Wells Street	-	55,100	-	-	-	-	-	55,100
Surface Maintenance	-	51,300	-	-	53,000	-	-	104,300
TOTAL CAPITAL PROGRAM	\$ 60,000	\$ 219,200	\$ 158,200	\$ 567,400	\$ 113,000	\$ 60,000	\$ 60,000	\$ 1,237,800

PROJECT FUNDING DETAIL

Reserve Funded Projects

Deck Lights - Wells Street	\$ -	\$ 52,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,800
Lower Deck Paving - City Hall	-	-	-	57,400	-	-	-	57,400
Lower Deck Paving - Wells Street	-	-	98,200	-	-	-	-	98,200
Structural Repairs - Wells Street	-	55,100	-	-	-	-	-	55,100
Total: Reserve Funded Projects	\$ -	\$ 107,900	\$ 98,200	\$ 57,400	\$ -	\$ -	\$ -	\$ 263,500

Projects Funded with Debt

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with Debt	\$ -							

Capital Reserve Appropriations

Capital Reserve: City Hall Parking Facility	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 210,000
Capital Reserve: Wells Street Parking Facility	30,000	30,000	30,000	30,000	30,000	30,000	30,000	210,000
Total: Capital Reserve Appropriations	\$ 60,000	\$ 420,000						

Projects Funded with Cash

Parking Smart Meter Technology	\$ -	\$ -	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ 450,000
Surface Maintenance	-	51,300	-	-	53,000	-	-	104,300
Total: Projects Funded with Cash	\$ -	\$ 51,300	\$ -	\$ 450,000	\$ 53,000	\$ -	\$ -	\$ 554,300

Subtotal: Uses of Cash	\$ 60,000	\$ 111,300	\$ 60,000	\$ 510,000	\$ 113,000	\$ 60,000	\$ 60,000	\$ 974,300
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(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM	\$ 60,000	\$ 219,200	\$ 158,200	\$ 567,400	\$ 113,000	\$ 60,000	\$ 60,000	\$ 1,237,800
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New Cash Requirement FY 21-27: Reconciliation

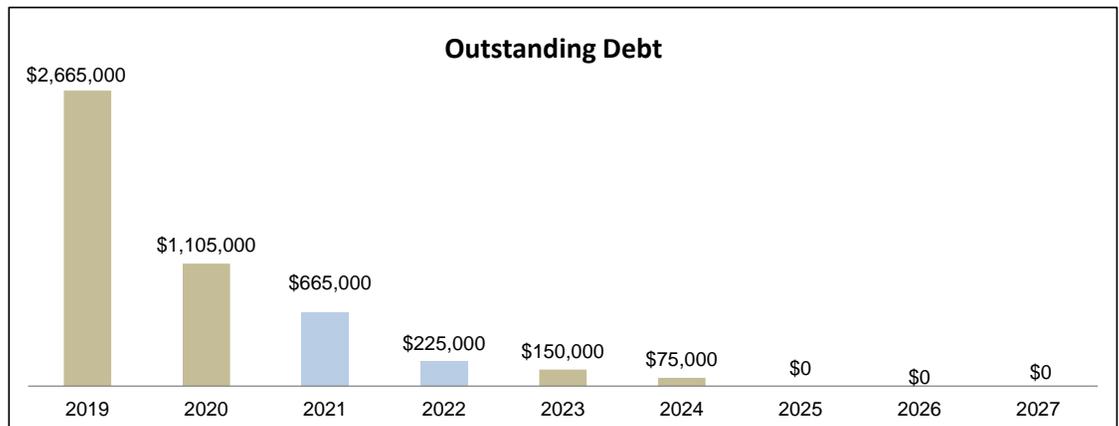
Total: Uses of Cash	\$ 60,000	\$ 111,300	\$ 60,000	\$ 510,000	\$ 113,000	\$ 60,000	\$ 60,000	\$ 974,300
Use of Retained Earnings/Project Balance	-	-	-	-	-	-	-	-
New Funds Needed	\$ 60,000	\$ 111,300	\$ 60,000	\$ 510,000	\$ 113,000	\$ 60,000	\$ 60,000	\$ 974,300

Parking Fund

2021 - 2027 CIP Debt Summary

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing and Authorized Debt	\$1,105,000	\$665,000	\$225,000	\$150,000	\$75,000	\$0	\$0
New Issues Proposed	-	-	-	-	-	-	-
Principal Paid	(440,000)	(440,000)	(75,000)	(75,000)	(75,000)	0	0
Total Existing Debt & Issues Proposed	\$665,000	\$225,000	\$150,000	\$75,000	\$0	\$0	\$0

	<u>Issue</u>	<u>Term</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing & Authorized Debt Service (P & I)			\$469,175	\$455,975	\$82,500	\$79,500	\$76,500	\$0	\$0
<u>Proposed Debt Service CIP FY21</u>									
N/A									
<u>Proposed Debt Service CIP FY22</u>									
N/A									
<u>Proposed Debt Service CIP FY23</u>									
N/A									
<u>Proposed Debt Service CIP FY24</u>									
N/A									
<u>Proposed Debt Service CIP FY25</u>									
N/A									
<u>Proposed Debt Service CIP FY26</u>									
N/A									
<u>Proposed Debt Service CIP FY27</u>									
N/A									
Total CIP 21-27 Debt Service Proposed			0	0	0	0	0	0	0
Total Projected Debt Service: Parking Fund			\$469,175	\$455,975	\$82,500	\$79,500	\$76,500	\$0	\$0



Parking Fund

City Hall Parking Deck Capital Reserve

The purpose of the City Hall Parking Deck Capital Reserve is for the repair and replacement of existing infrastructure, systems, and equipment.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Lower Deck Paving				(57,400)			
Total Expenditures	\$0	\$0	\$0	(\$57,400)	\$0	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Estimated Investment Earnings	688	842	996	864	1,018	1,173	1,329
Total Receipts	\$30,688	\$30,842	\$30,996	\$30,864	\$31,018	\$31,173	\$31,329
Estimated End of Year Reserve Balance							
	\$138,322	\$169,164	\$200,160	\$173,624	\$204,642	\$235,815	\$267,144

Parking Fund

Wells Street Parking Deck Capital Reserve

The purpose of the Wells Street Parking Facility Capital Reserve is for the repair and replacement of existing infrastructure, systems, and equipment.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Deck Lights		(52,800)					
Lower Deck Paving			(98,200)				
Structural Repairs		(55,100)					
Total Expenditures	\$0	(\$107,900)	(\$98,200)	\$0	\$0	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Wells Street TIF District	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Estimated Investment Earnings	1,304	921	584	737	891	1,045	1,201
Total Receipts	\$31,304	\$30,921	\$30,584	\$30,737	\$30,891	\$31,045	\$31,201
Estimated End of Year Reserve Balance	\$262,063	\$185,084	\$117,468	\$148,205	\$179,096	\$210,141	\$241,342

2021 - 2027 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project Name: Surface Parking Lot Maintenance

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

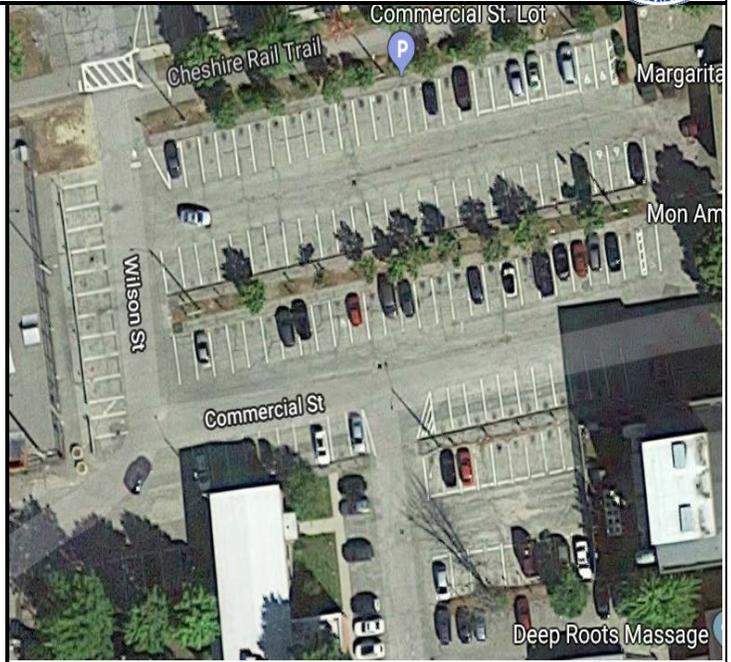
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Investing maintenance funds and providing adequate maintenance to City parking facilities



PROJECT DESCRIPTION/JUSTIFICATION

The City of Keene owns six surface parking lots. These are located at Gilbo Avenue (East and West), Wells Street/Roxbury Plaza, Commercial Street, Elm Street, and the Library Annex. These lots are continually assessed for their condition. This project provides rehabilitation of the lots to maintain their function.

Funds are budgeted to perform crack sealing and surface sealing on the Gilbo West and Commercial Street lots in FY22. At that time, the pavement in Gilbo West will be 11 years old and Commercial Street lot will be 7 years old.

A similar treatment is proposed for the Library Annex, Elm Street, Wells Street/Roxbury Plaza, and Gilbo East lots in FY25. At that time, the pavement in these lots will range from 7 years old to 10 years old.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			51,300			53,000			104,300
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$51,300	\$0	\$0	\$53,000	\$0	\$0	\$104,300
FUNDING									
Current Revenue			51,300			53,000			104,300
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$51,300	\$0	\$0	\$53,000	\$0	\$0	\$104,300

2021 - 2027 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project Name: City Hall Parking Structure Maintenance

Project Number: 90081

Physical Location: Main Street

Project Status: Ongoing CIP

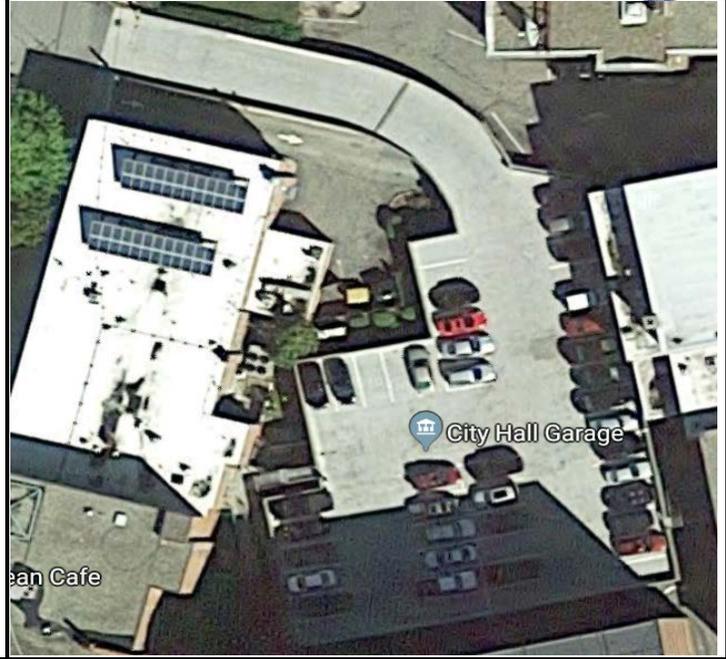
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Investing maintenance funds and providing adequate maintenance to City parking facilities



PROJECT DESCRIPTION/JUSTIFICATION

Experience over time has shown that capital improvements beyond normal maintenance, are required approximately every four years, in order to maintain the structures in good condition. This project provides periodic maintenance to extend the life of the City Hall parking structure.

In FY24, the City proposes to resurface the asphalt pavement on the lower deck of the City Hall parking structure.

This project is funded, wholly or in part, from the City Hall Parking Deck Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 119 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation					57,400				57,400
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$57,400	\$0	\$0	\$0	\$57,400
FUNDING									
Current Revenue									0
Capital Reserve					57,400				57,400
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$57,400	\$0	\$0	\$0	\$57,400

2021 - 2027 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project Name: Wells Street Parking Structure Maintenance

Project Number: 90041

Physical Location: Wells Street

Project Status: Ongoing CIP

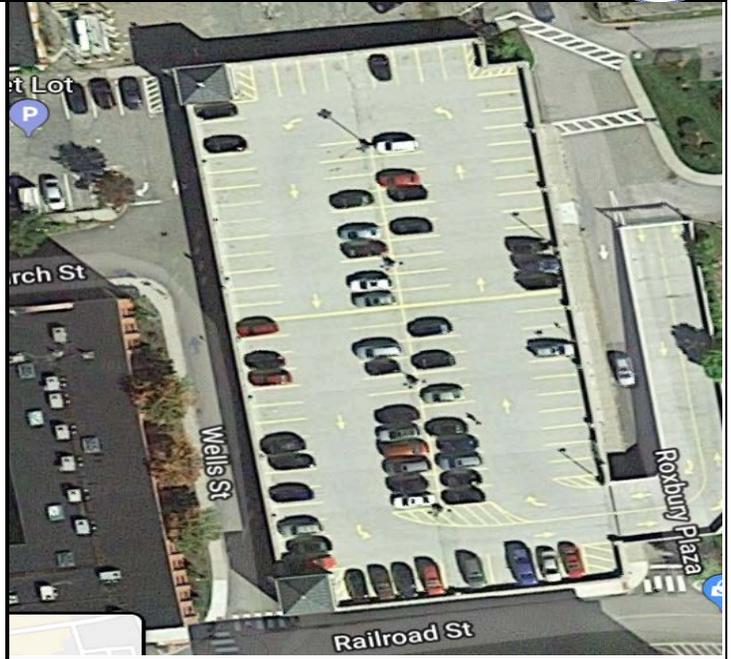
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Investing maintenance funds and providing adequate maintenance to City parking facilities



PROJECT DESCRIPTION/JUSTIFICATION

Experience over time has shown that capital improvements beyond normal maintenance, are required approximately every four years, in order to maintain the structures in good condition. This project provides periodic maintenance to extend the life of the Wells Street parking structure

In 2018, the City completed an evaluation and prepared an Operations and Maintenance Plan for the structure. That analysis identified an estimated \$55,100 in needed repairs. Items to be addressed during this project include: miscellaneous concrete spall and crack repairs; leaking expansion joints; cleaning and painting metal surfaces (where needed); spot repair of decking membrane; and replacing stairwell lighting with LED fixtures. These repairs are planned for FY22.

In FY23, the City proposes to resurface the asphalt pavement on the lower deck of the Wells Street parking structure.

This project is funded, wholly or in part, from the Wells Street Parking Deck Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 120 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			55,100	98,200					153,300
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$55,100	\$98,200	\$0	\$0	\$0	\$0	\$153,300
FUNDING									
Current Revenue									0
Capital Reserve			55,100	98,200					153,300
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$55,100	\$98,200	\$0	\$0	\$0	\$0	\$153,300

Single-Space Smart Meter (SSM) Program

The City of Keene is a central business hub for residents and visitors, with the population nearly double on any given day. Many of these people use parking services to conduct business, as well as explore the vibrant and historic downtown. With the recent addition of the Walldog murals and future initiatives, Keene is more and more a destination city.

Credit card use is a long-standing payment option, with 75% of adults owning at least one card and 80% using cards for everyday purchases. There are daily comments from motorists about not being able to use a credit card to pay for parking in Keene, or the need to obtain coins, as smart parking technology has become a norm in most cities. Without this convenience, motorists often risk receiving a violation or avoid visiting downtown altogether. New England cities with comparable populations that have invested in smart meters include:

Arlington, MA	Concord, MA	Hanover, NH
Bar Harbor, ME	Falmouth, MA	Montpelier, VT
Brattleboro, VT	Gardner, MA	Portsmouth, NH

Half of the cities with smart meters have installed all at once; others have funded annually for a phased rollout. These cities, as well as smart meter vendors, have cited that the average purchase when credit card options are available increased by 30%. Similarly, with the ParkMobile app in Keene, transactions have significantly increased the past five years from 7,416 to more than 51,985 per year. However, there are many persons and visitors with other apps that do not want to pay by phone. At the pay stations in the public parking lots, the average purchase is about \$1.50 per transaction, which is nearly double the average purchase when coins are used. With multiple payment options and convenience, people stay downtown longer when able.

FY24	SMART METER COSTS			
ITEM	Unit Price	Central SQ (43)	Main ST/CSQ (143)	All City Meters (449)
SSM Solar Mech (+1-yr warranty)	\$ 475.00	\$ 20,425.00	\$ 67,925.00	\$ 213,275.00
3 Cell Battery Packs	\$ 35.00	\$ 1,505.00	\$ 5,005.00	\$ 15,715.00
<i>Battery Charging Assembly</i>	\$ 115.00	\$ 115.00	\$ 115.00	\$ 115.00
Housing with vault	\$ 249.00	\$ 10,707.00	\$ 35,607.00	\$ 111,801.00
Coin Can with lock	\$ 45.00	\$ 1,935.00	\$ 6,435.00	\$ 20,205.00
<i>Yoke Assembly (twin mounts)</i>	\$ 75.00	\$ 1,575.00	\$ 5,400.00	\$ 16,875.00
Installation	\$ 19.93	\$ 856.99	\$ 2,850.00	\$ 6,650.00
Freight	\$ 55.94	\$ 2,405.42	\$ 8,000.00	\$ 25,000.00
<i>Comms Gateway Fee (month 1)</i>	\$ 5.75	\$ 247.25	\$ 822.25	\$ 2,581.75
Program Funding Request: 2024	\$ 1,075.62	\$ 39,771.66	\$ 132,159.25	\$ 412,217.75

FY24	SMART METER OPTIONS			
ITEM	Unit Price	Central SQ (43)	Main ST/CSQ (143)	All City Meters (449)
Decorative base	\$ 60.00	\$ 2,580.00	\$ 8,580.00	\$ 26,940.00
Decorative sleeve	\$ 49.00	\$ 2,107.00	\$ 7,007.00	\$ 22,001.00
Optional Funding: 2024	\$ 109.00	\$ 4,687.00	\$ 15,587.00	\$ 48,941.00

FY25+	ONGOING OPERATIONAL COSTS			
ITEM	Unit Price	Central SQ (43)	Main ST/CSQ (143)	All City Meters (449)
Comms Gateway (per meter/mo.)	\$ 5.75	\$ 2,967.00	\$ 9,867.00	\$ 30,981.00
<i>Transaction Fee per card (est.)</i>	\$ 0.13	\$ 536.64	\$ 1,784.64	\$ 5,603.52
Return Cost for Repairs	\$ 95.00	<i>AS NEEDED</i>	<i>AS NEEDED</i>	<i>AS NEEDED</i>
Annual Program Funding: 2025+	\$ 100.88	\$ 3,503.64	\$ 11,651.64	\$ 36,584.52

2021 - 2027 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project Name: Smart Meters

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Economic Development

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Modernizing by investing in infrastructure and parking services that expand payment choices to support a vibrant downtown. With the recent Walldog murals, Keene is more and more a destination City.



PROJECT DESCRIPTION/JUSTIFICATION

Technology, with convenience and efficiency, has dramatically changed the way municipalities conduct business and provide services. The replacement of the City's original 1940's coin-only parking meters with smart parking meters will allow the public to use other forms of payment, such as credit cards, debit cards, and pre-paid cards, as well as coins to pay for parking via a simple, intuitive user interface. Advanced technology through cellular communication will report each meter activity to a central back-office management system. This will provide the City with financial and use information by meter location, and send real-time, proactive alerts about any malfunctions; minimizing meter repair and down time, lost revenue, and public frustration. Currently, mechanical meter usability is monitored by staff, sometimes via complaints from customers.

The projected cost of replacing the 449 coin-only meters with single-space smart meters is \$450,000. Actual costs of downtown maintenance, improvements, and parking operations are funded by parking fees. Future projects will be based on parking studies and/or a parking master plan. Peer cities that have installed smart meters have experienced a significant revenue gain from meter credit card capability and convenience.

Smart meters communicate wirelessly through cellular data, therefore it connects to the cellular network as long as it is within the cellular carrier's coverage via cell towers. The City can choose the best carrier for this area that has the most consistent connection. If the cellular service is interrupted, it will not affect transactions by credit card or coin insertion. The smart meter will hold any transaction data it receives, and send it to the back office system once it reconnects, thus, no lapse in service. However, this is very rare as there are two strong cellular providers in the Keene area, both of which are available via smart meter technology.

Staff has investigated the benefits of various technologies to determine what type of smart meter will best fit the needs of the City.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition					450,000				450,000
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$450,000	\$0	\$0	\$0	\$450,000
FUNDING									
Current Revenue					450,000				450,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$450,000	\$0	\$0	\$0	\$450,000

2021 - 2027 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project Name: Wells Street Deck Lights

Project Number: 90041
 Physical Location: Wells Street
 Project Status: New Project
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Investing maintenance funds and providing adequate maintenance to City parking facilities



PROJECT DESCRIPTION/JUSTIFICATION

The Wells Street parking structure was constructed in 1998 and since that time the downtown and the vibrancy have changed. The activities in the downtown have shifted towards dining and entertainment resulting in having more people out in the late evening and after dark. The Wells Street parking facility is one of the parking areas located in the downtown and the only public parking area one along the east side of downtown. The lighting was perceived as adequate but as more people are using the downtown later into the night the first-floor area is perceived to not have sufficient and to some people, the area feels unsafe.

The proposed project would add lighting to the ground floor of the parking structure. The funding would provide for lighting design and the installation of lighting fixtures and the necessary electrical work. It is anticipated that the lighting will use LED technology to minimize energy consumption and reduce carbon footprint. There will be an increase in the operating budget for additional electrical use.

This project is funded, wholly or in part, from the Wells Street Parking Deck Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 120 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design			8,800						8,800
Construction / Implementation			44,000						44,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$52,800	\$0	\$0	\$0	\$0	\$0	\$52,800
FUNDING									
Current Revenue									0
Capital Reserve			52,800						52,800
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$52,800	\$0	\$0	\$0	\$0	\$0	\$52,800

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SOLID WASTE FUND

A special revenue fund for accounting for the activities of the transfer station and recycling operations and for post-closure costs associated with the landfill. The Solid Waste Fund is intended to be self-supporting.

Description	Page
Solid Waste CIP Overview & Summary	130-131
Solid Waste Fund Debt Summary	132
Solid Waste Capital Reserve	
Transfer/Recycling Center Capital Reserve	133
Solid Waste Fund Multi-Year Projections	134
Solid Waste Fund Projects	
• Recycling Equipment Replacement	135
• Weight Scale Replacement	136
• Refurbish Interior Facility	137
• Pavement Replacement	138

Solid Waste Fund

The Keene Solid Waste Division is focused on the protection of human health and the environment through the activities and actions required to manage waste from its inception to its final disposal. This includes collection, transport, treatment, and disposal of waste together with monitoring and regulation. Proper management of waste prevents the spread of disease and reduces air and water pollution associated with the disposal of waste material.

The City of Keene Solid Waste Division operates under a public/private partnership. The Solid Waste Division employs seven full time and four part-time employees to manage the operations of the Transfer Station and Recycling Center. The Solid Waste Division sub-contracts the transportation and disposal of refuse from the Transfer Station and transportation of commodities from the Recycling Center. Residential collection service is performed by private contractors under a permit system administered by the City. Commercial collection service is performed by private contractors, but the City does not have a permit system for commercial collection.

The City of Keene Solid Waste Division is structured as a special revenue fund where fees for services and revenue from the sale of commodities cover the majority of the expenses. The Solid Waste Division is able to continue operating in this manner due to a combination of a flow control ordinance which directs all waste generated in Keene to the Solid Waste Facility, a business relationship with Waste Management of New Hampshire to transport and dispose of the refuse from the Transfer Station in addition to a contracted tonnage brought to the facility by Waste Management of New Hampshire from outside Keene at a set tipping fee. The sale of commodities has generated over \$400,000 of income each year as well as avoiding the cost of disposing of these commodities. No property tax revenue supports the Solid Waste Division. The Solid Waste Division operates 8 cost centers with revenues and expenses in excess of \$4.1M.

The Keene Transfer Station processes over 30,000 tons of solid waste and the Keene Recycling Center sorts over 6,000 tons of recyclable material per year. The mission of the City of Keene Solid Waste Division is to provide solid waste facilities that maximize diversion of the waste stream in an efficient, economical and environmentally sensitive manner. To support that mission, City Council voted in 1996 to support a hierarchy of disposal practices to guide future solid waste operations in Keene by emphasizing the diversion of waste to the greatest extent possible.

The Solid Waste Division operations support a quality built environment for our future by fostering renewable energy and efficient use of resources through reduction, reuse, recycling, and composting as well as promoting recycling services for both commercial and residential users. The City's waste diversion efforts also support a unique natural environment by being a leader in promoting and supporting initiatives that work toward community sustainability. Reducing community greenhouse gas emissions through waste reduction promotion, recycling, management of landfill gas through flaring methane gas, and provides primary power to the recycling center and transfer station via a biofuel generator which uses 100% post-consumer vegetable oil to generate electricity at the Solid Waste Facility to meet climate action plan targets, and supports the movement towards a carbon-neutral community.

Solid Waste Fund

2021 - 2027 Capital Improvement Program Summary

Project Name	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	TOTAL
CR Appropriation: Recycling/Transfer Facility	\$ 70,000	\$ 70,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 75,000	\$ 75,000	\$ 525,000
Interior Improvements	-	7,000	150,000	-	-	-	-	157,000
Pavement Replacement	-	-	-	-	145,000	-	-	145,000
Recycling Equipment Replacement	-	75,000	-	50,000	-	-	-	125,000
Weight Scale Replacement	-	-	92,000	-	-	-	-	92,000
TOTAL CAPITAL PROGRAM	\$ 70,000	\$ 152,000	\$ 317,000	\$ 130,000	\$ 225,000	\$ 75,000	\$ 75,000	\$ 1,044,000

PROJECT FUNDING DETAIL

Reserve Funded Projects

Interior Improvements	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
Pavement Replacement	-	-	-	-	145,000	-	-	145,000
Recycling Equipment Replacement	-	75,000	-	50,000	-	-	-	125,000
Weight Scale Replacement	-	-	92,000	-	-	-	-	92,000
Total: Reserve Funded Projects	\$ -	\$ 75,000	\$ 242,000	\$ 50,000	\$ 145,000	\$ -	\$ -	\$ 512,000

Projects Funded with Debt

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with Debt	\$ -							

Capital Reserve Appropriations

Capital Reserve: Recycling/Transfer Facility	\$ 70,000	\$ 70,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 75,000	\$ 75,000	\$ 525,000
Total: Capital Reserve Appropriations	\$ 70,000	\$ 70,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 75,000	\$ 75,000	\$ 525,000

Projects Funded with State Grant

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant	\$ -							

Projects Funded with Cash

Interior Improvements	\$ -	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,000
Total: Projects Funded with Cash	\$ -	\$ 7,000	\$ -	\$ 7,000				

Subtotal: Uses of Cash	\$ 70,000	\$ 77,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 75,000	\$ 75,000	\$ 532,000
(Capital Reserve Appropriations plus Projects Funded with Cash)								

TOTAL CAPITAL PROGRAM	\$ 70,000	\$ 152,000	\$ 317,000	\$ 130,000	\$ 225,000	\$ 75,000	\$ 75,000	\$ 1,044,000
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New Cash Requirement FY 21-27: Reconciliation

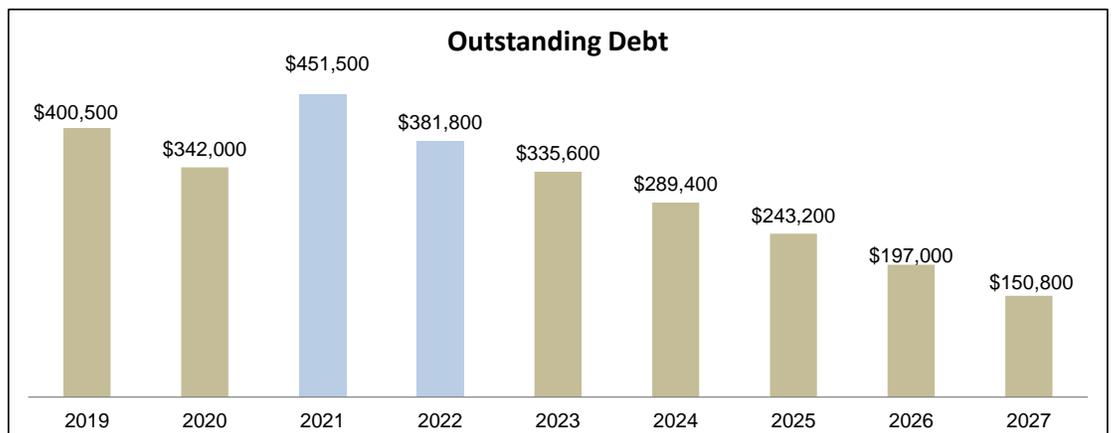
Total: Uses of Cash	\$ 70,000	\$ 77,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 75,000	\$ 75,000	\$ 532,000
Use of Retained Earnings/Project Balance	-	-	-	-	-	-	-	-
New Funds Needed	\$ 70,000	\$ 77,000	\$ 75,000	\$ 80,000	\$ 80,000	\$ 75,000	\$ 75,000	\$ 532,000

Solid Waste Fund

2021 - 2027 CIP Debt Summary

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing and Authorized Debt	\$510,000	\$451,500	\$381,800	\$335,600	\$289,400	\$243,200	\$197,000
New Issues Proposed	-	-	-	-	-	-	-
Principal Paid	(58,500)	(69,700)	(46,200)	(46,200)	(46,200)	(46,200)	(46,200)
Total Existing Debt & Issues Proposed	<u>\$451,500</u>	<u>\$381,800</u>	<u>\$335,600</u>	<u>\$289,400</u>	<u>\$243,200</u>	<u>\$197,000</u>	<u>\$150,800</u>

	<u>Issue</u>	<u>Term</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing & Authorized Debt Service (P & I)			\$77,395	\$88,916	\$62,173	\$60,075	\$57,977	\$55,879	\$53,781
<u>Proposed Debt Service CIP FY21</u>									
N/A									
<u>Proposed Debt Service CIP FY22</u>									
N/A									
<u>Proposed Debt Service CIP FY23</u>									
N/A									
<u>Proposed Debt Service CIP FY24</u>									
N/A									
<u>Proposed Debt Service CIP FY25</u>									
N/A									
<u>Proposed Debt Service CIP FY26</u>									
N/A									
<u>Proposed Debt Service CIP FY27</u>									
N/A									
Total CIP 21-27 Debt Service Proposed			0	0	0	0	0	0	0
Total Projected Debt Service: Solid Waste Fund			\$77,395	\$88,916	\$62,173	\$60,075	\$57,977	\$55,879	\$53,781



Solid Waste Fund

Transfer/Recycle Facility Capital Reserve

The purpose of the Transfer/Recycling Center Capital Reserve is for the repair and replacement of existing infrastructure, systems, and equipment.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Facility Interior Improvements			(150,000)				
Facility Pavement Replacement					(145,000)		
Recycling Equipment Replacement		(75,000)		(50,000)			
Weight Scale Replacement			(92,000)				
Total Expenditures	<u>\$0</u>	<u>(\$75,000)</u>	<u>(\$242,000)</u>	<u>(\$50,000)</u>	<u>(\$145,000)</u>	<u>\$0</u>	<u>\$0</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	70,000	70,000	75,000	80,000	80,000	75,000	75,000
Estimated Investment Earnings	1,046	1,026	197	348	24	399	776
Total Receipts	<u>\$71,046</u>	<u>\$71,026</u>	<u>\$75,197</u>	<u>\$80,348</u>	<u>\$80,024</u>	<u>\$75,399</u>	<u>\$75,776</u>
Estimated End of Year Reserve Balance	\$210,283	\$206,309	\$39,506	\$69,854	\$4,878	\$80,277	\$156,053

Solid Waste Fund

2021 - 2027 Capital Improvement Program Multi-Year Projections

	ACTUAL FY 17/18	ACTUAL FY 18/19	BUDGET FY 19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23 ⁽¹⁾	PROJECTED FY23/24 ⁽¹⁾	PROJECTED FY24/25 ⁽¹⁾	PROJECTED FY25/26 ⁽¹⁾	PROJECTED FY26/27 ⁽¹⁾
REVENUES										
Charges for Services	\$ 4,740,065	\$ 5,018,731	\$ 4,725,068	\$ 5,169,293	\$ 5,272,679	\$ 5,330,732	\$ 5,437,905	\$ 5,552,164	\$ 5,653,550	\$ 5,765,321
Other Financing Sources	49,787	69,369	42,700	35,000	27,500	20,000	20,000	10,000	10,000	10,000
Use of Surplus			121,585							
Bond Issue			168,000							
Capital Reserve			300,000				50,000	145,000		
Miscellaneous		195								
TOTAL REVENUES	\$ 4,789,852	\$ 5,088,295	\$ 5,357,353	\$ 5,204,293	\$ 5,375,179	\$ 5,592,732	\$ 5,507,905	\$ 5,707,164	\$ 5,663,550	\$ 5,775,321
EXPENDITURES										
Management/Admin.	\$ 594,808	\$ 624,876	\$ 626,586	\$ 640,498	\$ 656,510	\$ 669,641	\$ 683,033	\$ 696,694	\$ 710,628	\$ 724,840
Transfer/Recycling Facility	140,752	180,924	134,839	185,447	190,083	193,885	197,763	201,718	205,752	209,867
Landfill / Operations	2,925,381	3,056,340	2,936,818	3,132,749	3,211,067	3,275,289	3,340,794	3,407,610	3,475,762	3,545,278
Recycling	597,561	611,709	580,577	627,002	642,677	655,530	668,641	682,014	695,654	709,567
Household Hazardous Waste	38,017	18,012	99,156	18,462	18,924	19,302	19,688	20,082	20,484	20,893
Demolition Transfer/Disposal	176,792	188,098	153,124	192,800	197,620	201,573	205,604	209,716	213,911	218,189
Landfill Monitoring	17,653	18,246	73,275	18,702	19,170	19,553	19,944	20,343	20,750	21,165
Landfill Gas System	72,985	166,835	139,138	171,006	175,281	178,787	182,362	186,010	189,730	193,524
Debt Service	48,135	47,318	80,840	77,395	88,916	62,173	60,075	57,977	55,879	56,997
SUBTOTAL	\$ 4,612,084	\$ 4,912,358	\$ 4,824,353	\$ 5,064,061	\$ 5,200,249	\$ 5,275,732	\$ 5,377,905	\$ 5,482,164	\$ 5,588,550	\$ 5,700,321
CAPITAL	50,000	65,000	533,000	70,000	77,000	317,000	130,000	225,000	75,000	75,000
TOTAL EXPENDITURES	\$ 4,662,084	\$ 4,977,358	\$ 5,357,353	\$ 5,134,061	\$ 5,277,249	\$ 5,592,732	\$ 5,507,905	\$ 5,707,164	\$ 5,663,550	\$ 5,775,321
NET REVENUE (EXPENSE)	\$127,768	\$110,937	\$0	\$70,232	\$97,930	\$0	\$0	\$0	\$0	\$0

Projected Fund Balance End of Year \$2,514,958 \$2,463,605 \$2,561,535 \$2,561,535 \$2,561,536 \$2,561,536 \$2,561,536 \$2,561,536 \$2,561,536 \$2,561,536

1) The Waste Management contract expires December 31, 2021 (FY22). A provision in the contract allows for up to three (3) additional one (1) year terms to the existing contract. Revenue projections are based on a minimum amount of revenue in order to cover total expenditures without utilizing fund balance. Negotiations between the City of Keene and Waste Management are anticipated to begin in the early fall of 2020. If the contract is terminated a new RFP will be issued in the spring of 2021.

2021 - 2027 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project Name: Recycling Equipment Replacement

Project Number: 90069
 Physical Location: 55 Old Summit Road
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Renewable Energy and Efficient Use of Resources

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Allows for continued diversion of the waste stream through recycling



PROJECT DESCRIPTION/JUSTIFICATION

In 2020 the Keene Recycling Center will be 26 years old. The Solid Waste Division currently contracts scheduled/preventative maintenance on all equipment to extend the life of it where possible. Only equipment that no longer functions properly, affects facility efficiency, or represents a safety hazard, is replaced. Equipment expected to be replaced over the next several years includes the eddy current separator (for aluminum cans), cross belt magnet (for steel cans), and infeed conveyor.

An established capital reserve account funds the repair/replacement of major pieces of equipment at the Recycling Center. It is expected that within the next several years, assuming operations continue using dual-stream recycling technology, that the cross belt magnet and eddy current separator, and infeed conveyor may require replacement (note that sometimes a piece of equipment can be rebuilt negating the need for replacement in the near term. If a piece of equipment can be rebuilt that is typically funded through the operating budget and would push a full replacement cost out several years). A comprehensive inspection will be performed as part of regular O & M in FY20 to determine where the replacement is anticipated. However, a placeholder for these three pieces of equipment has been retained in FY22 and FY24.

This project is funded, wholly or in part, from the Transfer/Recycle Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 133 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition			75,000		50,000				125,000
Other									0
TOTAL	\$0	\$0	\$75,000	\$0	\$50,000	\$0	\$0	\$0	\$125,000
FUNDING									
Current Revenue									0
Capital Reserve			75,000		50,000				125,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$75,000	\$0	\$50,000	\$0	\$0	\$0	\$125,000

2021 - 2027 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project Name: Weight Scale Replacement

Project Number: 90168-23
 Physical Location: 55 Old Summit Road
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Accurately weigh inbound and outbound material to ensure the cost of services are properly accounted



PROJECT DESCRIPTION/JUSTIFICATION

A properly functioning scale is critical to the solid waste division operation. The existing in-ground weight scale will have over 20 years of service in 2023. While the scale is regularly serviced, there are components that simply wear out over time. All inbound and outbound material is weighed including waste and recycling. It is these weights that determine the revenue the City receives from customers, as well as the expenses the City pays to vendors. The State of New Hampshire Bureau of Weights and Measures provides the City's certifications that the scale is operating properly, and consistently calibrated to ensure accuracy. Replacement of the scale will ensure continued certification and accuracy in weighing the material. The private contractor engaged to perform annual maintenance and service on the scale and assess the condition of the scale each year. If the replacement of the scale can be pushed out it will. This request is considered a placeholder for the eventual replacement of the scale.

This project is funded, wholly or in part, from the Transfer/Recycle Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 133 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design				5,000					5,000
Construction / Implementation				87,000					87,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$92,000	\$0	\$0	\$0	\$0	\$92,000
FUNDING									
Current Revenue									0
Capital Reserve				92,000					92,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$92,000	\$0	\$0	\$0	\$0	\$92,000

2021 - 2027 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

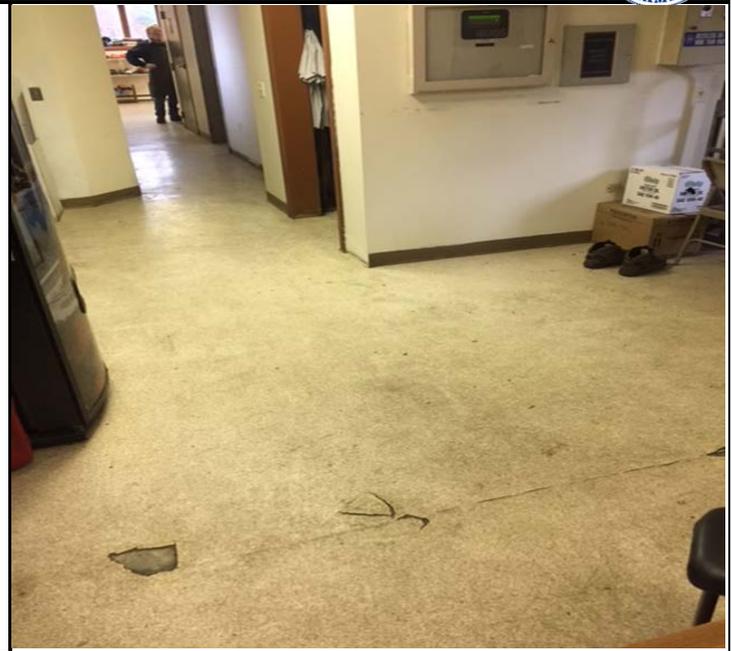
Project Name: Refurbish Interior Facility

Project Number: 90184-22
 Physical Location: 55 Old Summit Road
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide clean, safe facilities for employees to perform their duties



PROJECT DESCRIPTION/JUSTIFICATION

The Keene Recycling Center was built in 1994. In 2023 it will be 29 years old. In its existence, there have been no interior updates. The facility is in need of flooring replacement, along with updates to the entire office layout, sanitary facilities, locker rooms, and break rooms to include the installation of shower facilities for staff. The operations control center located above the existing balers also needs to be re-worked to reflect the administrative services required. The cost for interior renovations has been updated through an estimate from a private contractor to perform the work required. The cost estimate will be further refined as a design is developed (the design cost has been moved up a year to allow for the time-consuming process of design development and permitting).

This project is funded, wholly or in part, from the Transfer/Recycle Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 133 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design			7,000						7,000
Construction / Implementation				150,000					150,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$7,000	\$150,000	\$0	\$0	\$0	\$0	\$157,000
FUNDING									
Current Revenue			7,000						7,000
Capital Reserve				150,000					150,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$7,000	\$150,000	\$0	\$0	\$0	\$0	\$157,000

2021 - 2027 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project Name: Pavement Replacement

Project Number: TBD

Physical Location: 55 Old Summit Road

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain safe access to Solid Waste facilities



PROJECT DESCRIPTION/JUSTIFICATION

The 89,000 square feet of asphalt surfaced areas at the solid waste facility will be 30 years old in 2024 and are already showing signs of deterioration. Spot repair has been effective to date, however, the wear and tear placed on the paved surfaces continue to further deteriorate them to the point where spot repair is no longer feasible. This project proposes to mill, shim, and overlay the paved surfaces at the solid waste facility to provide safe access to the public using the facility. Projections are based on a \$1.60 per square foot cost for 2" mill, shim and overlay in 2017. This figure is inflated by 3% per year for the 2025 project.

This project is funded, wholly or in part, from the Transfer/Recycle Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 133 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						145,000			145,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$145,000	\$0	\$0	\$145,000
FUNDING									
Current Revenue									0
Capital Reserve						145,000			145,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$145,000	\$0	\$0	\$145,000

SEWER FUND

An enterprise fund used to account for the operations, maintenance, and capital outlay needs of the sewer collection and treatment systems. The Sewer Fund ensures that revenues from user charges and other miscellaneous revenue sources fully fund the operational, maintenance and capital needs of the public sewer collection and treatment systems.

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Sewer Fund

Every day the City of Keene transports and treats about 3 million gallons of sewage from homes, businesses, and industries. The sewer system and wastewater treatment plant (WWTP) are intended to treat wastewater from sinks, toilets, showers, washers, and industrial processes, but are not large enough to collect and treat rain or groundwater. The wastewater system handles an average of a million more gallons a day than is produced through the drinking water sources; reflecting groundwater infiltration through joints or cracks in sewer mains and inflow from illegal roof drain and sump pump connections.

Whatever its source, all of the City's wastewater drains through more than 90 miles of sewer mains and must pass through the City's main pump station located on Martell Court before it reaches the WWTP, located on Airport Road in Swanzey. The WWTP removes more than 99% of the pollutants from the wastewater before discharging it to the Ashuelot River where it must be safe for aquatic life and recreational uses.

Like any asset, Keene's sewer system requires maintenance, upgrade, and replacement to keep it functioning properly and in compliance with environmental regulations. This CIP contains projects funded by sewer rate payers that are designed to keep the City's wastewater flowing reliably and adequately treated.

Collection System: sewer mains and manholes

The City's oldest sewer mains date back to the late 1800's – when the community first decided to install a set of pipes to collect and remove sewage. Over time, sewers were installed as the community grew with materials that were intended to last 50-75 years. Approximately 25% of Keene's 90-plus miles of sewer mains are older than 75 years and are past the point of reliable service.

When a main reaches the end of its useful life, water can leak through breaks or cracks and cause the main to collapse. Cracks allow roots to grow inside the sewer mains and create a blockage and can turn into holes that provide a path for the surrounding soil to enter, creating a sinkhole above and blockage in the main. When that happens, sewage can back up into homes and businesses or spill out on to the ground.

In response to an EPA Order in 2004, the City increased its sewer main repair and replacement program and as a result, has seen a decrease in the amount of groundwater entering the sewers and decreases in the numbers of sewer main failures, blockages, and sewage overflows. The rate of forward progress seen during the work performed under EPA's Order has slowed. At the current rate of investment reflected in this CIP, the City will replace its sewer mains in 321 years. Without a significant increase in funding, the City's sewer collection system will continue to deteriorate and failures will again become more common.

Collection system improvements proposed through this CIP include correction of significant deficiencies in the sewers on Blossom Street and Colony Court where overflows occurred in 2016 and 2017. Additionally, funds are included to replace old mains as part of the downtown revitalization project. In FY23 and 24, the sewer force main that connects our pump station on Martell Court to the treatment plant will be inspected and repaired as necessary.

Shorter lengths of main replacement, in conjunction with the State of NH infrastructure projects on the bypass and the Winchester Street bridge are also included. For more than a decade, the CIP has included funds for the ongoing effort to repair deficiencies identified through a comprehensive video inspection of the sewer system performed between 2008 and 2010 and many of these deficiencies have been corrected. In the fall of 2018, the City prepared an Asset Management Plan (AMP) for our sewer mains. The AMP assigns a numerical risk score to each section of sewer main based on age, material, history of breakage and repairs, as well as the potential social, economic and environmental consequences of a failure. These risk scores, in conjunction with other planned utility and roadway projects are used to select and prioritize individual projects.

Sewage may pass through one of three smaller pump stations enroute to the treatment plant, but it all ultimately passes through the main pump station located at the end of Martell Court on the bank of the Ashuelot River. This building houses 4 large pumps that pump the wastewater almost 2 miles to the WWTP through a 30" ductile iron Force Main that was installed over 30 years ago.

The average flow at Martell Court pump station is about 2,100 gallons per minute, with peaks up to 7,000 gallons per minute in severe storm events. At those rates of flow, a breakdown at the pump station or a blockage in the force main would quickly result in sewage backing up in the mains, in the streets, in homes and businesses, and ultimately into the Ashuelot River. In FY23 funds are requested to complete a detailed inspection of the force main. It is anticipated that some repairs will be necessary, but the scope of those repairs will be determined through the inspection and will be included in future CIP. Previous estimates for replacement of the force main were about \$6 million.

In 2014, energy-efficient pumps and controls replaced 29-year old pumping equipment at Martell Court to assure equipment reliability and a new screen to remove wipes and other materials that damage equipment at the WWTP was funded in FY19. The FY20-25 CIP funds a new transformer, emergency generator and general maintenance on the 33-year old building – a new roof and repairs to insulation that protects interior ductwork.

Wastewater is treated at the WWTP, located at the end of Airport Road in Swanzey, where advanced chemical and biological treatment techniques are used to remove materials that are harmful to the environment. It was built in the early 1980's and is subject to increasingly stringent EPA regulations. To comply with new permit limits and replace aging, inefficient equipment, the first two phases of upgrades at the WWTP

were completed in 2015 and 2017, and funding for phase three begins in FY21 and continues through FY25. It includes upsizing the emergency generator, replacing ductwork insulation, sludge pumps, and plant water systems.

At a cost to our average sewer customer of \$707 per year in 2019, Keene ranks below NH's 2015 average annual sewer cost of \$712. To keep pace with the aging of all of its sewer infrastructure, Keene should continue this level of investment. A healthy community and environment are dependent on a reliable and fully functional sewage collection and treatment systems and investment in this infrastructure is important for its continued reliability.

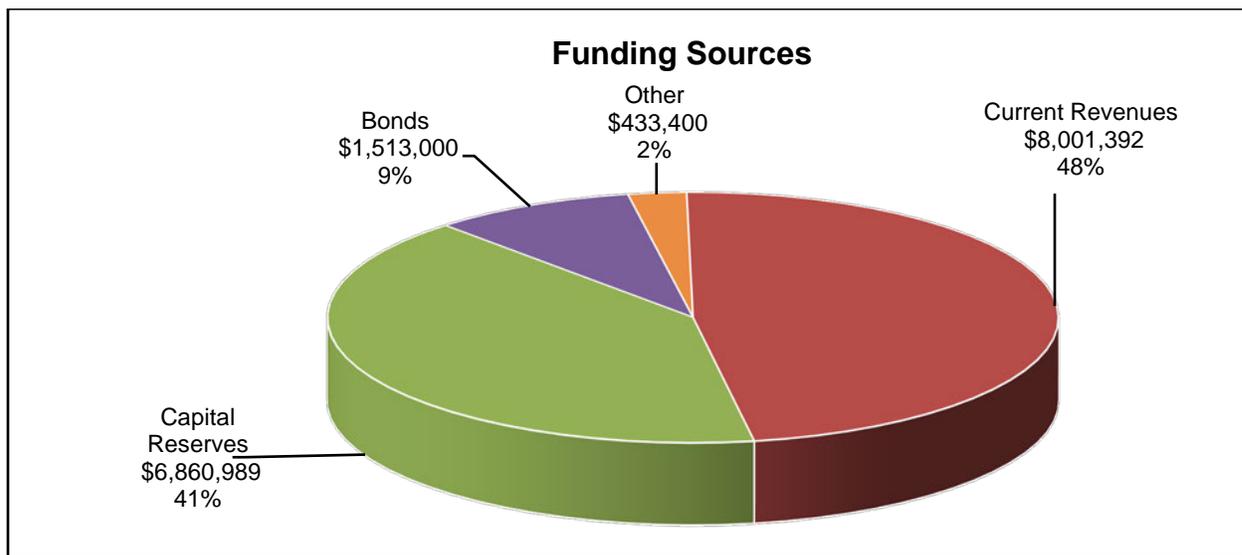
SEWER FUND

The proposed CIP includes several projects for the Sewer Fund. Over the seven-year span of the CIP, the Sewer Fund is proposing \$16,808,781, or 14% of the total CIP, for sewer improvements, infrastructure support, structural repair/lining, facility and equipment upgrades, and manhole lining.

Funding for the Sewer Fund capital projects will come from several sources. Current revenues will contribute 48%, capital reserves 41%, bonds 9%, and other sources 2%. The Sewer Fund will be reappropriating residual balances of 2 recently closed projects.

Current revenues are derived from sewer rates that are charged to customers using the sewer system. The rates are adjusted annually to reflect the current and future needs of the sewer fund.

The following chart summarizes the level of proposed sources of funding for the Sewer Fund proposed CIP.



Sewer Collection and Treatment System

The sewer collection system is a network of sewer mains (pipes) and related infrastructure that carry sewage from homes, businesses, and industries throughout the city to the wastewater treatment facility. Here the sewage is processed and treated for disposal in a safe and environmentally healthy manner.

As outlined in the proposed CIP, the combined project requests for the upgrades and maintenance of these systems totals \$16,808,781.

A. Sewer System highlights

1. Sewer Main Replacement, Repair, and Lining – the seven-year request for projects of this type total \$6,118,866.

2. Arts & Culture Corridor - sewer infrastructure support scheduled in FY 2022 for \$277,100.
3. Martell Court Pump Station Upgrade Phase 2 – replacement of the transformer and emergency backup generator in FY 2021 at a cost of \$249,000.
4. Sewer Manhole Lining – relining failing manholes currently lined with brick at a cost of \$836,700.

B. Treatment System highlights

1. Sludge Pump Replacement - that are more efficient than the pumps originally installed in 1985. The design phase is scheduled for FY21 with the 3 larger primary pumps being replaced in FY23. Total cost of this project is \$464,101.
2. Sludge Drier – that will reduce Keene's yearly total of bio-solids to approximately 1500 tons/year or a 67% reduction. The design phase is scheduled in FY25 with construction in FY27 with a total cost of \$1,163,000.
3. WWTF Access Road Repaving – resurfacing of the original pavement is scheduled in FY24 with a cost of \$583,000.

Sewer Fund

2021 - 2027 Capital Improvement Program Summary

Project Name	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	TOTAL
CR Appropriation: Martell Court	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 180,000
CR Appropriation: Sewer Infrastructure	700,000	700,000	700,000	700,000	700,000	700,000	700,000	4,900,000
CR Appropriation: Wastewater Treatment Plant	170,000	170,000	170,000	170,000	170,000	170,000	175,000	1,195,000
Martell Court Phase 2	249,000	-	-	-	-	-	-	249,000
Martell Court Roof Replacement	-	-	35,222	-	-	-	-	35,222
Sewer Infrastructure Arts & Culture Corridor	41,565	235,535	-	-	-	-	-	277,100
Sewer Infrastructure Lower Winchester Street	-	-	-	-	337,500	-	-	337,500
Sewer Main Improvements	1,513,000	328,682	409,718	698,052	515,319	730,695	510,000	4,705,466
Sewer Manhole Lining	-	-	157,600	162,300	167,200	172,200	177,400	836,700
Sewer Structural Repair/Lining	184,500	190,000	195,700	201,600	207,600	213,800	220,200	1,413,400
WWTP Access Road Repavement	-	-	-	583,000	-	-	-	583,000
WWTP Generator Replacement	290,400	-	-	-	-	-	-	290,400
WWTP HVAC Ductwork Insulation	-	-	35,892	-	-	-	-	35,892
WWTP Laboratory Renovation	143,000	-	-	-	-	-	-	143,000
WWTP Sludge Drier	-	-	50,000	-	145,000	-	968,000	1,163,000
WWTP Sludge Pump Replacement	50,000	90,000	324,101	-	-	-	-	464,101
TOTAL CAPITAL PROGRAM	\$ 3,341,465	\$ 1,744,217	\$ 2,108,233	\$ 2,544,952	\$ 2,272,619	\$ 2,016,695	\$ 2,780,600	\$ 16,808,781

PROJECT FUNDING DETAIL

Reserve Funded Projects

Martell Court Phase 2	249,000	-	-	-	-	-	-	249,000
Martell Court Roof Replacement	-	-	35,222	-	-	-	-	35,222
Sewer Infrastructure Lower Winchester Street	-	-	-	-	337,500	-	-	337,500
Sewer Main Improvements	-	328,682	409,718	698,052	515,319	730,695	510,000	3,192,466
Sewer Manhole Lining	-	-	157,600	162,300	167,200	172,200	177,400	836,700
WWTP Access Road Repavement	-	-	-	583,000	-	-	-	583,000
WWTP Sludge Drier	-	-	50,000	-	145,000	-	968,000	1,163,000
WWTP Sludge Pump Replacement	50,000	90,000	324,101	-	-	-	-	464,101
Total: Reserve Funded Projects	\$ 299,000	\$ 418,682	\$ 976,641	\$ 1,443,352	\$ 1,165,019	\$ 902,895	\$ 1,655,400	\$ 6,860,989

Projects Funded with Debt

Colony Court - Bloomer Swamp Main	1,513,000	-	-	-	-	-	-	1,513,000
Total: Projects Funded with Debt	\$ 1,513,000	\$ -	\$ 1,513,000					

Projects Funded with Grants

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant	\$ -							

Capital Reserve Appropriations

Capital Reserve: Martell Court	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 180,000
Capital Reserve: Sewer Infrastructure	700,000	700,000	700,000	700,000	700,000	700,000	700,000	4,900,000
Capital Reserve: Wastewater Treatment Plant	170,000	170,000	170,000	170,000	170,000	170,000	175,000	1,195,000
Total: Capital Reserve Appropriations	\$ 870,000	\$ 900,000	\$ 905,000	\$ 6,275,000				

Projects Funded with Cash

Sewer Infrastructure Arts & Culture Corridor	\$ 41,565	\$ 235,535	\$ -	\$ -	\$ -	\$ -	\$ -	277,100
Sewer Structural Repair/Lining	184,500	190,000	195,700	201,600	207,600	213,800	220,200	1,413,400
WWTP Generator Replacement	290,400	-	-	-	-	-	-	290,400
WWTP HVAC Ductwork Insulation	-	-	35,892	-	-	-	-	35,892
WWTP Laboratory Renovation	143,000	-	-	-	-	-	-	143,000
Total: Projects Funded with Cash	\$ 659,465	\$ 425,535	\$ 231,592	\$ 201,600	\$ 207,600	\$ 213,800	\$ 220,200	\$ 2,159,792

Subtotal: Uses of Current Cash	\$ 1,529,465	\$ 1,325,535	\$ 1,131,592	\$ 1,101,600	\$ 1,107,600	\$ 1,113,800	\$ 1,125,200	\$ 8,434,792
(Capital Reserve Appropriations plus Projects Funded with Current Cash)								

TOTAL: CAPITAL PROGRAM	\$ 3,341,465	\$ 1,744,217	\$ 2,108,233	\$ 2,544,952	\$ 2,272,619	\$ 2,016,695	\$ 2,780,600	\$ 16,808,781
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New Cash Requirement FY 21-27: Reconciliation

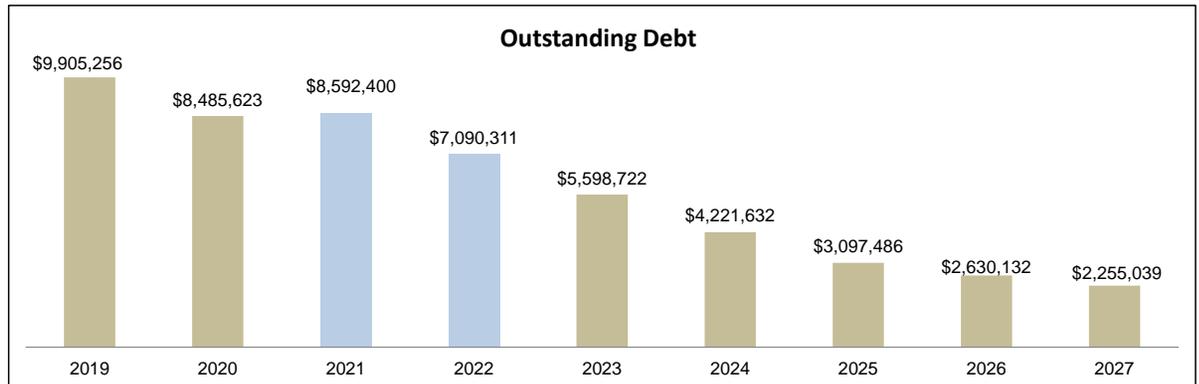
Total: Uses of Cash	\$ 1,529,465	\$ 1,325,535	\$ 1,131,592	\$ 1,101,600	\$ 1,107,600	\$ 1,113,800	\$ 1,125,200	\$ 8,434,792
Use of Retained Earnings/Project Balance	(433,400)	-	-	-	-	-	-	(433,400)
New Funds Needed	\$ 1,096,065	\$ 1,325,535	\$ 1,131,592	\$ 1,101,600	\$ 1,107,600	\$ 1,113,800	\$ 1,125,200	\$ 8,001,392

Sewer Fund

2021 - 2027 CIP Debt Summary

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing and Authorized Debt	\$8,485,623	\$8,592,400	\$7,090,311	\$5,598,722	\$4,221,632	\$3,097,486	\$2,630,132
New Issues Proposed	1,513,000	-	-	-	-	-	-
Principal Paid	(1,406,223)	(1,502,089)	(1,491,589)	(1,377,089)	(1,124,146)	(467,354)	(375,093)
Total Existing Debt & Issues Proposed	\$8,592,400	\$7,090,311	\$5,598,722	\$4,221,632	\$3,097,486	\$2,630,132	\$2,255,039

	<u>Issue</u>	<u>Term</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing & Authorized Debt Service (P & I)			\$1,613,122	\$1,577,344	\$1,535,843	\$1,390,724	\$1,109,304	\$429,328	\$324,823
<u>Proposed Debt Service CIP FY21</u>									
Colony Court-Bloomer Swamp Main	1,513,000	15	30,260	159,369	155,335	151,300	147,265	143,231	139,196
<u>Proposed Debt Service CIP FY22</u>									
N/A									
<u>Proposed Debt Service CIP FY23</u>									
N/A									
<u>Proposed Debt Service CIP FY24</u>									
N/A									
<u>Proposed Debt Service CIP FY25</u>									
N/A									
<u>Proposed Debt Service CIP FY26</u>									
N/A									
<u>Proposed Debt Service CIP FY27</u>									
N/A									
Total CIP 21-27 Debt Service Proposed			30,260	159,369	155,335	151,300	147,265	143,231	139,196
Total Projected Debt Service: Sewer Fund			\$1,643,382	\$1,736,713	\$1,691,178	\$1,542,024	\$1,256,569	\$572,559	\$464,019



Sewer Fund

Martell Court Pump Station Capital Reserve

The purpose of the Martell Court Pumping Station Capital Reserve is for the repair and replacement of major components of the plant, including equipment and building.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Martell Court Phase 2	(249,000)						
Roof Replacement			(35,222)				
Total Expenditures	<u>(\$249,000)</u>	<u>\$0</u>	<u>(\$35,222)</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	0	30,000	30,000	30,000	30,000	30,000	30,000
Estimated Investment Earnings	856	1,011	990	1,145	1,300	1,457	1,614
Total Receipts	<u>\$856</u>	<u>\$31,011</u>	<u>\$30,990</u>	<u>\$31,145</u>	<u>\$31,300</u>	<u>\$31,457</u>	<u>\$31,614</u>
Estimated End of Year Reserve Balance	\$172,145	\$203,156	\$198,924	\$230,068	\$261,369	\$292,826	\$324,440

Sewer Fund

Sewer Infrastructure Capital Reserve

The purpose of the Sewer Infrastructure Capital Reserve is for the repair and replacement of existing infrastructure, systems, and equipment including pump stations and the collection systems.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Lower Winchester Street					(337,500)		
Sewer Main Improvements		(328,682)	(409,718)	(698,052)	(515,319)	(730,695)	(510,000)
Sewer Manhole Lining			(157,600)	(162,300)	(167,200)	(172,200)	(177,400)
Total Expenditures	\$0	(\$328,682)	(\$567,318)	(\$860,352)	(\$1,020,019)	(\$902,895)	(\$687,400)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	700,000	700,000	700,000	700,000	700,000	700,000	700,000
Estimated Investment Earnings	6,058	7,945	8,648	7,890	6,329	5,346	5,436
Total Receipts	\$706,058	\$707,945	\$708,648	\$707,890	\$706,329	\$705,346	\$705,436
Estimated End of Year Reserve Balance	\$1,217,698	\$1,596,961	\$1,738,292	\$1,585,829	\$1,272,139	\$1,074,590	\$1,092,626

Sewer Fund

Wastewater Treatment Plant Capital Reserve

The purpose of the Wastewater Treatment Plant Capital Reserve is for the repair and replacement of major components of the plant, including equipment and building.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Access Road Repavement				(583,000)			
Sludge Drier			(50,000)		(145,000)		(968,000)
Sludge Pump Replacement	(50,000)	(90,000)	(324,101)				
Total Expenditures	<u>(\$50,000)</u>	<u>(\$90,000)</u>	<u>(\$374,101)</u>	<u>(\$583,000)</u>	<u>(\$145,000)</u>	<u>\$0</u>	<u>(\$968,000)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	170,000	170,000	170,000	170,000	170,000	170,000	175,000
Estimated Investment Earnings	7,095	7,531	6,548	4,516	4,663	5,537	1,599
Total Receipts	<u>\$177,095</u>	<u>\$177,531</u>	<u>\$176,548</u>	<u>\$174,516</u>	<u>\$174,663</u>	<u>\$175,537</u>	<u>\$176,599</u>
Estimated End of Year Reserve Balance	<u>\$1,426,155</u>	<u>\$1,513,686</u>	<u>\$1,316,133</u>	<u>\$907,649</u>	<u>\$937,312</u>	<u>\$1,112,848</u>	<u>\$321,448</u>

Sewer Fund

2021 - 2027 Capital Improvement Program Multi-Year Projections

REVENUES	ACTUAL FY 17/18	ACTUAL FY 18/19	BUDGET FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27
Taxes	\$36,518									
Intergovernmental	313,978	220,560	160,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Charges for Services	6,492,294	6,017,722	6,490,676	6,384,482	6,448,327	6,512,810	6,577,938	6,676,607	6,776,756	6,878,408
Miscellaneous	58,114	300,537	84,898	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Use of Surplus										
Interfund Appropriations	733,826	793,891		1,529,465	1,325,535	1,131,592	1,101,600	1,107,600	1,113,800	1,125,200
TOTAL REVENUES	\$7,634,730	\$7,332,710	\$6,735,574	\$8,113,947	\$7,973,862	\$7,844,402	\$7,879,538	\$7,984,207	\$8,090,556	\$8,203,608
EXPENSES										
Sewer Administration	\$672,602	\$582,437	\$659,920	\$676,418	\$693,328	\$707,195	\$721,338	\$732,159	\$743,141	\$754,288
Mains & Manholes	261,105	298,284	461,462	\$472,999	\$484,824	\$494,520	\$504,410	\$511,977	\$519,656	\$527,451
Services	9,772	3,282	6,837	\$7,008	\$7,183	\$7,327	\$7,473	\$7,585	\$7,699	\$7,815
Martell Court Pump Station	113,905	115,783	129,030	\$132,255	\$135,562	\$138,273	\$141,038	\$143,154	\$145,301	\$147,481
Laboratory	217,677	237,715	179,719	\$184,212	\$188,817	\$192,594	\$196,445	\$199,392	\$202,383	\$205,419
Maintenance	133,544	132,042	153,243	\$157,074	\$161,001	\$164,221	\$167,505	\$170,018	\$172,568	\$175,157
WWTP	2,504,066	2,648,719	2,692,308	2,692,308	2,719,231	\$2,773,616	\$2,829,088	\$2,871,525	\$2,914,598	\$2,958,317
Depreciation Expense	1,189,849	1,354,653	1,314,700	1,368,200	1,327,847	1,381,882	\$1,395,700	\$1,416,636	\$1,437,885	\$1,459,454
Debt Service	237,804	239,815	237,650	237,649	\$243,590	242,953	207,344	172,115	139,029	139,029
Loss on Sale of Fixed Assets	0	49,569		0	0	0	0	0	0	0
Subtotal	\$5,340,324	\$5,662,299	\$5,821,474	\$5,928,123	\$5,961,384	\$6,102,580	\$6,170,345	\$6,224,561	\$6,282,261	\$6,374,410
CAPITAL PROGRAM										
Capital Reserve Appropriations	625,000	720,000	735,000	870,000	900,000	900,000	900,000	900,000	900,000	905,000
Capital Projects-Net Interfund Transfers	108,826	73,891	179,100	659,465	425,535	231,592	201,600	207,600	213,800	220,200
Capital Project Expenditures	0	154,119	0	150,000	150,000	150,000	150,000	150,000	150,000	150,000
	\$733,826	\$948,010	\$914,100	\$1,679,465	\$1,475,535	\$1,281,592	\$1,251,600	\$1,257,600	\$1,263,800	\$1,275,200
TOTAL EXPENSES	\$6,074,150	\$6,610,309	\$6,735,574	\$7,607,588	\$7,436,919	\$7,384,172	\$7,421,945	\$7,482,161	\$7,546,061	\$7,649,610
NET REVENUE (EXPENSE)	\$1,560,580	\$722,401	\$0	\$506,359	\$536,943	\$460,230	\$457,594	\$502,047	\$544,495	\$553,998

Projected Fund Balance End of Year **\$3,369,329** **\$4,091,730** **\$4,091,730** **\$4,598,090** **\$5,135,033** **\$5,595,263** **\$6,052,857** **\$6,554,904** **\$7,099,399** **\$7,653,397**

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Arts & Culture Corridor - Sewer Infrastructure Support

Project Number: TBD

Physical Location: Downtown

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide adequate infrastructure to support the goal of vibrant downtown.



PROJECT DESCRIPTION/JUSTIFICATION

The community and private entities are considering the addition of facilities and amenities that would support and encourage the arts and creative culture in the City of Keene and region. Discussions have included the reconstruction of Gilbo Avenue from Main Street to St James Street, extension of Wilson Street, the construction of a covered pavilion near the intersection of Gilbo Avenue and School Street, the construction of a skateboard park along Gilbo Avenue, the construction of a mixed-use artist live/workspace on Eagle Court, the renovation of several existing buildings and the redesign of Rail Road Square. This project would provide for the design, replacement, and upgrade of City infrastructure to support this initiative. The stormwater, wastewater, and water infrastructure in the area date from the 1890s up to the 1960s with some systems being under capacity. It is appropriate to replace these systems prior to placing new construction over them to avoid unnecessary damage from a failure. There may be additional improvements/upgrades to support this initiative as plans are developed.

The budget requested below anticipates replacing approximately 1025 feet of clay sewer mains installed in the 1890s through the 1930s.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		41,565							41,565
Construction / Implementation			235,535						235,535
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$41,565	\$235,535	\$0	\$0	\$0	\$0	\$0	\$277,100
FUNDING									
Current Revenue		41,565	235,535						277,100
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$41,565	\$235,535	\$0	\$0	\$0	\$0	\$0	\$277,100

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Martell Court Upgrade Phase 2

Project Number: 08099-18
 Physical Location: 176 Martell Court
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Reliable operation of the City's main sewage pumping station during power outages



PROJECT DESCRIPTION/JUSTIFICATION

Phase 2 of the Martell Court Pump Station upgrade consists of the replacement of the transformer and emergency backup generator, both of which were installed when the station was built in 1985. The generator provides power to keep the station's four large raw sewage pumps operating when line power is interrupted and a generator failure would result in significant sewage overflows. The pump station would flood. Sewage would back up into buildings, into Beaver Brook, the Ashuelot River, and City streets within several hours of losing line power. The transformer converts high voltage power from the emergency generator to the lower voltage power that the pump station's equipment requires to operate when line power is interrupted.

By FY21 the generator will be 36 years old and replacement parts will be difficult to procure. This project includes all construction costs, adapting of ductwork, delivery, rigging, new exhaust, and startup. Also included is a new fuel day tank to meet the new Department of Environmental Services rules. Phase 1 of the pump station upgrade was completed in FY14 and included the replacement of four raw sewage pumps, seven gates, and their associated controls.

This project is funded, wholly or in part, from the Martell Court Pump Station Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 147 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		23,500							23,500
Construction / Implementation		225,500							225,500
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$249,000	\$0	\$0	\$0	\$0	\$0	\$0	\$249,000
FUNDING									
Current Revenue									0
Capital Reserve		249,000							249,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$249,000	\$0	\$0	\$0	\$0	\$0	\$0	\$249,000

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Martell Court Roof Replacement

Project Number: 08093-A
 Physical Location: 176 Martell Court
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Prevent costly repairs to the roof surface in the future



PROJECT DESCRIPTION/JUSTIFICATION

This project replaces the original asphalt roof at the Martell Court Pump Station. A local roofing contractor evaluated the roof and determined that it may last another 5 years or longer. Because asphalt roofs are no longer an industry-accepted roof material, the roof will be replaced with a rubber membrane. The integrity of the roof will be evaluated each year to determine if this project needs to be accelerated or pushed out.

This project is funded, wholly or in part, from the Martell Court Pump Station Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 147 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				35,222					35,222
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$35,222	\$0	\$0	\$0	\$0	\$35,222
FUNDING									
Current Revenue									0
Capital Reserve				35,222					35,222
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$35,222	\$0	\$0	\$0	\$0	\$35,222

SEWER IMPROVEMENTS

The Sewer Improvement program is used to fund replacement or upgrade of sanitary sewer mains that are not suitable candidates for lining or spot repairs. Generally, this includes sewer mains that are undersized for current flow, do not have adequate slope, or are prone to freezing due to shallow depth. Sewers may be replaced in conjunction with other infrastructure work or as stand-alone projects.

Street	Scope of work	2017 estimated cost ⁽¹⁾	Construction year	Inflation adjust.	Construction year estimated cost ⁽¹⁾
Colony Court	Replace sewer with adverse slope that causes backups. Costs include reconstruction of roadway and sidewalk.	\$1,183,465	2021	\$272,048	\$1,455,513
	Sewer force main inspection	\$280,000	2022	\$44,597	\$324,597
Main Street	Replace approx. 1,030 feet of undersized clay sewer mains on the East side of Main Street between Washington Street and Eagle Court	\$312,600	2023	\$39,234	\$351,834
	Sewer force main rehabilitation ⁽²⁾	\$600,000	2024	\$137,724	\$737,724
Island St	Replace 1670 feet of 6-inch sewer mains along Island Street, North of the Ashuelot River	\$396,500	2025	\$76,742	\$473,242
George St.	Replace 760 feet of 6-inch sewer mains with significant structural defects	\$152,000	26	\$46,126	\$753,759
Sullivan St	Replace 2,130 feet of 6-inch sewer mains with significant structural defects	\$426,000		\$129,633	
TBD			27		\$600,000

Notes:

1) All costs include 10% for construction contingencies, 10% for engineering design, 10% for construction administration, and 1% for supervision. Future year construction assumes 3% inflation per year.

2) The scope of work for this project will be developed through the detailed inspection planned for FY22. It is anticipated that repair or replacement of some deteriorated segments will be required.

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Sewer Improvements

Project Number: 08055-ZZ
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improvement in collection system carrying capacity and reliable operation through the upgrade of existing mains and elimination of infiltration



PROJECT DESCRIPTION/JUSTIFICATION

The Sewer Improvement Program is used to fund replacement or upgrade of sanitary sewer mains that are not suitable candidates for lining or spot repairs. Generally, this includes sewer mains that are undersized for current needs, do not have adequate slope, or are prone to freezing due to shallow depth.

In FY22, the public works department will undertake a detailed inspection of the City's 2-mile long force main that conveys sewerage under pressure to the wastewater treatment plant. This 30-inch diameter ductile iron pipe was installed in 1985. Because there is no redundant system for conveying wastewater, it is not possible to interrupt flows for the inspection. A consultant will use a variety of remote sensing technologies to evaluate the pipeline for leaks, corrosion, gas pockets, and other defects while the pipeline remains in service. Funds are planned in FY24 to address any deficiencies found.

In FY23, funds are requested to address sewer system needs in conjunction with the ongoing Downtown Revitalization Project. In FY26, this program will replace some 1920's era sewer mains on Sullivan and George Streets.

This project is funded, wholly or in part, from the Sewer Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 148 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		267,016	52,775	110,659	70,986	113,064	90,000		704,500
Construction / Implementation		1,237,186	275,907	299,059	627,066	402,255	640,695	510,000	3,992,168
Property/Equip. Acquisition									0
Other-Debt Issuance		8,798							8,798
TOTAL	\$0	\$1,513,000	\$328,682	\$409,718	\$698,052	\$515,319	\$730,695	\$510,000	\$4,705,466
FUNDING									
Current Revenue									0
Capital Reserve			328,682	409,718	698,052	515,319	730,695	510,000	3,192,466
Debt Funded		1,513,000							1,513,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$1,513,000	\$328,682	\$409,718	\$698,052	\$515,319	\$730,695	\$510,000	\$4,705,466

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Sewer Structural Repair/Lining

Project Number: 08066-ZZ
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Clean Water Act; NPDES permit / RSA 485-A:13

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improvement in collection system carrying capacity and reliable operation through small repairs to existing mains and elimination of infiltration and deferring the complete main replacement



PROJECT DESCRIPTION/JUSTIFICATION

This project funds an outside contractor to make spot repairs to correct minor deficiencies to sewer mains. The project includes funds for engineering, construction, and inspection of the construction. In addition to the spot repairs, this project also funds lining in locations on roads that have very old sewers and are scheduled to be rehabilitated.

In previous years, spot repairs were prioritized based on the findings of the Priority Inspection Program (PIP) completed in 2011. Many of the highest-ranking deficiencies have now been corrected. A variety of minor deficiencies identified through the 2017 "smoke testing" program have been addressed with FY19 funding.

In 2019, the Department developed a Sewer Main Asset Management Plan, which prioritized repairs based on age, size, material, proximity to critical facilities and a variety of other risk and cost factors. Over the period covered by this CIP, we expect to rehabilitate approximately 9,000 linear feet of the most critical sewer mains, including work on Winchester St, Marlboro St., West St. and Main St.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		184,500	190,000	195,700	201,600	207,600	213,800	220,200	1,413,400
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$184,500	\$190,000	\$195,700	\$201,600	\$207,600	\$213,800	\$220,200	\$1,413,400
FUNDING									
Current Revenue		184,500	190,000	195,700	201,600	207,600	213,800	220,200	1,413,400
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$184,500	\$190,000	\$195,700	\$201,600	\$207,600	\$213,800	\$220,200	\$1,413,400

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Sewer Manhole Lining

Project Number: 08051-23
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: Clean Water Act; NPDES permit / RSA 485-A:13

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Eliminate groundwater infiltration into the treatment system and wastewater exfiltration through defects in deteriorated brick manholes



PROJECT DESCRIPTION/JUSTIFICATION

The City has an inventory of over 200 brick manholes. Typically, the bricks retain their structural integrity for many years, however, the mortar in between can deteriorate and create pathways for groundwater to infiltrate into the system, allowing bricks to fall into the mains, creating a source of blockage. Infiltration results in increased costs for pumping and treating clean water; and blockages result in sanitary sewer overflows where untreated waste is released into the environment.

This project will provide funding to rehabilitate the structures, by lining the interior surface with an epoxy-based mortar. Funding levels assume that all brick manholes will be lined over a period of 5 years, beginning in FY23. The requested funds assume that an estimated 20% of the manholes will not be in suitable condition for lining and will be replaced with new pre-cast concrete structures.

This project is funded, wholly or in part, from the Sewer Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 148 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				157,600	162,300	167,200	172,200	177,400	836,700
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$157,600	\$162,300	\$167,200	\$172,200	\$177,400	\$836,700
FUNDING									
Current Revenue									0
Capital Reserve				157,600	162,300	167,200	172,200	177,400	836,700
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$157,600	\$162,300	\$167,200	\$172,200	\$177,400	\$836,700

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Lower Winchester Street Reconstruct - Sewer Infrastructure Support

Project Number: TBD

Physical Location: Winchester Street - NH Rt 101 to Town Line

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve gateway/corridor into the City



PROJECT DESCRIPTION/JUSTIFICATION

The City has several gateway entrances into the City. One of these gateways is Winchester Street from the Swanze Town Line to the NH Rte. 101 Roundabout. This is an area of commercial, residential and industrial activities. This gateway has not been upgraded in over 30 years. Adjustments were made in 2010 to the intersection of Mathew Road and Winchester street to improve traffic turning movements. This project would involve the reconstruction of Winchester including improvements to the eight intersections along the corridor, reconfiguration of traffic lanes to improve traffic flow, the construction of sidewalks and improvements for bicycle facilities. There would be landscaping improvements to highlight the business corridor. The Winchester Street Bridge over Ash Swamp Brook would also be replaced as part of this project. The proposed funding includes 80% State funds, with 20% coming from the City of Keene. There will also be Municipal Owned Bridge Rehabilitation and Replacement (MOBRR) and State Aid Bridge Funding for the replacement of the Winchester Street bridge over Ash Swamp Brook.

The sewer infrastructure in this area of Winchester Street is from the mid-1950s. The requested funding will allow for the lining of approximately 3,970 feet of asbestos cement sewer mains of various sizes.

This project is funded, wholly or in part, from the Sewer Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 148 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						337,500			337,500
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$337,500	\$0	\$0	\$337,500
FUNDING									
Current Revenue									0
Capital Reserve						337,500			337,500
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$337,500	\$0	\$0	\$337,500

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Access Road Repaving

Project Number: TBD

Physical Location: 420 Airport Road

Project Status: Ongoing CIP

Federal / State Regulation or Law: Clean Water Act; NPDES permit / RSA 485-A:13

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain Infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The Wastewater Treatment Plant (WWTP) became operational in 1985 and will be 40 years old in 2025. A 1.5-mile-long access road provides vehicle access to the plant. Since 1985, the City has performed repairs to the road including crack sealing and spot repairs. However, the road has never been resurfaced. The overall pavement condition indicates that crack sealing will no longer prolong the life of the pavement and further degradation can result in a more extensive and expensive project in the future.

This project funds the in-place recycling of the existing asphalt with a new wearing surface from the hanger intersection at the airport to the treatment plant, including the parking areas and roads surrounding the wastewater plant itself.

This project is funded, wholly or in part, from the Wastewater Treatment Plant Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 149 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation					583,000				583,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$583,000	\$0	\$0	\$0	\$583,000
FUNDING									
Current Revenue									0
Capital Reserve					583,000				583,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$583,000	\$0	\$0	\$0	\$583,000

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Sludge Pump Replacement

Project Number: 08082
 Physical Location: 420 Airport Road
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Community Sustainability

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Appropriately timed replacement of obsolete equipment with energy-efficient models



PROJECT DESCRIPTION/JUSTIFICATION

This project includes the replacement of six sludge pumps, originally installed in 1985. These six pumps include three primary sludge pumps, two scum pumps, and one RV discharge pump.

FY21 funds engineering services to assist with the specification development and equipment selection. FY22 funds the replacement of the two scum pumps and the RV discharge pump. FY23 funds the replacement of the three larger primary sludge pumps. The replacement pumps are expected to be more energy-efficient than the existing equipment. Installing more efficient equipment is in line with the City's Vision Focus Areas, specifically Focus Area 1 "Fostering Renewable Energy and Efficient use of Resources."

This project is funded, wholly or in part, from the Wastewater Treatment Plant Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 149 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		50,000							50,000
Construction / Implementation			90,000	324,101					414,101
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$50,000	\$90,000	\$324,101	\$0	\$0	\$0	\$0	\$464,101
FUNDING									
Current Revenue									0
Capital Reserve		50,000	90,000	324,101					464,101
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$50,000	\$90,000	\$324,101	\$0	\$0	\$0	\$0	\$464,101

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Duct Insulation Replacement

Project Number: TBD

Physical Location: 420 Airport Road

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Refurbish old equipment to maintain the current level of operation and defer replacement cost



PROJECT DESCRIPTION/JUSTIFICATION

This project will replace the heating, ventilation, and air conditioning (HVAC) ductwork insulation at the Wastewater Treatment Plant (WWTP). The ductwork is important for fresh air exchange for equipment and personnel safety. The insulation protects the metal ductwork from corrosion resulting from the hydrogen sulfide gas present in wastewater. The ductwork is located directly over the raw wastewater as it first enters the plant. Therefore access for repair or cleaning is difficult. The ductwork insulation will be 38 years old at the time of replacement and is already beginning to fail as shown in the photo.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				35,892					35,892
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$35,892	\$0	\$0	\$0	\$0	\$35,892
FUNDING									
Current Revenue				35,892					35,892
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$35,892	\$0	\$0	\$0	\$0	\$35,892

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Generator Replacement

Project Number: 08061-21
 Physical Location: 420 Airport Road
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: The City's NPDES permit requires backup power to be available.
 Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To have a reliable supply of emergency power that will allow the treatment process to remain in operation when there is a power outage. Backup power is required by the City's NPDES permit



PROJECT DESCRIPTION/JUSTIFICATION

This project replaces the Wastewater Treatment Plant's (WWTP) standby generator that was installed in 1985. The generator was designed to provide backup power to the WWTP's critical equipment to allow treatment to continue when line power is interrupted. Generator replacement is recommended to retain reliability in FY20 when it is 35 years old because component failure is more likely and replacement parts are becoming harder to procure. The new generator will be larger than the current one because the existing generator is too small to handle the full equipment loading and currently some equipment must be either turned off or turned down to prevent overloading its capacity.

The WWTP's federal discharge permit requires backup power because electricity is required to maintain biological treatment and disinfection. A failure of either of these systems would result in significant violations of the discharge permit, exposing the City to legal actions and economic penalties. FY19 funds the design and FY21 funds the purchase and installation of a new, adequately sized, generator with new fuel tanks for a low sulfur fuel to meet the new EPA parameters for air regulations.

It is proposed that the unused bond proceeds from the Rose Lane project (08094) be utilized to fund this project.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		26,400							26,400
Construction / Implementation		264,000							264,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$290,400	\$0	\$0	\$0	\$0	\$0	\$0	\$290,400
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources - Project Balance		290,400							290,400
TOTAL	\$0	\$290,400	\$0	\$0	\$0	\$0	\$0	\$0	\$290,400

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Laboratory Renovation

Project Number: TBD

Physical Location: 420 Airport Road

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The wastewater treatment came online in 1985 and treats approximately 3 million gallons of wastewater every day. The Laboratory Division of Public Works is located at the Wastewater Treatment Plant and is responsible for analyzing the required compliance and processing control samples. The laboratory is vintage, early 1980's, with minimal changes occurring to the interior since the plant was built. The laboratory has continued to keep up with industry standards with regards to its analytical equipment, but the cabinets, benches, and shelving are original to the plant and have reached the end of their useful life. This project will fund a complete laboratory renovation including electrical, mechanical, HVAC, new cabinets, shelving, benches, sinks, fixtures, fume hood, ceiling tiles, and a new coat of paint.

This project will be funded using money remaining from the Wastewater Treatment Plant, Phase 2 Upgrade.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		18,000							18,000
Construction / Implementation		125,000							125,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$143,000	\$0	\$0	\$0	\$0	\$0	\$0	\$143,000
FUNDING									
Current Revenue									0
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other - Project Balance		143,000							143,000
TOTAL	\$0	\$143,000	\$0	\$0	\$0	\$0	\$0	\$0	\$143,000

2021 - 2027 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: Sludge Drier

Project Number: TBD

Physical Location: 420 Airport Road

Project Status: New Project

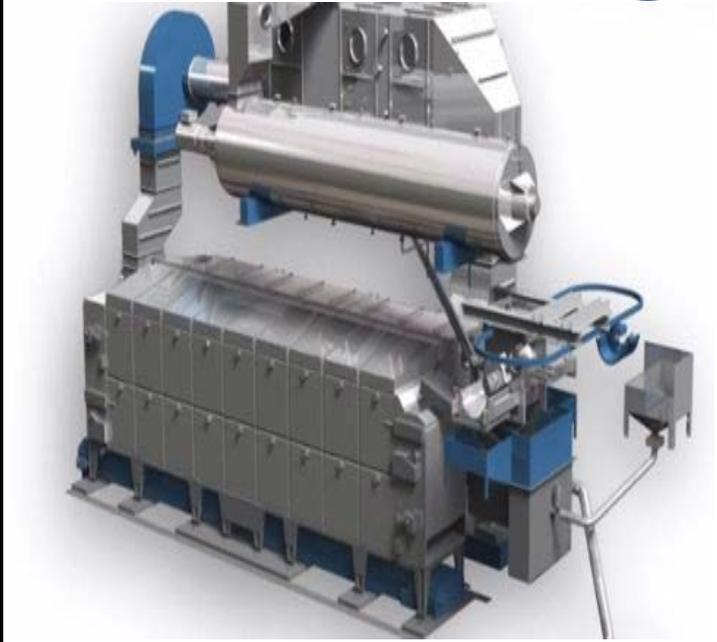
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Beneficial use for dewatered sludge material, reduction in hauling and disposal costs.



PROJECT DESCRIPTION/JUSTIFICATION

The City of Keene Wastewater Treatment Plant returns approximately 3 million gallons of treated water to the Ashuelot River every day. The plant also produces a waste product in the form of bio-solids or dewatered sludge that needs to be disposed of. Sludge is generated in liquid form throughout the treatment process and is dewatered to remove as much water as possible before being hauled away. Currently, the City's biosolids are trucked to Waste Management's (WM) landfill in Rochester, NH. Historically, the plant produced approximately 6500 tons of class B sludge every year, but with recent upgrades to the dewatering equipment has reduced that number to 4500 tons/year or about a 31% reduction.

The City of Keene executed a 10-year agreement with WM and currently pays approximately \$83/ton for hauling and disposal. Each year in October the price increases approximately by 3%, with the contract due to expire in October 2021. Because of the recent Perfluoroalkyl Substances (PFAS) issue and reduced landfill capacity, some NH municipalities are facing challenges regarding sludge disposal, with recent hauling and disposal bid prices coming in between \$140 and \$200/ton. This could mean that the City's current budget of \$364K/year for hauling and disposal could more than double in two years.

FY23 funds a feasibility assessment of the proposed equipment and will help the City develop a business case on the proposed approach. FY25 funds the equipment selection, bid specification and design portion of the project. FY27 funds the purchase and construction of a sludge drier that would produce a Class A sludge that could be used for beneficial reuse or incineration and reduce Keene's yearly total of biosolids to approximately 1500 tons/year or a 67% reduction. This project is not regulatory-driven but is a cost avoidance project.

This project is funded, wholly or in part, from the Wastewater Treatment Plant Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 149 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design				50,000		145,000			195,000
Construction / Implementation								968,000	968,000
Property/Equip. Acquisition									0
Other - Debt Issuance									0
TOTAL	\$0	\$0	\$0	\$50,000	\$0	\$145,000	\$0	\$968,000	\$1,163,000
FUNDING									
Current Revenue									0
Capital Reserve				50,000		145,000		968,000	1,163,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$50,000	\$0	\$145,000	\$0	\$968,000	\$1,163,000

WATER FUND

An enterprise fund for the accounting of the operations, maintenance, and capital outlay needs of the water treatment and distribution systems. The Water Fund ensures that revenues from user charges and other miscellaneous revenue sources fully fund the operational, maintenance and capital needs of the public water treatment and distribution systems.

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Water Fund

The residents, businesses, and industries in Keene use an average of 1.9 million gallons of clean, potable water every day for everything from tooth brushing, washing, food preparation, cleaning, fire protection, landscape watering, commercial uses, and industrial processes.

To meet this water demand, the City has three separate water supplies – none of which can meet the City’s daily needs alone. Combined though, the supplies are adequate for current demand under average precipitation conditions. Two surface water reservoirs, located in Roxbury, can store a total of 600 million gallons of water and the City owns approximately 2,400 acres of the reservoirs’ watershed land. The water in the wellfields on West and Court Streets are re-supplied by more than 300 square miles of watershed. This CIP includes an evaluation of the City’s water needs in the FY20 Water Supply Master Plan project.

Previous CIP budgets included funding for a major rehabilitation to the 1931-era dam at Babbidge Reservoir that began in the fall of the calendar year 2017 and was completed by fall of the calendar year 2018. Design work to address deficiencies to the 1910-era Woodward dam began in the spring of 2017 and construction is expected to begin in the summer of 2020. A failure of one or both of these dams would cause a significant community-wide water shortage because they provide more than half of the City’s daily water supply.

Although the raw water from all of the City’s sources is very clean, regulations require disinfection and chemical addition to make the water less acidic. The well buildings were constructed in an era with fewer treatment requirements so current treatment options are limited due to the small size of the facilities. The buildings are in need of repair and this CIP includes an evaluation of the buildings and equipment at both wellfields. The evaluation will include recommendations that will improve the future reliability and flexibility as the City responds to water quality regulations and plans for the likelihood of frequent periods of regional drought as a result of climate change. Future CIP programs will include upgrades and replacements that are identified through the evaluation process.

The City’s Drinking Water Treatment Facility turned 25 in 2018 and this CIP includes routine filter media changes, pavement repair, and equipment replacement. Changes in water quality regulations have forced changes in treatment techniques that result in more costly process operations and future CIP will include an evaluation of upgrades at the Facility.

Although the water sources are separate and each receives onsite chemical treatment, the treated water is comingled in one large water distribution system where more than 100 miles of water main delivers water to homes and businesses. The water mains range in age from brand new (less than a year old) to more than 100 years old.

The current CIP funds improvement (either lining or replacement) of water mains at the rate of about a half-mile per year. With no changes to this rate, all of the City's water mains will be replaced or lined over the next 212 years. The expected useful life of a new water main is between 80 and 120 years, depending on the material, and while mains can remain in service well past their expected life, older mains are more prone to leaks, poor flow, and breakage. When a main breaks, the effect can be significant and during a repair, entire neighborhoods may be without water, fire protection can be affected, roads can become undermined, and basements may be flooded. Without an increase in the repair/replacement budget, an increasing number of these disruptions should be expected as the distribution system ages past its expected life.

The goal of the water main rehabilitation and replacement program is to minimize main failures and to improve customers' water quality and pressure by systematically and cost-effectively rehabilitating or replacing the City's most critical water mains.

To maximize the benefit received from current funding levels, the Public Works Department developed a Water Main Asset Management Plan (AMP) in 2016 that numerically ranks each section of main based on its criticality, history of breaks, and the potential financial, social or environmental impact of a failure. Individual projects are selected based upon this ranked list, in conjunction with other planned utility and roadway improvements.

The AMP includes a 100-year rehabilitation schedule designed to keep pace with the aging infrastructure and allow staff to address the highest risk mains first. The current CIP addresses 1.8 miles of the three highest-priority water main improvement projects identified by this plan: Marlboro Street, a portion of Main Street, and a portion of Court Street. The current 7-year CIP also includes cleaning and lining 3.4 miles of mains that are in the top 15 percent of at-risk mains. Portions of Elm Street, Roxbury Street, Main Street, Meadow Road, and West Street will all be lined between FY21 and 27. To support the proposed 100-year rehabilitation schedule, investment in the water mains would have to increase to \$1.3M from the current funding level of \$0.7M.

This CIP includes funding for the ongoing gate valve replacement project. Gate valves are required to facilitate water main operation and maintenance and to control water loss during a main break. Valve failure results in an increased number of affected customers and can limit the water supply to critical assets in an emergency. Some of Keene's existing valves have been in operation for more than 100 years and cannot be relied on to function in an emergency because the functional life of a water valve is around 50 years. The current rate of funding valve replacement results in a 154-year replacement cycle. Therefore, over the long term, additional investment should be made to keep pace with the rate of valve failure.

The City's water supply is also used for fire protection, and to meet that need, our mains and storage tanks are oversized compared to the community's daily demand for water. The system has more than 850 fire hydrants. Previous CIP programs included funding to bring most of the hydrants up to current standards and stragglers continue to be

replaced through ongoing water main projects and with in-house personnel using operating budget funds.

Storing more than 5 million gallons of water, the City has six water storage tanks, most of which have had repair or replacement projects in previous CIP programs that were scheduled for FY22 and later. The Drummer Hill tank failed in March 2018, and its replacement was emergency-funded in FY19 out of capital reserves along with a new pump station to supply it. These incidents indicate that while the community is planning repair and replacement of the infrastructure on a schedule that keeps Keene's water rates lower than the state average, the infrastructure deterioration continues on a schedule of its own.

The two largest tanks, with a combined capacity of 4.5 million gallons, are located on Beech Hill – one built in 1924 the other in 1962. Because the tanks provide water pressure and fire protection for most of the community, preserving their reliable function is a department priority. They have had routine repairs and painting over the years, but they do not meet current standards and require maintenance. This CIP includes funds to correct deficiencies and perform evaluations including options to repair or replace the tanks.

The current FY21-27 CIP includes funding for projects at two of the smaller storage tanks including repairs at the Black Brook and Chapman Road storage tanks. A third project for the Drummer Hill tank that had been scheduled for FY24 was moved up to FY19 because of the tank failure in March 2018.

The City's water assets have an estimated value of more than \$115 million and an ongoing investment into their maintenance, repair, and replacement will assure that future generations enjoy safe and high-quality drinking water.

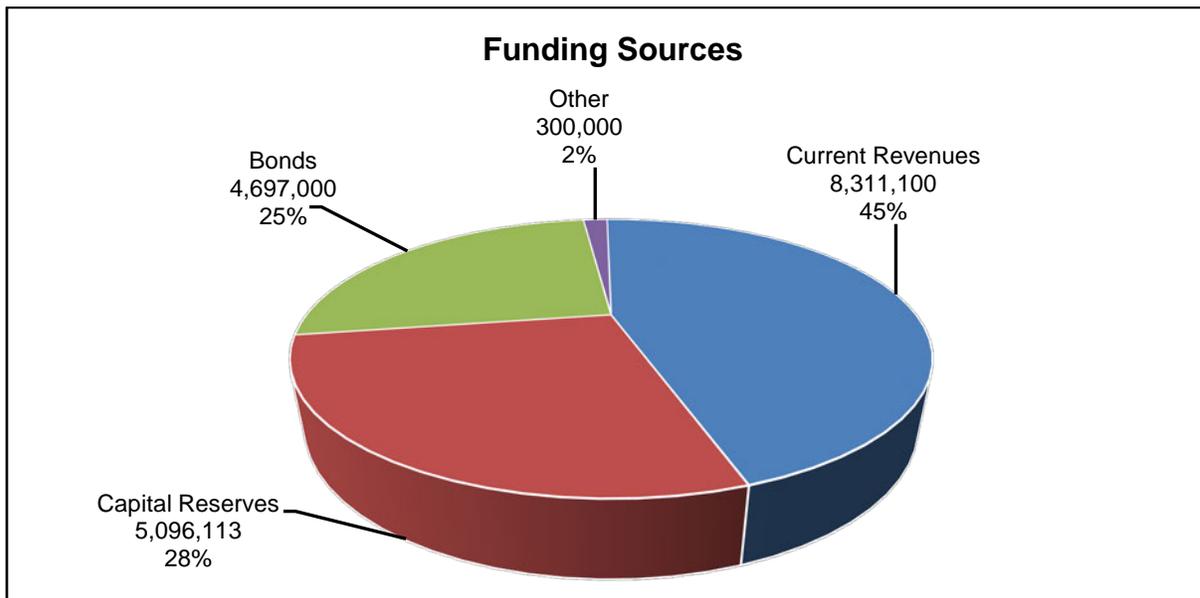
WATER FUND

The proposed CIP includes several projects for the Water Fund. Over the seven (7) year span of the CIP, the Water Fund is proposing \$18,404,213, or 16% of the total CIP, for water distribution improvements, infrastructure support, water main cleaning and lining, well field, facility and equipment upgrades, tank repairs, and water valve replacement.

Funding for the Water Fund capital projects will come from several sources. Current revenues will contribute 45%, capital reserves 28%, bonds 26%, and other sources, use of surplus, 2% in FY25.

Current revenues are derived from water rates that are charged to customers using the water system. The rates are adjusted annually to reflect the current and future needs of the Water Fund.

The following chart summarizes the level of proposed sources of funding for the Water Fund proposed CIP.



Water Distribution and Production System

The water distribution system is a network of dams, reservoirs, wells, water tanks, pump and booster stations, water mains (pipes) and related infrastructure. These systems collect and transport water to the Water Treatment Facility (WTF) for treatment, and then transport clean and healthy drinking water throughout the City for use in homes and businesses.

As outlined in the proposed CIP, the combined project requests for the upgrades and maintenance of these systems total \$18,404,213.

A. Water Distribution highlights

1. Water Distribution Improvements - the seven-year request for projects of this type total \$4,278,882.
2. Storage Tank Repairs – to 4 water storage tanks are schedules for repair between FY23 and FY25 with a total cost of \$2,722,616.
3. Water Valve Replacement – the seven-year request for water valve replacement totals \$784,500.
4. Water Main Cleaning and Lining – relining failing cast iron pipes at a cost of \$1,734,600.

B. Production System highlights

1. Well Field Upgrades – design and implementation of well field improvements are scheduled for FY23 and FY 25 with a total cost of \$1,641,590.
2. WTF Filter Media Replacement – scheduled for FY23 and F25 at a total cost of \$418,622.

Water Fund

2021 - 2027 Capital Improvement Program Summary

Project Name	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	TOTAL
CR Appropriation: Water Infrastructure	725,000	725,000	725,000	725,000	750,000	750,000	750,000	\$ 5,150,000
CR Appropriation: Water Treatment Facility	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
1.5 MG Storage Tank Repairs	-	343,667	-	-	-	-	-	343,667
3 MG Storage Tank Repairs	-	62,500	2,227,000	-	-	-	-	2,289,500
Black Brook Storage Tank Repairs	-	35,000	-	-	-	-	-	35,000
Chapman Water Tank Repairs	-	54,449	-	-	-	-	-	54,449
Emergency Generators	-	-	-	250,793	-	-	-	250,793
Water Distribution Improvements	330,470	211,246	1,237,000	115,942	999,755	1,187,246	197,223	4,278,882
Water Infrastructure Arts & Culture Corridor	36,300	205,700	-	-	-	-	-	242,000
Water Infrastructure Lower Winchester Street	-	-	-	-	300,000	-	-	300,000
Water Main Cleaning and Lining	-	-	237,700	-	596,200	443,700	457,000	1,734,600
Water Utility Work - Bridges	-	-	-	69,700	-	-	-	69,700
Water Valve Replacement	96,000	98,900	101,800	104,800	108,000	127,300	147,700	784,500
Well Field Upgrades	-	-	408,590	-	1,233,000	-	-	1,641,590
WTF Filter Media Replacement	-	203,126	-	215,496	-	-	-	418,622
WTF Instrumentation Upgrade	-	-	-	-	39,000	-	-	39,000
WTF Pavement Replacement	-	-	71,900	-	-	-	-	71,900
TOTAL CAPITAL PROGRAM	\$ 1,287,770	\$ 2,039,588	\$ 5,108,990	\$ 1,581,731	\$ 4,125,955	\$ 2,608,246	\$ 1,651,923	\$ 18,404,203

PROJECT FUNDING DETAIL

Reserve Funded Projects

1.5 MG Storage Tank Repairs	\$0	\$343,667	\$0	\$0	\$0	\$0	\$0	\$ 343,667
3 MG Storage Tank Repairs	-	62,500	-	-	-	-	-	62,500
Black Brook Storage Tank Repairs	-	35,000	-	-	-	-	-	35,000
Chapman Water Tank Repairs	-	54,449	-	-	-	-	-	54,449
Emergency Generators	-	-	-	250,793	-	-	-	250,793
Water Distribution Improvements	330,470	211,246	-	115,942	999,755	1,187,246	197,223	3,041,882
Water Infrastructure Lower Winchester Street	-	-	-	-	300,000	-	-	300,000
Water Utility Work - Bridges	-	-	-	69,700	-	-	-	69,700
Well Field Upgrades	-	-	408,590	-	-	-	-	408,590
WTF Filter Media Replacement	-	203,126	-	215,496	-	-	-	418,622
WTF Instrumentation Upgrade	-	-	-	-	39,000	-	-	39,000
WTF Pavement Replacement	-	-	71,900	-	-	-	-	71,900
Total: Reserve Funded Projects	\$330,470	\$909,988	\$480,490	\$651,931	\$1,338,755	\$1,187,246	\$197,223	\$5,096,103

Projects Funded with Debt

3 MG Storage Tank Repairs	\$ -	\$ -	\$ 2,227,000	\$ -	\$ -	\$ -	\$ -	\$ 2,227,000
Water Distribution Improvements	-	-	1,237,000	-	-	-	-	1,237,000
Well Field Upgrades	-	-	-	-	1,233,000	-	-	1,233,000
Total: Projects Funded with Debt	\$ -	\$ -	\$ 3,464,000	\$ -	\$ 1,233,000	\$ -	\$ -	\$ 4,697,000

Capital Reserve Appropriations

Capital Reserve: Water Infrastructure	\$ 725,000	\$ 725,000	\$ 725,000	\$ 725,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 5,150,000
Capital Reserve: Water Treatment Facility	100,000	100,000	100,000	100,000	100,000	100,000	100,000	700,000
Total: Capital Reserve Appropriations	\$ 825,000	\$ 825,000	\$ 825,000	\$ 825,000	\$ 850,000	\$ 850,000	\$ 850,000	\$ 5,850,000

Projects Funded with State Grant

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant	\$ -							

Projects Funded with Cash

Water Infrastructure Arts & Culture Corridor	\$ 36,300	\$ 205,700	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 242,000
Water Main Cleaning and Lining	-	-	237,700	-	596,200	443,700	457,000	1,734,600
Water Valve Replacement	96,000	98,900	101,800	104,800	108,000	127,300	147,700	784,500
Total: Projects Funded with Cash	\$ 132,300	\$ 304,600	\$ 339,500	\$ 104,800	\$ 704,200	\$ 571,000	\$ 604,700	\$ 2,761,100

Subtotal: Uses of Cash	\$ 957,300	\$ 1,129,600	\$ 1,164,500	\$ 929,800	\$ 1,554,200	\$ 1,421,000	\$ 1,454,700	\$ 8,611,100
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(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM	\$ 1,287,770	\$ 2,039,588	\$ 5,108,990	\$ 1,581,731	\$ 4,125,955	\$ 2,608,246	\$ 1,651,923	\$ 18,404,203
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New Cash Requirement FY 21-27: Reconciliation

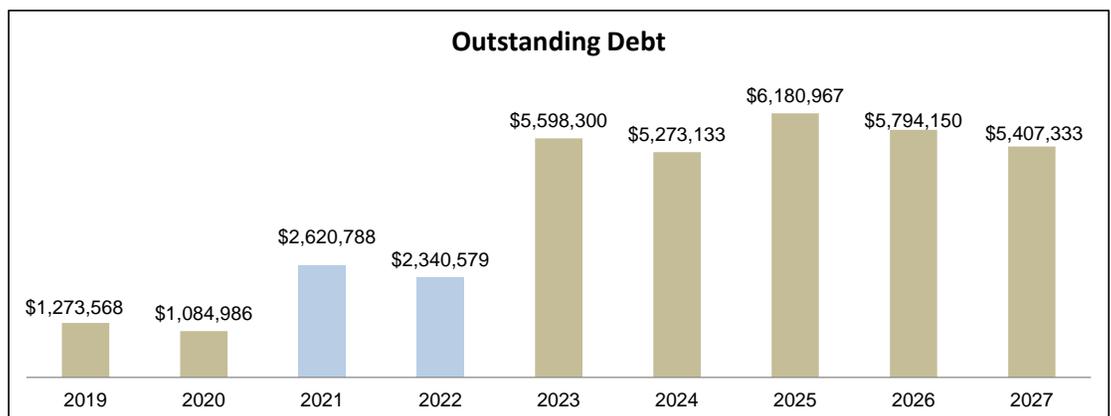
Total: Uses of Cash	\$ 957,300	\$ 1,129,600	\$ 1,164,500	\$ 929,800	\$ 1,554,200	\$ 1,421,000	\$ 1,454,700	\$ 8,611,100
Use of Retained Earnings/Project Balance	-	-	-	-	(300,000)	-	-	(300,000)
New Funds Needed	\$ 957,300	\$ 1,129,600	\$ 1,164,500	\$ 929,800	\$ 1,254,200	\$ 1,421,000	\$ 1,454,700	\$ 8,311,100

Water Fund

2021 - 2027 CIP Debt Summary

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing and Authorized Debt	\$2,811,986	\$2,620,788	\$2,340,578	\$5,598,300	\$5,273,133	\$6,180,966	\$5,794,149
New Issues Proposed	-	-	3,464,000	-	1,233,000	-	-
Principal Paid	(191,197)	(280,210)	(206,279)	(325,167)	(325,167)	(386,817)	(386,817)
Total Existing Debt & Issues Proposed	\$2,620,788	\$2,340,578	\$5,598,300	\$5,273,133	\$6,180,966	\$5,794,149	\$5,407,333

	<u>Issue</u>	<u>Term</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
Existing & Authorized Debt Service (P & I)			\$257,085	\$374,448	\$292,552	\$211,095	\$205,841	\$200,587	\$195,333
<u>Proposed Debt Service CIP FY21</u>									
N/A									
<u>Proposed Debt Service CIP FY22</u>									
N/A									
<u>Proposed Debt Service CIP FY23</u>									
3 MG Water Tank	2,227,000	20			44,540	198,203	193,749	189,295	184,841
Distribution Improvements - Downtown Central Square & Main Street	1,237,000	15			24,740	130,297	126,999	123,700	120,401
<u>Proposed Debt Service CIP FY24</u>									
N/A									
<u>Proposed Debt Service CIP FY25</u>									
Well Fields Upgrade	1,233,000	20					24,660	109,737	107,271
<u>Proposed Debt Service CIP FY26</u>									
N/A									
<u>Proposed Debt Service CIP FY27</u>									
N/A									
Total CIP 21-27 Debt Service Proposed			0	0	69,280	328,500	345,408	422,732	412,513
Total Projected Debt Service: Water Fund			\$257,085	\$374,448	\$361,832	\$539,595	\$551,249	\$623,319	\$607,846



Water Fund

Water Infrastructure Capital Reserve

The purpose of the Water Infrastructure Capital Reserve is for the repair and replacement of major components of existing infrastructure, systems, and equipment including wells, lift stations, tanks etc., and the distribution system.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
1.5 MG Water Tank Upgrade		(343,667)					
3.0 MG Water Tank Repairs		(62,500)					
Black Brook Water Tank		(35,000)					
Chapman Road Water Tank		(54,449)					
Emergency Generators Replacement Lower Winchester Street				(250,793)			
Water Distribution (Main) Improvements	(330,470)	(211,246)		(115,942)	(300,000)	(1,187,246)	(197,233)
Water Utility Work - Bridges				(69,700)			
Well Field Evaluation Plan			(408,590)				
Total Expenditures	<u>(\$330,470)</u>	<u>(\$706,862)</u>	<u>(\$408,590)</u>	<u>(\$436,435)</u>	<u>(\$1,299,755)</u>	<u>(\$1,187,246)</u>	<u>(\$197,233)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	725,000	725,000	725,000	725,000	750,000	750,000	750,000
Estimated Investment Earnings	3,036	3,141	4,739	6,206	3,488	1,319	4,090
Total Receipts	<u>\$728,036</u>	<u>\$728,141</u>	<u>\$729,739</u>	<u>\$731,206</u>	<u>\$753,488</u>	<u>\$751,319</u>	<u>\$754,090</u>
Estimated End of Year Reserve Balance	\$610,151	\$631,430	\$952,579	\$1,247,350	\$701,083	\$265,156	\$822,013

Water Fund

Water Treatment Facility Infrastructure Capital Reserve

The purpose of the Water Treatment Facility Capital Reserve is for the repair and replacement of major components of facility including pumps, controls, chemical systems, etc., and, building components.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Filter Media Replacement		(203,126)		(215,496)			
Instrument Upgrade					(39,000)		
Pavement Replacement			(71,900)				
Total Expenditures	\$0	(\$203,126)	(\$71,900)	(\$215,496)	(\$39,000)	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Estimated Investment Earnings	1,205	696	840	266	573	1,076	1,581
Total Receipts	\$101,205	\$100,696	\$100,840	\$100,266	\$100,573	\$101,076	\$101,581
<u>Estimated End of Year Reserve Balance</u>							
	\$242,253	\$139,823	\$168,762	\$53,533	\$115,105	\$216,181	\$317,762

Water Fund

2021 - 2027 Capital Improvement Program Multi-Year Projections

	ACTUAL FY 17/18	ACTUAL FY 18/19	BUDGET FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27
REVENUES										
Taxes	\$100,228									
Intergovernmental										
Charges for Services	3,903,050	4,075,327	4,208,645	4,667,823	4,778,450	4,874,019	4,971,500	5,046,072	5,121,763	5,198,590
Miscellaneous	42,909	148,118	465,825	17,500	17,500	20,000	20,000	20,000	20,000	20,000
Use of Surplus	54	0	0	0	0	0	0	0	0	0
Interfund Appropriations	1,079,728	1,676,090	1,577,200	957,300	1,129,600	1,164,500	929,800	1,554,200	1,421,000	1,454,700
TOTAL REVENUES	\$5,125,969	\$5,899,536	\$6,251,670	\$5,642,623	\$5,925,550	\$6,058,519	\$5,921,300	\$6,620,272	\$6,562,763	\$6,673,290
EXPENSES										
Public Works Water	\$759,368	\$828,010	\$694,029	\$711,380	\$729,164	\$743,748	\$758,622	\$773,795	\$789,271	\$805,056
Water Main & Trench Repairs	184,044	234,398	226,115	231,768	237,562	242,313	247,160	252,103	\$257,145	\$262,288
Water Supply	177,060	180,253	200,380	205,390	210,524	214,735	219,029	223,410	\$227,878	\$232,436
Hydrants	105,051	131,652	133,902	137,250	140,681	143,494	146,364	149,292	\$152,277	\$155,323
Meters	409,642	401,042	452,230	463,536	475,124	484,627	494,319	504,206	\$514,290	\$524,575
Water Services	70,915	53,354	48,390	49,600	50,840	51,857	52,894	53,952	\$55,031	\$56,131
Water Treatment Facility	629,093	569,783	896,402	918,812	941,782	960,618	979,830	999,427	\$1,019,416	\$1,039,804
Laboratory	195,803	215,215	186,146	190,800	195,570	199,481	203,471	207,540	\$211,691	\$215,925
Maintenance	152,864	185,112	151,781	155,576	159,465	162,654	165,907	169,225	172,610	\$176,062
Depreciation Expense	952,237	934,271	962,376	986,435	975,000	975,000	1,000,000	1,000,000	\$1,025,000	1,025,000
Debt Service	47,022	41,234	76,541	65,887	94,238	155,553	214,429	226,082	\$230,604	221,030
Loss on Sale of Fixed Assets		9,328								
CAPITAL PROGRAM	\$3,683,100	\$3,783,650	\$4,028,292	\$4,116,432	\$4,209,950	\$4,334,079	\$4,482,026	\$4,559,031	\$4,655,211	\$4,713,630
Capital Reserve Appropriations	800,000	690,000	760,000	825,000	825,000	825,000	825,000	850,000	850,000	850,000
Capital Projects-Net Interfund Transfers	279,727	986,090	817,200	132,300	304,600	339,500	104,800	704,200	571,000	604,700
Capital Project Expenditures	188,445	150,805	0	125,000	125,000	125,000	125,000	125,000	125,000	125,000
	\$1,268,172	\$1,826,895	\$1,577,200	\$1,082,300	\$1,254,600	\$1,289,500	\$1,054,800	\$1,679,200	\$1,546,000	\$1,579,700
TOTAL EXPENSES	\$4,951,271	\$5,610,545	\$5,605,492	\$5,198,732	\$5,464,550	\$5,623,579	\$5,536,826	\$6,238,231	\$6,201,211	\$6,293,330
NET REVENUE (EXPENSE)	\$ 174,697	\$ 288,990	\$ 646,178	\$ 443,891	\$ 461,000	\$ 434,940	\$ 384,474	\$ 382,041	\$ 361,552	\$ 379,960
Projected Fund Balance End of Year	\$2,193,282	\$2,482,272	\$3,128,450	\$3,572,341	\$4,033,342	\$4,468,282	\$4,852,756	\$5,234,797	\$5,596,349	\$5,976,309

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Arts & Culture Corridor - Water Infrastructure Support

Project Number: TBD

Physical Location: Downtown

Project Status: New Project

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Provide adequate infrastructure to support the goal of a vibrant downtown.



PROJECT DESCRIPTION/JUSTIFICATION

The community and private entities are considering the addition of facilities and amenities that would support and encourage the arts and creative culture in the City of Keene and region. Discussions have included the reconstruction of Gilbo Avenue from Main Street to St James Street, extension of Wilson Street, the construction of a covered pavilion near the intersection of Gilbo Avenue and School Street, the construction of a skateboard park along Gilbo Avenue, the construction of a mixed-use artist live/workspace on Eagle Court, the renovation of several existing buildings and the redesign of Rail Road Square. This project would provide for the design, replacement, and upgrade of City infrastructure to support this initiative. The stormwater, wastewater, and water infrastructure in the area date from the 1890s up to the 1960s with some systems being under capacity. It is appropriate to replace these systems prior to placing new construction over them to avoid unnecessary damage from a failure. There may be additional improvements/upgrades to support this initiative as plans are developed.

The budget listed below includes replacing approximately 450 feet of water mains from the early 1900s as well as extending the Wilson Street water main to Gilbo Avenue.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		36,300							36,300
Construction / Implementation			205,700						205,700
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$36,300	\$205,700	\$0	\$0	\$0	\$0	\$0	\$242,000
FUNDING									
Current Revenue		36,300	205,700						242,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$36,300	\$205,700	\$0	\$0	\$0	\$0	\$0	\$242,000

WATER STORAGE TANKS

The City owns and operates 6 water storage tanks throughout the distribution system. In 2013, Tighe and Bond Engineering performed an external evaluation of the water storage tanks. In 2015, Liquid Engineering, a team of specialized divers performed an inspection of the interior of the water storage tanks.

As proposed in the CIP, FY 20 funds the design for improvements of three of the City's water storage tanks, which includes the Blackbrook, Chapman Road and the 1.5 million gallon tank located at the Water Treatment Facility. Even though the tanks are listed as independent projects, the projects will be combined to take advantage of the cost and administrative efficiencies of having one large project.

In 2018, the Blackbrook tank was taken offline and completely refurbished inside and out. However, the electrical equipment was not moved above ground as part of the refurbishing project and still needs to be completed.

Chapman Road tank also has an underground vault with electrical utilities that need to be moved above ground. Repairs to the interior coating system as well as the exterior of the tank need to be performed as well.

The 1.5 MG tank is a large tank that is 112 feet in diameter and 21 feet deep. It's a buried, cast in place tank that was constructed in 1924 and will be nearly 100 years old by the time the improvements are complete. This project funds a new, impermeable roof cover that will be sloped appropriately to divert water away from the top of the tank which constitutes much of the work.

Combining all three projects into one project;

- FY20 \$120,041 for evaluation and design services
- FY22 \$428,116 for construction and implementation

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Black Brook Storage Tank Repairs

Project Number: 05094-20
 Physical Location: Black Brook Storage Tank
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Make repairs and improvements in accordance with current standards for water storage tanks



PROJECT DESCRIPTION/JUSTIFICATION

This 380,000 gallon, precast concrete water storage tank, constructed in 1996, provides water for fire suppression and helps maintain stable water pressure in the Black Brook pressure zone. The 2013 tank evaluation recommended the existing tank vault be discontinued and all underground utilities be re-located above-ground. The electrical panels are in good condition and relocating them to an above-ground station will extend their useful life by providing a drier environment. An above-ground station would have the added benefit of allowing a single staff member to check critical components without the hazards, equipment, and additional personnel required to perform a confined space entry.

This project coincides with the Chapman tank and 1.5 million gallon tank repairs. The evaluation, design, and construction work on the three tanks will be performed at the same time to take advantage of the cost and administrative efficiencies associated with having one larger project versus several smaller projects. The scope of this project is smaller than described in previously published CIPs because, in September 2017, the City Council approved moving ahead with the tank repairs to address the tank deterioration on an accelerated schedule, leaving the electrical upgrade to be performed in FY22 as scheduled. The FY22 budget was adjusted accordingly.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			35,000						35,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$35,000	\$0	\$0	\$0	\$0	\$0	\$35,000
FUNDING									
Current Revenue									0
Capital Reserve			35,000						35,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$35,000	\$0	\$0	\$0	\$0	\$0	\$35,000

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Chapman Water Tank Repairs

Project Number: 05095-20
 Physical Location: Chapman Water Tank
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Make repairs and improvements in accordance with current standards for water storage tanks



PROJECT DESCRIPTION/JUSTIFICATION

This 200,000 gallon, precast concrete water storage tank was constructed in 1993. This project includes tank repairs identified in the November 2013 Tighe and Bond "Water Facilities Evaluation", including pressure washing the tank roof, sealing the roof panel joints, installing sealant between the access hatch and mounting flange, and moving the electrical equipment above-ground in a new building. This tank is equipped with a below-grade, precast concrete vault that houses an electrical panel board and level instrumentation for the tank. The 2013 evaluation recommended discontinuing the existing vault and relocating all existing underground utilities above ground to provide a drier environment for the electrical and analytical equipment. An above-ground station would also allow a single staff member to inspect critical components without the hazards, assistance, and equipment associated with a regulated confined space entry.

FY20 funded a detailed evaluation of the tank, development of repair specifications and electrical upgrade design. FY22 funds the tank repairs and electrical work. This project coincides with the Blackbrook tank and 1.5 million gallon tank repairs to take advantage of the cost and administrative efficiencies associated with having one larger project versus several smaller projects.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			54,449						54,449
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$54,449	\$0	\$0	\$0	\$0	\$0	\$54,449
FUNDING									
Current Revenue									0
Capital Reserve			54,449						54,449
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$54,449	\$0	\$0	\$0	\$0	\$0	\$54,449

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: 1.5 MG Storage Tank Repairs

Project Number: 05096-20
 Physical Location: Roxbury Street
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Continually support and maintain infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The 1.5 million gallon water storage tank located on Roxbury Street is a buried, cast-in-place concrete tank that was built in 1924. Improvements recommended by the November 2013 Tighe and Bond "Water Facilities Evaluation" report will extend its useful life and bring it up to current water storage tank standards. This project funds the design to correct deficiencies including a new membrane roof cover, regrading the soil over the tank, installation of a mixing system, and installation of a separate tank vent.

This tank is covered by approximately 6 inches of topsoil with several low areas that allow water to pond on the tank's flat roof. Tighe and Bond recommended that the buried tank should be equipped with an impermeable membrane roof cover and the topsoil be graded to divert water away from the tank roof. The report also indicated the existing tank overflow currently acts as both an overflow and a vent for the tank, which does not conform with current standards for water storage tanks. The engineering and design work for this project is funded in FY20.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			343,667						343,667
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$343,667	\$0	\$0	\$0	\$0	\$0	\$343,667
FUNDING									
Current Revenue									0
Capital Reserve			343,667						343,667
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$343,667	\$0	\$0	\$0	\$0	\$0	\$343,667

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: 3 MG Water Storage Tank Repairs

Project Number: 05053-18
 Physical Location: Roxbury Street
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Extend the useful life of the water storage tank through repairs and maintenance



PROJECT DESCRIPTION/JUSTIFICATION

The City's 3.0 million gallon water storage tank is an above grade welded steel tank that was constructed in 1962. The November 2013 " Water Facilities Evaluation" performed by Tighe and Bond included an interior and exterior inspection that noted several deficiencies. The deficiencies noted included failure of the interior and exterior coating systems; corrosion on the tank wall; interior rust nodules on the floor of the tank; holes and delamination on the roof of the tank and replacement of the tank vent. Tighe and Bond also recommend installing cathodic protection and a guard rail at the top of the tank for safe walking along the dome.

FY18 funded a more detailed evaluation of the tank. Tata & Howard Engineers was selected to perform the work which was completed in 2019. After evaluating the tank and reviewing the current and future water storage requirements Tata and Howard Engineers recommend rehabilitating the existing tank to include a new interior and exterior coating system as well as the installation of a mixing system. Cost estimates for this work are estimated at \$2.3 million. The work is scheduled to take place in FY23.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design			62,500	140,000					202,500
Construction / Implementation				2,073,382					2,073,382
Property/Equip. Acquisition									0
Other - Debt Issuance				13,618					13,618
TOTAL	\$0	\$0	\$62,500	\$2,227,000	\$0	\$0	\$0	\$0	\$2,289,500
FUNDING									
Current Revenue									0
Capital Reserve			62,500						62,500
Debt Funded				2,227,000					2,227,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$62,500	\$2,227,000	\$0	\$0	\$0	\$0	\$2,289,500

WATER DISTRIBUTION IMPROVEMENTS

In 2015 The Public Works Department hired a consultant to prepare a Water Mains Asset Management Plan (AMP). The Plan was completed in June of 2016. The AMP prioritizes water mains that should be replaced or rehabilitated over the next century. Each length of water main throughout the City was evaluated for both probability and consequence of failure. Criteria used to identify the probability of failure include age, material, and breakage history. Criteria used to determine the consequence of failure include regulatory compliance, social cost, collateral damage, and environmental cost. A weighted calculation was used to combine these ratings into a risk score for each water main throughout the City. Mains with the highest risk score are prioritized for replacement or rehabilitation in the CIP. Mains with lower risk scores will be identified for replacement or rehabilitation in future years.

Street	Scope of work	Length (feet)	2018 estimated cost**	Construction year	Inflation adjust. (3% per year)	Construction year estimated cost ⁽³⁾
Roxbury Street ⁽¹⁾	Replace 12" water main between Central Square and the bridge over Beaver Brook as part of the Roxbury St. rehab project.	-	\$311,500	2021	\$18,970	\$330,470
Main Street	Prepare designs for FY23 project.	-	\$193,320	2022	\$17,926	\$211,246
	Replace cast iron pipes installed between 1868 and 1928 from Central Square to Emerald Street.	2,900	\$1,095,480	2023	\$137,492	\$1,232,972
Island Street	Prepare designs for FY25 project.	-	\$97,100	2024	\$18,842	\$115,942
	Replace 6" cast iron pipe with 8" ductile iron pipe from West Street to the bridge over the Ashuelot River	1,850	\$647,500	2025	\$148,843	\$796,343
Court Street	Prepare designs for FY26 project.	-	\$165,392	2025	\$38,019	\$203,412
	Replace 12" cast iron pipe with 12" ductile iron pipe from Swanzey Factory Road to Branch Road as part of the proposed NHDOT reconstruction of Rt. 101.	3,350	\$937,223	2026	\$250,023	\$1,187,246
Rt. 101	Prepare designs for FY29 project.	-	\$151,155	2027	\$46,068	\$197,223
	Replace 8" cast iron pipe with 12" ductile iron pipe from Hurricane Road to Summit Road to improve available fire flows	3360	\$856,545	2029	\$329,114	\$1,185,659
Hastings Avenue	Prepare designs for FY30 project.	-	\$120,000	2029	\$46,108	\$166,108
	Replace 8" cast iron pipe with 12" ductile iron pipe from Hurricane Road to Summit Road to improve available fire flows	3388	\$967,266	2030	\$411,824	\$1,379,090
Maple Avenue	Prepare designs for FY31 project.	-	\$141,885	2030	\$60,409	\$202,294
	Replace 10" cast iron pipe with 12" ductile iron pipe from Hastings Avenue to Rt. 12.	3,313	\$945,900	2031	\$443,186	\$1,389,086

1) This project was previously planned as a lining project but is now recommended for replacement as part of the Roxbury Street rehab project.

2) A portion of this work was previously planned as a lining project, but is now recommended for replacement as part of the Downtown Rehab project.

3) All costs include 10% for construction contingencies, 15% for engineering design, 10% for construction administration, and 1% for supervision

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Water Distribution Improvements

Project Number: 05009
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve water quality and system reliability



PROJECT DESCRIPTION/JUSTIFICATION

In 2015 the public works department hired a consultant to prepare a Water Mains Asset Management Plan (AMP). The AMP was completed in June of 2016 and outlines an informed process to identify water mains that should be replaced or rehabilitated over the next century. Each length of water main throughout the City was evaluated for both probability and consequence of failure. Criteria used to identify the probability of failure include age, material, and breakage history. Criteria used to determine the consequence of failure include regulatory compliance, social cost, collateral damage, and environmental cost. A weighted calculation was used to combine these ratings into a risk score for each water main throughout the City. The current CIP addresses three high-priority water mains on Court Street, Main Street, and Island Street. Mains with lower risk scores will be identified for replacement or rehabilitation in future years.

A new project has been added in FY29 (design in FY27) in response to the NHDOT's plans to reconstruct Rt. 101 from Swanzey Factory Road to Branch Road. The water mains in this area date to 1914 and should be replaced as part of the DOT's project.

This program is also used to fund the replacement of undersized water mains. These projects often have lower risk scores because the mains may not be as old or prone to breakage. However, they are important in terms of system reliability, and our ability to provide adequate fire flows. Two such projects are currently planned for FY30 and FY31. The timing of these upgrades may be re-evaluated as circumstances demand.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design		49,571	211,246		115,942	203,412		197,223	777,394
Construction / Implementation		280,900		1,232,972		796,343	1,187,246		3,497,461
Property/Equip. Acquisition									0
Other - Debt Issuance				4,028					4,028
TOTAL	\$0	\$330,470	\$211,246	\$1,237,000	\$115,942	\$999,755	\$1,187,246	\$197,223	\$4,278,883
FUNDING									
Current Revenue									0
Capital Reserve		330,470	211,246		115,942	999,755	1,187,246	197,223	3,041,882
Debt Funded				1,237,000					1,237,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$330,470	\$211,246	\$1,237,000	\$115,942	\$999,755	\$1,187,246	\$197,223	\$4,278,882

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Water Main Cleaning and Lining

Project Number: 05063
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve water quality and system reliability



PROJECT DESCRIPTION/JUSTIFICATION

This project will renew water mains through cleaning and lining to extend their life and improve water quality. It will occur in areas where water mains are adequately sized but need attention, and the other utilities do not require replacement.

Prior capital improvement programs have budgeted for cleaning and lining based on the price for spray-applied cement lining. An analysis of recent water main breaks indicates that our most critical need is the structural lining of Cast Iron Universal (CIU) pipes. This type of pipe has joints held together by two bolts. Over time, these bolts corrode and cause the pipe to separate at the joint. Unfortunately, the cement lining does not address this type of deficiency. Specific projects currently planned to include:

- FY23: Meadow Road (1,320 LF of 12" main)
- FY24 & FY25: West Street (from Symonds Place to Bradford Road - 3,030 LF of 12" main)
- FY26-FY28: Water Street (4,930 LF of 16" main) - Work will be completed in 3 phases.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				237,700		596,200	443,700	457,000	1,734,600
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$237,700	\$0	\$596,200	\$443,700	\$457,000	\$1,734,600
FUNDING									
Current Revenue				237,700		296,200	443,700	457,000	1,434,600
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other - Use of Surplus						300,000			300,000
TOTAL	\$0	\$0	\$0	\$237,700	\$0	\$596,200	\$443,700	\$457,000	\$1,734,600

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Water Utility Work - Bridges

Project Number: TBD

Physical Location: Various

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve water quality and system reliability



PROJECT DESCRIPTION/JUSTIFICATION

The work funded by this project includes the replacement of water mains that are affected by the City's Bridge Replacement Program. The State of NH Department of Transportation's Bridge Program does not provide funds for water utilities that are damaged or need to be replaced due to a bridge project. This project funds the time and materials required for the water main replacement and does not include road or surface replacement because that portion is covered by the corresponding bridge project.

FY24: George Street over Beaver Brook

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation					69,700				69,700
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$69,700	\$0	\$0	\$0	\$69,700
FUNDING									
Current Revenue									0
Capital Reserve					69,700				69,700
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$69,700	\$0	\$0	\$0	\$69,700

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Water Valve Replacement

Project Number: 05048-ZZ
 Physical Location: Various
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve Water distribution system reliability



PROJECT DESCRIPTION/JUSTIFICATION

This project replaces gate valves in water mains that are not scheduled for replacement through other infrastructure improvement projects. Properly functioning gate valves are required to isolate water mains in the event of a break, routine repair, or system contamination. More than one-third of the City's watergate valves are sixty years or older and present maintenance issues because they are difficult to open and close, or cannot be operated at all. Problems include leaky valve packing, and/or complete valve failure. This project will be designed by in-house engineering staff and includes funds for an outside contractor to complete the work. Individual valves are selected for replacement based on inspections performed during the bi-annual flushing program, with priority given to poor-condition valves in areas scheduled for road work.

In recent years, roadway rehab projects have required extensive preparatory work from public works staff to replace unserviceable curb stops and service laterals before resurfacing the roadways. To date, the Water & Sewer division has completed this work as an operating budget item. This practice has resulted in other division work being delayed or left undone. Beginning in FY20, funds will be budgeted through the Water Valve Replacement Project to cover the cost of curb stop and lateral replacement, where required.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation		96,000	98,900	101,800	104,800	108,000	127,300	147,700	784,500
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$96,000	\$98,900	\$101,800	\$104,800	\$108,000	\$127,300	\$147,700	\$784,500
FUNDING									
Current Revenue		96,000	98,900	101,800	104,800	108,000	127,300	147,700	784,500
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$96,000	\$98,900	\$101,800	\$104,800	\$108,000	\$127,300	\$147,700	\$784,500

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: WTF Pavement Replacement

Project Number: TBD

Physical Location: 555 Roxbury Road

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain Infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The Water Treatment Facility (WTF) became operational in 1993 and will be 30 years old in 2023. Since 1993 the City has performed repairs on the access road and parking lot areas to maintain and extend the useful life of the pavement. The November 2013 "Water Facilities Evaluation" performed by Tighe and Bond indicated the bituminous pavement has a lifespan of 20 years. The report noted that the access road and parking area were in fair condition, but many spider cracks, longitudinal cracks, and spalled areas were observed. The overall pavement condition and type of cracking, indicate that crack sealing will no longer prolong the pavement life.

This project funds repaving the access road and parking areas including adjustments to manhole covers, rims, catch basin frames, and grates. This work is scheduled for FY23 because the 2013 Tighe and Bond evaluation recommended the deficiencies be corrected by 2019 to prevent the need for additional repairs and further degradation of the pavement. Further pavement degradation can result in a more extensive and expensive project in the future. This project will provide an access road and parking areas that, with proper maintenance, will have a useful life of 20 to 30 years.

This project is funded, wholly or in part, from the Water Treatment Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 174 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				71,900					71,900
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$71,900	\$0	\$0	\$0	\$0	\$71,900
FUNDING									
Current Revenue									0
Capital Reserve				71,900					71,900
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$71,900	\$0	\$0	\$0	\$0	\$71,900

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Well Field Upgrades

Project Number: 05093-20
 Physical Location: West and Court Street Well Facilities
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Continually support and maintain infrastructure



PROJECT DESCRIPTION/JUSTIFICATION

The City's surface water supply is supplemented by 4 groundwater wells located on West and Court Streets. The West Street and Court Street well facilities include four well buildings that were constructed between 1965 and 1977, and two corrosion control buildings, constructed in 1988 that house chemical feed equipment. The November 2013 "Water Facilities Evaluation" performed by Tighe and Bond, cited many deficiencies for the facilities including replacement of chemical storage tanks, chemical feed pumps, well pumps, electrical circuit breaker and panel boards, Parco valves, building heaters, structural improvements, and the addition of electrical generators to provide emergency power.

FY20 funds an in-depth, detailed evaluation of these facilities. It will provide recommendations for repair/replace/relocation of the City's well facilities and will assist the City Council to determine the best approach to move forward with well resource improvements. The evaluation will also consider the City's current and future water demands, and provide financially-based recommendations for the rehabilitation of current facilities, compared to the development and construction of a new groundwater supply. FY23 funds the design for either rehabilitation of current assets or construction of a new well facility. FY25 funds either rehabilitation of the West or Court Street facilities, or construction of new supply well and corrosion control facility.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 174 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design				408,590					408,590
Construction / Implementation						1,226,000			1,226,000
Property/Equip. Acquisition									0
Other - Debt Issuance						7,000			7,000
TOTAL	\$0	\$0	\$0	\$408,590	\$0	\$1,233,000	\$0	\$0	\$1,641,590
FUNDING									
Current Revenue									0
Capital Reserve				408,590					408,590
Debt Funded						1,233,000			1,233,000
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$408,590	\$0	\$1,233,000	\$0	\$0	\$1,641,590

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: WTF Filter Media and Underdrain Replacement

Project Number: 05059-20

Physical Location: 555 Roxbury Road

Project Status: Ongoing CIP

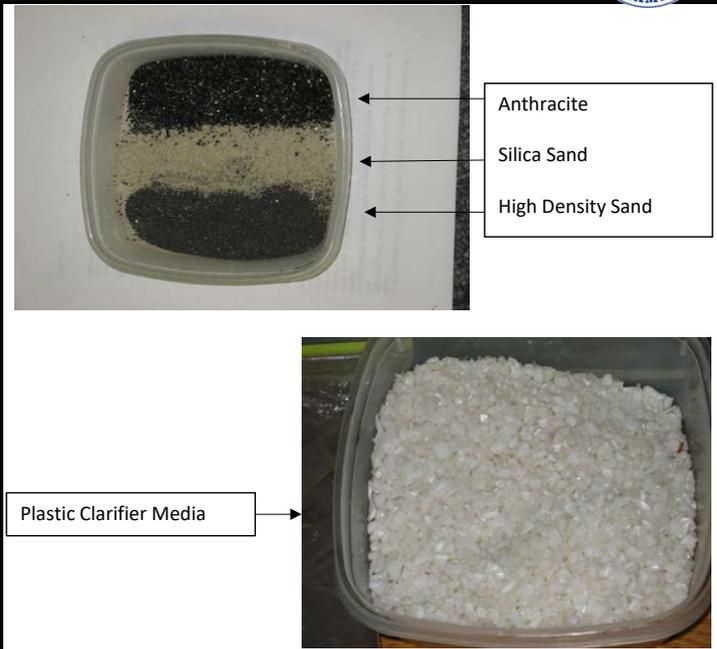
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Maintain compliance with drinking water standards through filter maintenance



PROJECT DESCRIPTION/JUSTIFICATION

The City's water treatment facility has three treatment units, each with three layers of filter media. Since its installation in 1993, the media has been renewed, but not replaced, and shows signs of wear. The City contracted with Tighe and Bond Consulting Engineers in 2013 to perform an evaluation of the filters and media. The visible parts of the filter units were found to be in good repair but the underdrain components cannot be inspected while the units are filled with media. The evaluation found the anthracite media does not meet specifications and recommends its replacement to improve filter performance and efficiency. Tighe and Bond recommend removing and discarding the existing media to perform the underdrain evaluation and repair. When the underdrain work is complete, all 3 layers of media will be replaced with fresh material.

This project funds the inspection and repair of the underdrain system and filter media for each unit, on a phased schedule, to minimize operational and budget impacts. The FY20 CIP started the funding for one unit every two years. This CIP funds the next two cycles for the remaining work - FY22 and FY24.

This project is funded, wholly or in part, from the Water Treatment Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 174 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation			203,126		215,496				418,622
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$203,126	\$0	\$215,496	\$0	\$0	\$0	\$418,622
FUNDING									
Current Revenue									0
Capital Reserve			203,126		215,496				418,622
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$203,126	\$0	\$215,496	\$0	\$0	\$0	\$418,622

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Emergency Generators

Project Number: TBD

Physical Location: Chapman Rd, Wells 2, 3 and 4

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: To have a reliable supply of emergency power that will allow to remain in operation in the event of a power outage



PROJECT DESCRIPTION/JUSTIFICATION

This project will purchase 3 new generators: a 100 KW generator and automatic transfer switch at the Chapman Road Water Booster Station; a 200 KW generator and transfer switch for Wells 2,3 and 4; and replacement of the 1985 30 KW portable generator that is used at remote stations as needed. The City has seven other sites without generators, including Well 1, where the new portable equipment will be used in conjunction with an existing 200 KW portable generator when line power fails.

Backup power generators are of paramount importance for a public water system. Two of Keene's key sites do not have permanently located automatic generators that allow continued water service when line power is lost. Seven other sites rely solely on portable generators. The Court Street well field, capable of producing up to 1,700 gallons of water per minute, and the water booster station that fills the 200,000 gallon Chapman Road water storage tank, both rely on the ability of staff to shuffle around 2 portable generators, shared with 7 other remote sites, to allow uninterrupted water service during a power outage. A 200 KW generator located at the Court Street well field, sized to operate two wells at a time, would allow consistent production and treatment of up to 1.6 million gallons of potable water a day, for drinking and fire protection. A permanently located generator at the Chapman Road water booster station would allow the Chapman Road area and the Branch Road neighborhoods to continue to receive water during a power outage. Using a portable generator at Chapman Road is challenging because it is a steep, curving driveway that is difficult to maneuver in good weather, and dangerous or impossible during storm conditions. The 7 other sites do not have space or need for onsite emergency power generation.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design					25,000				25,000
Construction / Implementation									0
Property/Equip. Acquisition					225,793				225,793
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$250,793	\$0	\$0	\$0	\$250,793
FUNDING									
Current Revenue									0
Capital Reserve					250,793				250,793
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$250,793	\$0	\$0	\$0	\$250,793

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Instrumentation Upgrade WTF

Project Number: 05081-25
 Physical Location: 555 Roxbury Road
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Monitor plant performance and make process changes to optimize water quality



PROJECT DESCRIPTION/JUSTIFICATION

The Water Treatment Facility (WTF) is equipped with online monitoring equipment that allows operations' staff the ability to monitor and trend the performance of the WTF through the plant's Supervisory Control and Data Acquisition System (SCADA). The data generated by this equipment allows staff to make process changes and optimize the water treatment process. This project funds the replacement of the online total organic carbon (TOC) analyzer in FY25.

This project is funded, wholly or in part, from the Water Treatment Facility Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 174 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						39,000			39,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$39,000	\$0	\$0	\$39,000
FUNDING									
Current Revenue									0
Capital Reserve						39,000			39,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$39,000	\$0	\$0	\$39,000

2021 - 2027 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project Name: Lower Winchester Street Reconstruct - Water Infrastructure Support

Project Number: TBD

Physical Location: Winchester Street - NH Rt 101 to Town Line

Project Status: Ongoing CIP

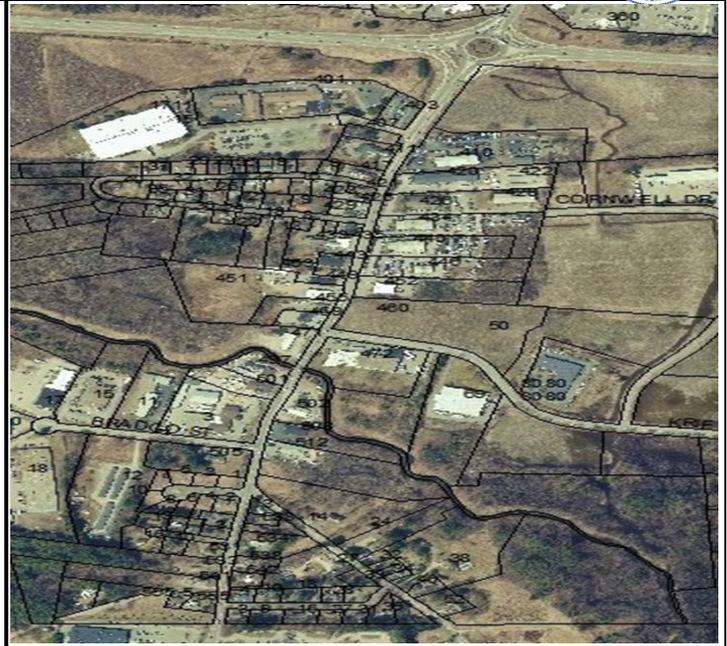
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Improve gateway/corridor into the City



PROJECT DESCRIPTION/JUSTIFICATION

The City has a number of gateway entrances into the City. One of these gateways is Winchester Street from the Swanzey Town Line to the NH Rte. 101 Roundabout. This is an area of commercial, residential and industrial activities. This gateway has not been upgraded in over 30 years. Adjustments were made in 2010 to the intersection of Mathew Road and Winchester street to improve traffic turning movements. This project would involve the reconstruction of Winchester including improvements to the eight intersections along the corridor, reconfiguration of traffic lanes to improve traffic flow, the construction of sidewalks and improvements for bicycle facilities. There would be landscaping improvements to highlight the business corridor. The Winchester Street Bridge over Ash Swamp Brook would also be replaced as part of this project. The proposed funding includes 80% State money, with 20% coming from the City of Keene. There will also be Municipal Owned Bridge Rehabilitation and Replacement (MOBRR) and State Aid Bridge Funding for the replacement of the Winchester Street bridge over Ash Swamp Brook.

The water infrastructure in this area of Winchester Street is from the early 1970s. This funding is to support minor water infrastructure work such as valve replacement. The budget is also requested to replace the segment of water main that crosses Ash Swamp Brook as part of the bridge replacement work.

This project is funded, wholly or in part, from the Water Infrastructure Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 173 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation						300,000			300,000
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000
FUNDING									
Current Revenue									0
Capital Reserve						300,000			300,000
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$0	\$300,000

EQUIPMENT (FLEET) FUND

The Equipment Fund is an internal service fund (charges to other City departments) that has been established to account for the operations, maintenance, and capital outlay needs of City vehicles and equipment.

Description	Page
Equipment CIP Overview & Summary	194-195
Equipment Fund Capital Reserve Summary	
Fleet Equipment Capital Reserve	196
Equipment Fund Multi-Year Projections	197
Equipment (Fleet) Fund Projects	
• Equipment Replacement	198
• Fleet Services Roof Replacement	199
• Fleet Services Building Assessment	200
Equipment Replacement Schedule	201-204

Equipment Fund (Fleet Services)

The rolling stock supplied and serviced by the Fleet Division is a fundamental component of the necessary infrastructure in the provision of government services. Without the basic ability to transport people and access to equipment, there would be no ambulance service, police response, streets plowed, water and sewer services, and almost every other city service. Because the City has a Fleet Services Division, City personnel are able to respond to the variety of needs of the citizens in an efficient and effective manner with appropriate vehicles and equipment.

The Fleet Services Division, located at 330 Marlboro Street, maintains all City vehicles and equipment including Police, Fire and Rescue, Public Works, Parks and Recreation, Cemetery as well as the City of Keene Airport. There are 157 vehicles in the City's replacement program serviced by the Fleet Division along with an additional 99 vehicles/equipment serviced by the Fleet Division, that are not part of the capital replacement program. The Fleet Services team includes an Operations Manager, Administrative Coordinator, and four Mechanics.

When vehicles or equipment are scheduled to be replaced every purchase is evaluated by the Fleet Services Division in consultation with the receiving Department. The goal of the equipment replacement program is to provide City personnel with the most efficient and functional vehicle or equipment at the lowest cost. Some of the City's recent equipment purchases will allow City personnel to do more work without additional human resources. Several years ago the City instituted a "new/used" vehicle and equipment purchasing policy that allows consideration of demo equipment or used equipment for certain applications. A recent example of improving operations was the replacement of plow attachments with antiquated worm gears to piston style setups which are expected to significantly reduce downtime and respond faster during snow and ice control operations.

In addition, the Fleet Services Division maintains a diesel fuel station at 330 Marlboro Street which had a technological update in 2018.

Using operating budget funds in the fall of 2019 the Fleet Division will convert the outdated wash bay into a service bay that can fit the City's fire apparatus. In a few years, Fleet Services is proposing a comprehensive Fleet facility analysis to determine the infrastructure necessary to properly service vehicles of the future and ensure a safe and efficient work environment.

Equipment (Fleet) Fund

2021 - 2027 Capital Improvement Program Summary

Project Name	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	TOTAL
CR Appropriation: Equipment Replacement	\$ 650,000	\$ 650,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 4,425,000
Building Assessment	-	-	70,000	-	-	-	-	70,000
Equipment Replacement	812,356	627,576	607,746	579,787	899,767	650,556	537,969	4,715,757
Roof Replacement	-	-	109,178	-	-	-	-	109,178
TOTAL CAPITAL PROGRAM	\$ 1,462,356	\$ 1,277,576	\$ 1,411,924	\$ 1,204,787	\$ 1,524,767	\$ 1,275,556	\$ 1,162,969	\$ 9,319,935

PROJECT FUNDING DETAIL

Reserve Funded Projects

Equipment Replacement	\$ 812,356	\$ 627,576	\$ 607,746	\$ 579,787	\$ 899,767	\$ 650,556	\$ 537,969	\$ 4,715,757
Total: Reserve Funded Projects	\$ 812,356	\$ 627,576	\$ 607,746	\$ 579,787	\$ 899,767	\$ 650,556	\$ 537,969	\$ 4,715,757

Projects Funded with Debt

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with Debt	\$ -							

Capital Reserve Appropriations

Capital Reserve: Equipment Replacement	\$ 650,000	\$ 650,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 4,425,000
Total: Capital Reserve Appropriations	\$ 650,000	\$ 650,000	\$ 625,000	\$ 4,425,000				

Projects Funded with State Grant

N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant	\$ -							

Projects Funded with Cash

Building Assessment	\$ -	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000
Roof Replacement	-	-	109,178	-	-	-	-	109,178
Total: Projects Funded with Cash	\$ -	\$ -	\$ 179,178	\$ -	\$ -	\$ -	\$ -	\$ 179,178

Subtotal: Uses of Cash	\$ 650,000	\$ 650,000	\$ 804,178	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 4,604,178
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(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM	\$ 1,462,356	\$ 1,277,576	\$ 1,411,924	\$ 1,204,787	\$ 1,524,767	\$ 1,275,556	\$ 1,162,969	\$ 9,319,935
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New Cash Requirement FY 21-27: Reconciliation

Total: Uses of Cash	\$ 650,000	\$ 650,000	\$804,178	\$625,000	\$625,000	\$625,000	\$625,000	\$4,604,178
Use of Retained Earnings/Project Balance	-	-	-	-	-	-	-	-
New Funds Needed	\$ 650,000	\$ 650,000	\$804,178	\$625,000	\$625,000	\$625,000	\$625,000	\$4,604,178

Equipment (Fleet) Fund

Equipment Replacement Capital Reserve

The purpose of the Fleet Equipment Capital Reserve is for the replacement of vehicles and equipment under the management of Fleet Services.

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>
<u>Proposed Project Expenditures</u>							
Equipment Replacement	(812,356)	(627,576)	(607,746)	(579,787)	(899,767)	(650,556)	(537,969)
Total Expenditures	<u>(\$812,356)</u>	<u>(\$627,576)</u>	<u>(\$607,746)</u>	<u>(\$579,787)</u>	<u>(\$899,767)</u>	<u>(\$650,556)</u>	<u>(\$537,969)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	650,000	650,000	625,000	625,000	625,000	625,000	625,000
Estimated Investment Earnings	1,784	1,905	2,000	2,236	874	750	1,189
Total Receipts	<u>\$651,784</u>	<u>\$651,905</u>	<u>\$627,000</u>	<u>\$627,236</u>	<u>\$625,874</u>	<u>\$625,750</u>	<u>\$626,189</u>
Estimated End of Year Reserve Balance							
	\$358,500	\$382,829	\$402,083	\$449,532	\$175,639	\$150,833	\$239,053

Equipment Fund

2021 - 2027 Capital Improvement Program Multi-Year Projections

	ACTUAL FY 17/18	ACTUAL FY 18/19	BUDGET FY 19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27
REVENUES										
Charges for Services	\$2,367,654	\$2,440,536	\$2,511,295	\$2,513,752	\$2,589,165	\$2,640,948	\$2,693,767	\$2,720,705	\$2,747,912	\$2,775,391
Miscellaneous	16,472	33,782	4,495	4,400	4,000	4,000	4,000	4,000	4,000	4,000
Use of (Addition to) Surplus Equipment Sales	23,910		(128,987)	0	0	0	0	0	0	0
TOTAL REVENUES	\$2,408,036	\$2,474,318	\$2,386,803	\$2,518,152	\$2,593,165	\$2,644,948	\$2,697,767	\$2,724,705	\$2,751,912	\$2,779,391
EXPENSES										
Personnel & Benefits	\$572,204	\$583,722	\$609,582	\$624,822	\$640,442	\$656,453	\$672,864	\$686,322	\$700,048	\$714,049
Operating Costs	1,236,370	1,271,756	1,380,221	1,301,897	1,332,752	1,359,407	1,386,595	1,407,394	1,428,505	1,449,932
Depreciation	364,852	397,702	390,000	400,000	400,000	400,000	410,000	410,000	410,000	410,000
SUBTOTAL	\$2,173,427	\$2,253,180	\$2,379,803	\$2,326,718	\$2,373,194	\$2,415,860	\$2,469,459	\$2,503,715	\$2,538,553	\$2,573,981
MINOR CAPITAL		610	7,000	0	0	0	0	0	0	0
TOTAL EXPENSE	\$2,173,427	\$2,253,790	\$2,386,803	\$2,326,718	\$2,373,194	\$2,415,860	\$2,469,459	\$2,503,715	\$2,538,553	\$2,573,981
NET REVENUE (EXPENSE) ⁽¹⁾	\$234,609	\$220,528	\$0	\$191,434	\$219,971	\$229,088	\$228,308	\$220,989	\$213,359	\$205,409

Equipment Fund Increase (Decrease) **3.99%** **3.70%** **3.24%** **2.00%** **1.80%** **2.22%** **1.39%** **1.39%** **1.39%** **1.40%**

This section adjusts Net Revenue (Expense) to include uses of cash not recorded as expense, and to exclude expenses that do not require the use of cash. The purpose of the adjustment is to reflect the projected uses of cash from FY 21 thru FY 27:

Add: Depreciation	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$410,000	\$410,000	\$410,000	\$410,000
Subtract: Transfers to Capital Reserve ⁽²⁾	(650,000)	(650,000)	(650,000)	(650,000)	(650,000)	(625,000)	(625,000)	(625,000)	(625,000)	(625,000)
Debt Service Principal ⁽²⁾										
Capital Outlays ⁽²⁾	(\$58,566)	(\$30,029)	(\$30,029)	(\$179,178)	(\$175,090)	(\$175,090)	\$13,308	\$5,989	(\$1,641)	(\$9,591)
Projected Annual Cash Surplus (Deficit)										

Projected cash balance at year-end	\$ 545,320	\$ 486,754	\$ 456,725	\$ 281,635	\$ 294,943	\$ 300,932	\$ 299,291	\$ 300,932	\$ 299,291	\$ 289,700
Projected cash balance as a % of operations budget (total minus depreciation)	25.26%	23.15%	23.15%	13.97%	14.32%	14.37%	14.06%	14.37%	14.06%	13.39%
Projected percentage increase - internal fleet charges	3.00%	3.00%	3.00%	2.00%	2.00%	1.00%	1.00%	1.00%	1.00%	1.00%

- 1) Net Revenue (Expense) indicates the anticipated increase (decrease) in retained earnings at the end of the year.
- 2) Debt Service principal, capital outlays, and transfers to reserves are balance sheet transactions and are not included in expenses.
- 3) Budgeted revenues exclude Use of Surplus / Fund Balance in FY 21-27

2021 - 2027 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project Name: Equipment Replacement

Project Number: 11003-A
 Physical Location: 330 Marlboro St.
 Project Status: Ongoing CIP
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership
 CMP Vision/Strategy: Infrastructure

V.O.I.C.E: Continually Assess Facilities and Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT DESCRIPTION/JUSTIFICATION

The City of Keene Fleet has 157 vehicles and pieces of equipment in the replacement program. The age of the fleet ranges from one year to more than 15 years. This project sets aside funds for the orderly and timely replacement of vehicles and equipment when they reach the end of their useful life, which is determined through a complete evaluation process. Operating vehicles beyond their service life results in increased maintenance costs, poor customer service, and lost production time due to a vehicle or equipment being out of service for extensive repairs.

The replacement program is based on equipment age, condition, trade-in value, and operational needs of the user. When practical, emphasis is put on purchasing fuel-efficient "green" vehicles as replacements are being evaluated. This replacement program list is reviewed extensively by the fleet services division in consultation with the receiving department before any piece of equipment is replaced. Vehicles are not replaced just because they are on the schedule.

This project is funded, wholly or in part, from the Equipment Replacement Capital Reserve. This page reflects project expenditures from the capital reserve. Please refer to page 196 for the detailed capital reserve activity including funding, expenditures, and estimated balances.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation									0
Property/Equip. Acquisition		812,356	627,576	607,746	579,787	899,767	650,556	537,969	4,715,757
Other									0
TOTAL	\$0	\$812,356	\$627,576	\$607,746	\$579,787	\$899,767	\$650,556	\$537,969	\$4,715,757
FUNDING									
Current Revenue									0
Capital Reserve		812,356	627,576	607,746	579,787	899,767	650,556	537,969	4,715,757
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$812,356	\$627,576	\$607,746	\$579,787	\$899,767	\$650,556	\$537,969	\$4,715,757

2021 - 2027 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project Name: Fleet Services Roof Replacement

Project Number: TBD

Physical Location: 330 Marlboro St.

Project Status: Ongoing CIP

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT DESCRIPTION/JUSTIFICATION

One of the pressing long term capital needs is a replacement of the roof on the Fleet services facility building. Small leaks are beginning to appear in the roof and are patched as necessary. The overall integrity of the roof of the 20-year-old facility is starting to become compromised. The roof will be evaluated every year to determine if the project needs to be accelerated or can be deferred.

The original estimated replacement cost of \$90,230 done in 2016, has been inflated by 3% per year to reflect the expected cost at the time of replacement. A second estimate was obtained in 2019 and the cost - \$109,178 - reflected in the CIP is accurate.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design									0
Construction / Implementation				109,178					109,178
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$109,178	\$0	\$0	\$0	\$0	\$109,178
FUNDING									
Current Revenue				109,178					109,178
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$109,178	\$0	\$0	\$0	\$0	\$109,178

2021 - 2027 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project Name: Fleet Services Building Assessment

Project Number: TBD

Physical Location: 330 Marlboro St.

Project Status: New Project

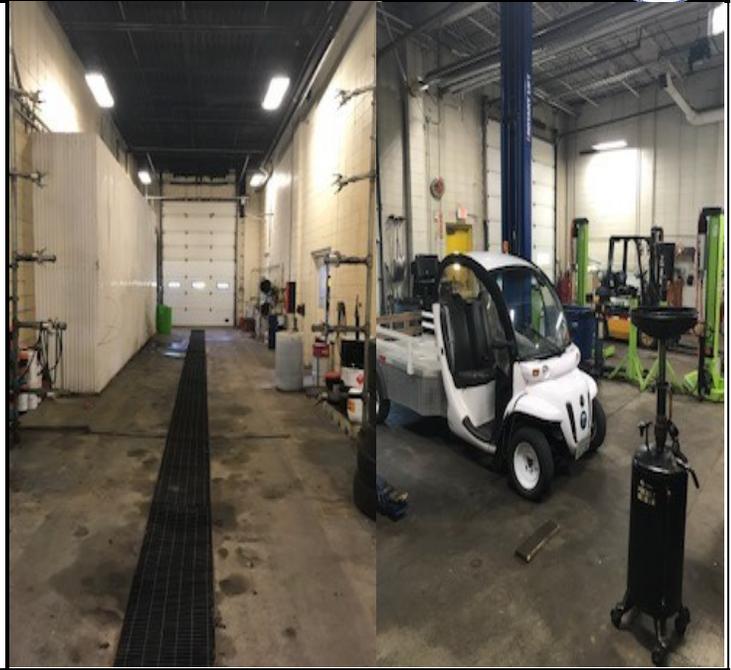
Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

V.O.I.C.E.: Continually Assess Facilities and Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT DESCRIPTION/JUSTIFICATION

This project will allow us to hire a consulting firm that specializes in municipal Fleet operations to review all aspects of the Fleet infrastructure. This will ensure up to date compliance with health, safety protocols, as well as ensuring an efficient service facility. This will include a comprehensive evaluation of the air quality, the repair areas to include shifts in technology (electric, hybrid vehicles), parts storage, and overall capabilities of the facility to ensure the Fleet Division can provide the highest quality service to its customers.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY21	FY22	FY23	FY24	FY25	FY26	FY27	TOTAL
EXPENDITURES									
Design				70,000					70,000
Construction / Implementation									0
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0	\$70,000
FUNDING									
Current Revenue				70,000					70,000
Capital Reserve									0
Debt Funded									0
Federal / State Grants									0
Other Sources									0
TOTAL	\$0	\$0	\$0	\$70,000	\$0	\$0	\$0	\$0	\$70,000

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027
STAFF CARS												
			REPLACE AT 7Yrs./60,000									
1608	2016	\$23,080	Toyota RAV4	P3	Pool car							
1609	2016	\$23,080	Toyota RAV4	P1	Pool Car							
1702	2017	\$22,995	Ford Fusion	P2	Pool car							
2110	2012	\$16,585	Ford Focus	110	Assessing		\$21,560					\$29,893
3118	2014	\$18,559	Ford Fusion	118	Health/Code			\$24,126				
09C1	2009	\$29,879	Ford Explorer	09C1	Parks & Rec		\$38,842					
7114	2017	\$22,995	Ford Fusion	114	Code							\$29,893
19C2	2009	\$37,336	Suburban	19C2	Fire	\$49,000						
19C1	2017	\$54,000	Chevy Tahoe	19C1	Fire							
19C3	2016	\$42,000	Ford F350	19C3	Fire		\$51,304					
19U3	2012	\$34,970	Ford Interceptor		Fire		\$45,461					
0973	2009	\$29,879	Ford Escape	57	Engineering		\$38,842					
1001	2009	\$29,879	Ford Escape	112	Health/Code							
1144	2011	\$18,989	Ford Transit connect	21	Wastewater					\$27,534		
1243	2012	\$22,374	Ford Transit Connect	1143	PD Parking						\$28,360	
1436	2014	\$36,000	Ford Interceptor	120	Code							
0037	2000	\$2,900	Lexus 300 ES	0037	Fleet							
VANS												
			REPLACE AT 10 YEARS/70,000 (8 YEARS/70,000 old)									
1370	2013	\$16,353	Ford E150	70	Water Meter			\$23,596				
1108	2011	\$17,392	Ford E150	8	Water Meter		\$22,610					
1258	2012	\$16,491	Ford E150	58	Engineering		\$30,000					
1545	2015	\$16,807	GMC Savannah	1145	PD Parking						\$21,849	
8101	2018	\$53,000	Ford E-350 Transit Bus	101	Parks & Rec							
1259	2012	\$16,491	Ford E-150	59	WWTP					\$48,339		
0313	2003	\$14,250	Ford E-250	125	Records			\$32,227				
AMBULANCE												
			(Funding by separate Fire Department Capital Reserve Program)									
1601	2016		Ford	19A1	Fire							
19A2	2013		International	19A2	Fire							
1901	2019		Ford	19A3	Fire							
MARKED POLICE												
			REPLACE AT 60,000/3YEARS									
1736	2017	\$37,500	Ford Interceptor	1136	Cruiser	\$79,714	\$122,850	\$84,358	\$86,888	\$132,000	\$135,960	\$140,000
1837	2018	\$37,500	Ford Interceptor	1137	Cruiser							
1933	2019	\$37,500	Ford Interceptor	1133	Cruiser							
1734	2017	\$37,500	Ford Interceptor	1134	Cruiser							
1835	2018	\$37,500	Ford Interceptor	1135	Cruiser							
1940	2019	\$37,500	Ford Interceptor	1140	Cruiser							
1630	2016	\$37,500	Ford Interceptor	1130	Cruiser							
1938	2019	\$37,500	Ford Interceptor	1138	Cruiser							
1739	2017	\$37,500	Ford Interceptor	1139	Cruiser							

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027
PD UNMARKED/ STAFF CARS												
4121	2014	\$20,595	REPLACE AT 80,000/ 6 YEARS Ford Fusion	1121	Unmarked			\$26,773				
1829	2018	\$27,570	Ford Interceptor Util	1129	Unmarked			\$36,750				
1711	2017	\$41,000	Tahoe	1111	Shift Commander					\$43,410		
0637	2006	\$2,900	Lexus 300 ES	1120	PD Staff					\$31,324		
1110	2012	\$26,423	Ford Taurus	1110	PD Staff					\$36,000		
1823	2018	\$21,000	Ford F150	1123	PD Staff							
1222	2012	\$20,528	Dodge Caravan	1122	PD Staff		\$24,018					
1624	2016	\$20,910	Toyota RAV4	1124	PD Staff							\$27,183
DUMP TRUCKS												
35/48/50 GVW												
0202	2002	\$112,143	REPLACE AT 17 YEARS Freightliner	6	Highway							
0526	2005	\$133,600	Ford Dump (lrg)	26	Highway				\$216,876			
0527	2005	\$133,600	Freightliner	27	Water			\$210,560				
0965	2009	\$151,000	Freightliner	65	Highway							
1803	2018	\$157,000	Inter. Dump	3	Highway							
1405	2014	\$80,463	Inter. Dump	5	Highway							
9508	1995	\$80,463	Inter. Dump	AP5	Airport							
1412	2014	\$80,463	Inter. Dump	12	Highway							
1607	2016	\$178,642	Inter. Dump	7	Highway							
0312	2003	\$120,000	Freightliner	2	Highway	\$178,642						
1704	2017	\$156,000	Inter. Dump	4	Highway							
1910	2019	\$157,000	Inter. Dump	10	Highway							
0201	2002	\$112,143	Freightliner	22	Highway							
09AP8	2009	Grant	Freightliner	AP8	Airport							
1972	2019	\$154,000	Inter. Dump	72	Highway							
1 TON TRUCKS												
10,000 GVW												
0874	2008	\$44,888	REPLACE AT 60,000/10 YEARS Ford Dump (sml)	11	Highway						\$75,860	
1724	2017	\$60,000	Ford F450	24	Highway						\$75,860	
1113	2011	\$23,967	Ford F350 Dump	13	Water				\$54,147			
1774	2017	\$60,000	Ford F450	74	Highway							
1923	2019	\$75,000	Ford F450	23	WW/TP							
4134	2014	\$33,562	GMC K3500	134	Cemetery		\$43,631					\$50,000
0105	2001	\$25,000	Ford E350	54	Water							
1445	2013	\$37,806	Dodge 3500	45	Highway			\$49,148				
1275	2012	\$49,681	Ford F450	75	Highway							
4107	2014	\$26,411	Ford F350	107	Parks & Rec					\$52,800		
1214	2012	\$31,623	Ford F350	14	Water			\$41,110				
1815	2018	\$55,000	Ford F350	15	Water							
9820	1998	\$52,000	Ford F350	20	Fleet		\$67,600					
06AP3	2006	\$22,500	Ford F350	73	Recycle							
1119	2011	\$27,659	Ford F 350	19	Fleet		\$31,200					
3/4 TON TRUCKS												
80,000/10 YEARS												
6130	2016	\$30,000	Ford F250	130	Parks							
8131	2018	\$34,000	Ford F250	131	Parks							
1301	2013	\$22,232	GMC 2500	AP1	Airport						\$40,800	
18AP3	2018	\$22,232	Ford F250	AP3	Airport							
0904	2009	\$22,232	Ford F250	104	Parks		\$33,902					
1116	2011	\$20,483	Ford F250	16	Water					\$57,502		

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027
1/2 TON TRUCKS												
4103	2014	\$31,348	REPLACE AT 70,000/10 YEARS GMC 1500 Crew	103	Parks					\$37,700		
1832	2018	\$24,000	Ford F150	32	Parks							
1538	2015	\$36,000	Ford Interceptor	18	Highway							
1425	2014	\$19,828	GMC 1500	25	Highway					\$37,700		
1/4 TON TRUCKS												
0314	2003	\$15,496	REPLACE AT 70,000/10 YEARS Ford Ranger	314	Water							
0502	2005	\$14,707	Ford Ranger	502	Engineering			\$19,481				
SIDEWALK PLOWS												
1350	2013	\$54,000	REPLACE AT 10 YEARS Wacker WL 30	50	Highway							
1351	2015	\$63,159	Bobcat Tractor	51	Highway							
0653	1999	\$52,000	Trackless (sidewalk plow)	53	Highway					\$140,000		
0752	2007	\$82,357	Trackless (sidewalk plow)	52	Highway							
0649	2006	\$110,000	Trackless (sidewalk plow)	49	Highway							\$140,000
BACKHOE												
1541	2015	\$76,000	REPLACE AT 12 YEARS John Deere 310SK	41	Highway							
1639	2014	\$116,000	Hitachi Excavator	39	Water							
PAYLOADERS												
0115	2001	\$148,964	REPLACE AT 15 YEARS John Deere Payloader	17	Transfer Station					\$140,000		
0634	2006	\$126,667	Komatsu	34	Highway					\$150,000		
1431	2014	\$142,000	SDLG Payloader	33	Highway							
0306	2003	\$161,802	Case Payloader	AP5	Airport							
0607	2006	\$61,595	409 Loader	JCB	Recycle							
TRACTORS												
0407	2004	\$106,472	REPLACE AT 10 YEARS Ford Versatile Tractor	40	Highway							
066AP	2006	\$106,472	Ford Versatile Tractor	60	Airport					\$80,000		
8105	2018	\$31,000	Mahindra	105	Parks & Rec							
9132	2019	\$34,000	Kubota Tractor	132	Cemetery							
1429	2014	\$61,000	Kubota Tractor	29	WWTP					\$34,200		
1410	2014	\$23,400	Toyota Forklift		Recycle							
0513	2005	\$6,190	John Deere 1300	113	Parks & Rec							\$15,000
8109	2018	\$10,000	John Deere X730	109	Parks & Rec							
1117	2011	\$32,250	Volvo MC115C	skid-steer	Highway				\$41,925			
1455	2014	\$45,000	Volvo MC115C	skid-steer	Solid Waste							
0706	2007	\$70,588	Toro Mower	Mower	Cemetery					\$80,000		
6135	2016	\$10,600	Kubota Tractor	135	Cemetery						\$15,867	
0709	2007	\$22,000	Kubota Tractor	AP7	Airport							
SPECIALTY EQUIPMENT												
1528	2015	\$307,000	REPLACE AT 10 YEARS Freightliner VacCon	28	Water/Sewer							
0317	2003	\$204,638	Sterling VacCon	36	Highway					\$425,000		

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027
9408	1994		Oshkosh Snow Blower	AP4	Airport							
AIR COMPRESSORS												
			REPLACE AT 10 YEARS									
9503	1990	\$10,000	Ingersoll Compressor	133	Cemetery					\$29,760		
9714	1997	\$10,000	Lindsay Compressor	88	Highway							
1586	2015	\$13,730	Atlas Compressor	86	Water							
0389	2000	\$10,000	Air Compressor	89	Highway							
CONSTRUCTION EQUIPMENT												
			REPLACE AT 10 YEARS									
0704	2007	\$4,499	Graco Painter	80	Highway							
9012	1990	\$6,000	Snow Blower Attach	80	Highway							
9823	1998	\$10,000	Chipper		Highway							
0912	2009	\$1,788	Woods Brush Hog		Highway							
1244	2012	\$8,000	Whacker Roller		Highway				\$24,310			\$32,000
9410	1994	\$18,700	Forklift		Fleet Services							
9818	1998	\$3,000	Trailer for Highway		Cemetery							
9924	1999	\$8,200	Hydro Tek Steamer		Highway							
0113	2001	\$21,208	Asphalt Reclaimer		Highway		\$53,530					
9301	1993	\$21,208	Asphalt Reclaimer		Highway		\$53,530					
8210	1982	\$20,000	Trailer		Highway			\$25,960				
0010	2000	\$5,800	Miller Curber		Highway							
0022	2000	\$33,000	Cimline Crack Sealer		Highway							
0520	2005	\$9,260	Welder/Generator on Trailer		Fleet Services			\$25,960				
0752F	2007	\$4,999	Trackless Mower Attach		Highway							\$54,000
0011	2000	\$5,225	Stowe Roller		Parks & Rec							
9014	1990	\$20,000	Snoego Blower		Highway				\$25,960			
0663AP	2006		Salsco/Chipper		Airport							
0409	2004		Pronovost Snowblower		Highway							\$20,000
1506	2015	\$8,000	Cam Trailer		Highway							
9815	1998	\$8,000	Pequa Trailer		Parks & Rec							
0036	2000	\$9,995	Vibromax Roller		Highway				\$25,960			
						Total	\$812,356	\$627,576	\$607,746	\$899,767	\$650,556	\$537,969

APPENDIX

Description		Page
Appendix A	General Fund - Projects Beyond 2027	206-215
Appendix B	Water & Sewer Fund - Projects Beyond 2027	216-217
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APPENDIX A

This appendix includes General Fund projects that are NOT included in the proposed FY 2021-2027 CIP but may appear in future CIP documents. These projects have not been included in the CIP for a variety of reasons, including limited resources and the need for additional project analysis and development.

COMMUNITY SERVICES

FIRE DEPARTMENT

Ambulance Replacement

FY 2028 ambulance 19A3 (purchased 2018) estimated replacement \$300,000

Apparatus Replacement

FY 2028 Engine 2 (purchased 2013) estimated cost \$738,386

FY 2029 Fire Alarm Truck (purchased 2015) estimated cost \$198,104

FY 2031 Engine 1 (purchased 2015) estimated cost \$856,000

FY 2033 Quint Ladder 2 (purchased 2017) estimated cost \$1,550,000

FY 2041 Ladder 1 (purchased in 2019) estimated cost \$2,160,000

Cardiac Monitors

Currently, the department has 4 advanced life support defibrillators and 10 AED defibrillator monitors. The advanced life support defibrillators are used on the ambulances to monitor the patient's heart rhythm and have the ability to pace and shock the patient's heart when warranted. The AED units are carried on our front line response units and have the ability only to shock the patient that presents in cardiac arrest. The 4 advanced life support units were replaced starting in FY 2016 and completed in FY 2017. It is expected that between FY 2028-FY 2030 these units will require replacement. The cost to replace the units today without trade-in value is estimated at \$30,000 per unit for the advanced life support unit and \$1,500 for the AED units with an overall replacement cost of \$135,000.

Replacement Life Span = 10 – 15 years

Gear Washer/Extractor and Drying System

Currently, we have two gear washer/extractor systems and one drying system. The Central Station has the newest washer/extractor and a drying system that was purchased in 2012 when we moved into the new Central Station. The gear washer/extractor at Station 2 was purchased in 2002. Department regulations require all structural firefighter gear to be washed after every fire or when contaminated with bodily fluids, etc. to remove harmful containments. This not only extends the life of the gear but also is required to make sure that our employees are not absorbing harmful products into their bodies.

The projected timeframe for replacement for the Central Station and Station 2 washer with the dryer system is FY 2028-2031.

Replacement Life Span = 15-20 years

Estimated Cost = \$45,000

Mobile Radios

The current mobile radios were recently replaced over three years starting in FY 2015 and completed in FY 2017. The department currently has 23 of these units that are used daily to provide communications on all response apparatus. Based on the current information provided by Motorola, it is expected that the replacement of these units will need to start in FY 2028. It is unknown at this time if this can be a multi-year project. The units have an expected 10-year life cycle. Parts for the units are also not available 2-3 years after the model has stopped production. The current cost of the mobile units is \$4,500 per unit and a total replacement cost today that would exceed \$103,500.

Replacement Life Span = 10 years

Portable Radios

The current portable radios are being replaced over a four-year program that started in FY 2017 and will be completed in FY 2020. For the same reasons as the mobile radio replacement project listed above, the replacement of these radios is expected for FY 2029-FY 2030 if we were to purchase over a multi-year period as we are now. I caution the purchasing of equipment like this over multi-years as I did with the current project as it potentially limits the life span and parts availability if the units are purchased near the end of the model years of the radios being produced. We try to make sure that the equipment purchased is "state of the art" and a new model at the time, so we are able to get the longest life span and service availability as possible, but we don't have control over that when models are discontinued. Currently, we have sixty-five portable radios at a cost of \$4,000.

Replacement Life Span = 10 years

Estimated Cost = \$260,000

Station Generator/ Emergency Power Systems

The Central Station system was new in 2012. The Station 2 system was replaced by the state between 2010 and 2012. Both systems will be projected for replacement in FY 2032 depending on their condition and availability of parts. The cost of the units is not known, but the Central Station system is projected at over \$75,000 due to its size. Each generator receives annual maintenance and testing.

Replacement Life Span = 20-25 years

PARKS & RECREATION

Dog Park

The dog park continues to be of discussion within the community; however, community leadership has not been present in raising the funding necessary to build such a facility. The dog park was once listed in the Capital Improvement Program much like the skate park. Although the fundraising goal is significantly less, the impact of a new facility would require additional maintenance and upkeep.

Robin Hood Park Playground Building

Built in the 1960's, this is a small cement block building used for the summer playground with a seasonal restroom facility. Additionally, the building also houses an oil-fueled furnace to maintain warm temperatures in the winter to keep the hoses from freezing for ice-making operations. The 8-week summer program hosts about 80 children who enjoy the many activities the department has to offer. With a new building to accommodate the program, the department could create a revenue stream similar to the Wheelock playground building and pavilion, and bring the bathrooms to current ADA standards.

Estimated Cost = \$200,000

Swimming Pool Rehabilitation – Wheelock

In 2019, the City hired Weston & Sampson to complete a feasibility study of the pools in Wheelock Park and Robin Hood Park. The Robin Hood pool project has been highlighted within the general projects. The report indicated that the two pools had a significant difference in long-term sustainability for future operations. Wheelock pool is structurally sound, but needs continued maintenance and improvements to continue its useful life.

Estimated Cost = \$669,000 (pool, splash pad, mechanical room, and bathing facility)

- Year 1-3 = \$353,000
- Year 4-10 = \$316,000

As noted in the report, the pool is in need of improved maintenance and ADA compliant access. Along with Robin Hood, Wheelock opened in 1964 as a gift to the City from the Keene Lions Club. Wheelock has an ADA facility entrance challenge that will be addressed in the current CIP. Additional improvements will continue through the Parks maintenance plan.

Wheelock Park - Lights

Working with the City Engineering Department, and reviewing the Active and Passive Recreation Management Plan, recreation lighting in Wheelock Park will need to be addressed. Current electric and pole infrastructure is failing on O'Neal and Durling fields, the horseshoe pits, tennis courts, and skating rink as they were all installed in the early to mid-1980s. The youth ball fields were installed as recently as the early 2000s. Technologies have changed with LEDs. Creating a greener footprint and reducing the energy bill is a mission of the City. Working with the Department, park user groups will collaborate to create a capital campaign, seek grants, utilize alternative revenue sources, such as crowdfunding, and partner with local energy providers to fund this project.

Durling Field = \$185,000

O'Neal Field = \$275,000

Wheelock Park – Pump Track

In collaboration with the New England Mountain Bike Association, the City has accepted a donation of construction services to build a new pump track in Wheelock Park. The City Council accepted the donation on Thursday, September 19, 2019. The design phase will be completed in the fall of 2019, and the fundraising toward a \$23,500.00 goal will be accomplished in 2020. It is anticipated to be constructed in 2020.

POLICE DEPARTMENT

Dispatch Consoles

We are currently requesting our dispatch console system be replaced in FY 2022. The vendor states a 15-20 year life cycle for this equipment (software updates are available during this time). If our current out of date system were to be replaced in FY 2022 then the next replacement, barring unforeseen issues with the software or equipment, should be FY 2037.

Estimated FY 2037 Cost = \$338,554

Estimated Year(s) = FY 2037

Exacom Recording System

The EXACOM Hindsight system records all telephone and radio traffic in and out of the Department and has a vendor-supported service agreement life span of six years. Thereafter it must be updated/refreshed in order to continue support. The current system must be replaced in April 2020 or will no longer be supported by Exacom. The current price point for this system does not meet CIP requirements so it is not included in the FY 2021 CIP. However, funding will need to be found to replace this system at the end of FY 2020 or the very beginning of FY 2021 as this system, or a similar system is required not only for Officer safety reasons but as part of our National Accreditation (CALEA 81.2.8). If replaced in FY 2020-2021 the next cycle for a replacement would be in FY 2027, which is included in this CIP, and then again in FY 2033.

Estimated FY 2033 Cost = TBD

Estimated Year(s) = FY 2033

Mobile Radios

Our current CIP contains a request to replace our 27 mobile radios over a three-year period from FY 2023-2025. As with the portables radios, the vendor recommends a 7-10 year life span. Thereafter parts, service, and support stop. If our mobiles are replaced between FY 2023-2025 the next replacement cycle, using a nine-year mark, would begin in FY 2032.

Estimated FY 2032-2034 Cost = \$175,754

Estimated Year(s) = FY 2032-2034

Portable Radios

The life span of portable police radios, per the vendor, is 7-10 years. After this, they are no longer sold or serviced by the vendor and parts are discontinued at a point thereafter. The latest replacement cycle of our portable radios, via the CIP, was/is FY 2019-2021. Using a nine-year mark to begin the replacement of those 55 portable radios over a three-year period would begin the next replacement cycle in FY 2028.

Estimated FY 2028-2030 Cost = \$256,140

Estimated Year(s) = FY 2028-2030

FACILITIES

City Hall Generator and Transfer Switch

The City Hall emergency backup generator is approximately 27 years old with a lifespan of 25 years. City Hall is home to the Emergency Operating Center and the City Data Center; both are required to have a backup power source. The EMG report identified the need and recommends replacement of the unit. Further evaluations agreed with the report findings and the overall condition of the emergency backup generator. The backup generator is at best in fair condition and should be replaced. The recommended lifespan of an emergency backup generator is 20-30 years. Given this is a critical location, Facilities recommends upgrading immediately. It is also recommended to replace the automatic transfer switch at this time. The switch is also in functional condition but is showing its age and it would be cost-effective to be replaced along with the generator. Alternative funding sources to fund this project through grant opportunities are being explored. We are currently seeking a FEMA grant; if approved, the grant would cover 75% of this project.

Estimated Cost = \$77,000

Municipal Building Improvements

The current condition of the Heating, Ventilation and Air Conditioning (HVAC) units at the Marlboro Street municipal complex have been determined to be past their useful lives. As the facilities staff continues to observe system failures, the cost of maintaining and repairing the units continues to increase as the necessary parts become obsolete. Technologies have changed, resulting in higher energy efficiencies and reductions in cost and greenhouse gas emissions. We will move toward our greener footprint by replacing the existing units. Utilizing the EMG report, these units are past their useful life and should be replaced as these units are now 14-18 years old in 2018. The ASHRAE (ASHRAE is the industry organization that sets standards and guidelines for HVAC equipment) life expectancy of these units is 15 years. In addition to the HVAC units, there are four (4) Make-up Air units located in the equipment bay of public works; they are in functional condition, but will be past useful life in the immediate future and should be replaced. They are recommended for replacement by the EMG report in FY 2019. An engineering study is recommended to determine the proper replacement needs which could potentially reduce cost through energy-saving incentives. Facilities will closely monitor equipment condition and replace equipment at end of life with funds held in reserve such as:

- 2- 3 ton HVAC systems for server room KPD \$5,000 each unit total \$10,000 (redundant system)
- 2-7.5 ton HVAC units at \$11,000 each total \$22,000
- 1- 20 ton package gas heating –cooling unit \$32,750

INFORMATION TECHNOLOGY (IT)

Broadband

There are a number of residential neighborhoods in Keene that have very limited Internet connectivity due to the age and condition of the copper telecommunications lines as well as low residential density (homes per mile) and, therefore, the limited potential return on investment for prospective providers. In 2018 the NH legislature passed a bill that authorizes municipalities who follow a specific process to issue bonds to fund broadband expansion projects to addresses that do not have any Internet service options of minimum 25Mb download/3Mb upload speed. This approach would require the City to take on debt, and is better designed for communities with broader geographical and density challenges such as Chesterfield and Dublin, for example, where as many as 80% of addresses do not meet the 25/3 minimum threshold. City staff has been discussing with Consolidated Communications to a possible near-term solution that would avail better Internet options to unserved neighborhoods at little or no cost to the City and minimum ROI to Consolidated. The discussion will continue in this regard.

The most recent Economic Development Plan calls for investment in broadband infrastructure. This CIP does not include any funding for conduits or construction services. One possible approach would be the creation of a capital reserve for the purpose of funding underground conduit installation in concert with road reconstruction projects and other, 3rd party projects that avail opportunities for conduit installation. This approach, however, is limited because it would only result in unconnected segments of conduit and is not likely to affect the neighborhoods that are most in need of broadband. To be successful, it would likely require an agreement with an Internet service provider prepared to utilize the conduit to bring competitive services to Keene that would drive down the cost to consumers.

Database Software

The Database Software project was moved in this CIP from FY 2023 to FY 2022 to align it with the schedule for the replacement of virtual host servers. Licensing for database software is typically tied to the specifications of the servers it is installed on. As servers are replaced with more powerful systems over time, the database licensing costs are likely to be directly impacted.

Storage Area Network

The SAN replacement project remains in FY 2034, but the cost is expected to increase to \$125,000 and has been adjusted in this CIP accordingly. Over the course of the next 5 years, the solution options and associated costs will change, and IT staff will be monitoring which solutions will meet minimum requirements at the lowest cost.

INFRASTRUCTURE

AIRPORT

Aviation Easements and Obstruction Removal

Aviation easement acquisition and obstruction removal have, are, and will be constant topics. The City will generally be eligible for FAA/State funding to around \$500,000 per year with a City matching amount of 5% (\$25,000). There is no immediate funding as of this date due to the use of previously appropriated funds combined with more than a dozen property owners who have voluntarily consented to obstruction removal. Going forward, our airport consultants will be asked to perform new obstruction studies to determine with exactness, where new obstructions are and new budgetary estimates will be advanced.

Dean Memorial Airport Funds

Dean Memorial Airport in N. Haverhill NH has \$300,000 of unused federal/state funds that are available for use by Keene and which we intend to acquire (with City Council approval) to continue to implement the Airport Master Plan projects. Acquiring these funds will cost an additional 5% so that the City expense to access and expend these funds is 10% or \$30,000. There may be existing capital funds to offset this cost but depending upon the timing, this request may come before City Council.

Estimated Cost = \$30,000

Green Hangar Repairs

The so-called 'Green Hangar', empty for several years, is now rented by a tenant, and the city receives approximately \$5,400 annually in rent and real estate taxes. The roof was patched within the past year but leaks badly as it is the original roof on this structure that was built sometime in the 1950s. The metal exterior panels are also in bad shape, and at least the bottom 8 to 10 feet should be replaced. The building should be painted. This building has not had any meaningful repair in decades. We estimate the roof at \$88,000; exterior sheathing at \$24,000. There is no federal/state funding available for this project.

Estimated Cost = \$112,000

Hangar Construction

While the airport has not used tax dollars to construct new hangars, this is a possibility depending upon development trends going forward. Hangars are fundable with FAA/state money and score around 32 out of 100. By comparison, the runway reconstruction project scored 70. Hangar cost estimates are based on the size/capacity. There would be the revenue generated from a city-owned hangar project.

Hex Hangar Repairs

Constructed more than 40 years ago, this hangar came to be owned by the City through a reverter contained in the long-term land lease. Now that it is owned by the City, maintenance of this building should be considered. Upon examination, it was determined that the roof leaks in many areas; the electrical wiring is not per code; many of the hangar door gaskets have deteriorated beyond use; and the building has not been painted in decades, if ever. For cost planning purposes, the roof is estimated at \$55,000; the electrical work at \$3,000; the door gaskets at \$2,000; and the exterior painting at \$3,000. There is no federal or state funding for this project.

Estimated Cost = \$63,000

Municipal Water and Sewer at Terminal Locus

The terminal building, SRE building, and C&S hangar are all served by individual septic systems. The water supply comes through Edgewood but is not connected via a loop to the Swanzy Water Company lines on Rt. 32. The ultimate development interests for this part of the airport would be well-served if municipal sewer service and a continuous water line were installed. Successful development will require an appropriate infrastructure

Estimated Cost = \$700,000 - \$900,000

Obstruction Removal

The airport is mandated to comply with many regulations including those related to safety within the aerial approaches to the four runways. Obstruction clearing (trees basically) is an on-going and perpetual task. While the airport has cleared hundreds of trees over the past two years, more trees need to be trimmed or removed. The airport will continue to assess tree growth around the airport to identify safety issues due to obstructions. The airport will continue to work with property owners in an effort to secure permission to remove obstructions and will seek to purchase aviation easements where necessary. Continuing obstruction removal is eligible for federal/state funding of 95% with the final 5% the responsibility of the City. Some property owners do not want easements but would give consent for obstruction removal without going through the federally required process of survey, appraisal, negotiation, and easement acquisition. This would not be part of federal/state funding.

Estimated Cost = \$35,000

Real Estate Acquisition

While the land owned by the City for airport purposes is currently adequate, properties are available adjacent to the airport and consideration should be given to acquiring more property. For example, land immediately south of Airport Road is presently available and could be used to re-develop the road into the airport. The listed price for this property is \$275,000 for 1.9 acres of land. There are two other properties for sale that are wedged in-between City-owned airport land.

Security/Wildlife Fencing

Security and wildlife fencing is essential to the safe operation of aircraft at the airport. The airport is inspected annually by the NHDOT and FAA. This year's inspection noted the presence of deer on the airport. In 2015 an aircraft struck a deer during take-off, resulting in substantial injuries to the pilot and damage to the airplane.

The airport is partially protected by fencing. The current CIP allocates \$1,350,000 for the design and construction of additional airport perimeter fence, utilizing FAA grants. The CIP funding will not be sufficient to fully enclose the airport. Fully enclosing the airport will require multiple projects over a multi-year period.

There are two primary hurdles to fully fencing the airport. Much of the airport's perimeter is located in wetlands. Placing fencing within the wetlands will require environmental permits and approval from the NHDES. Additionally, Airport Rd is a popular location for bird watching. Concern has been expressed about the impacts fencing may have to bird watching activities.

Estimated Cost = TBD

Runway 20 Precision Approach Path Indicator (PAPI)

The 2020 CIP allocated \$60,000 for the replacement of the existing Runway PAPI system. The equipment is used by pilots to help them stay on the correct approach slope during landing. The existing PAPI system is more than 20 years old and in need of replacement. The project is eligible for funding from the FAA AIP grant program at 90% federal funding, 5% NHDOT funding, and 5% local funding. The project has been moved to the fiscal year 2028. The acquisition of aviation easements and obstruction clearing needs to be completed before the installation of the PAPI equipment.

Estimated Cost = \$60,000

PUBLIC WORKS

Access Road Bridge Replacement

The City owns and maintains a number of bridges that allow access to portions of City-owned property. These include the bridge on the access road to Goose Pond Dam, the access bridge for the Three Mile Dam, a bridge over Ash Swamp Brook near the end of Bent Court, etc. Many of these are nearing the end of their useful life and will require repairs or replacement in the future. Since these are private bridges and used for City operations, they are not eligible for the New Hampshire Department of Transportation funding.

Drainage Main Lining

The City currently has an inventory of approximately 20.2 miles of corrugated metal drainage mains and pipes with over 17 miles having been installed before 1980. These mains and pipes have exceeded their anticipated 30-year service life and will need to be replaced or repaired. The total cost to replace these pipes exceeds \$3.2 million. In the summer of 2017, a short section of metal drainage pipe near the Baker Street Bridge over Beaver Brook collapsed, causing the closure of the westbound lane for several months. We can expect this type of disruptive failure to continue. Beginning in FY 2023 the Public Works Department proposed funding for a lining program for the corrugated metal mains and pipes which is a less disruptive construction process and extends the life of the drainage infrastructure. At the proposed funding profile it is anticipated that it will take over 40 years to complete the lining of the existing metal drainage infrastructure.

Swanzy Factory Road Intersection Improvements

The New Hampshire Department of Transportation's draft Ten Year Plan for FY 2021-2030 includes approximately \$5.8 million in FY 2027 & FY 2029 for the reconfiguration of the Swanzy Factory Road / Route 101 intersection. At this time it is not clear what, if any costs, may be incurred by the City as a result of this project. Although this project is outside of the current CIP time horizon the Department's long-range plans include \$1.2 million for water main replacement in conjunction with this project.

Victoria Street Extension

This project proposes to extend Victoria Street south from Water Street, to connect to Marlboro Street. Work will include property acquisition, engineering design, and construction of approximately 1,200 linear feet of roadway. The 2004 Traffic Committee reviewed various traffic improvements throughout the city. The committee identified the extension of Victoria Street as a critical piece of the Marlboro Street Zoning/Redevelopment Evaluation that was completed in 2014. This extension will open up a large parcel for redevelopment. It will also improve access for truck traffic to businesses located on Victoria Street and reduce the amount of truck traffic in residential neighborhoods.

In 2008 a total of \$163,000 was allocated for preliminary design. The project was suspended after spending limited funds on a topographic survey. In 2016 council voted to reallocate \$155,755 of bond funds previously issued for this project.

The project would also provide funding to install sewer and water mains along the 1,200 feet of new road and would support the redevelopment of adjacent properties and improve the resiliency of the system overall.

Estimated Cost = \$2,003,000

Estimated Cost (Water Fund) = \$347,800

Estimated Cost (Sewer Fund) = \$224,000

West Street Corridor Improvements

Recently completed City projects on Court, Washington and Water Streets along with planned work on Main, Winchester, Marlboro, and Roxbury Streets will address the majority of the City's gateway corridors. Conspicuously absent from this list is West Street. There are no current plans for rehabilitation and upgrade of this critical corridor. However, during the development of the City's Comprehensive Master Plan in 2010, residents and business owners frequently mentioned this corridor as presenting a significant opportunity for reinvestment and economic development.

APPENDIX B

This appendix includes a discussion of the Sewer and Water Funds capital projects that are scheduled for FY 2028 and beyond. Also included is a brief discussion of sewer and water main replacement funding. Due to the nature of aging utility infrastructure, and the scope of the proposed projects, this information is provided in an effort to better inform the long term discussion regarding utility fund infrastructure.

SEWER FUND

Sewer Main Infrastructure

In the fall of 2017, the City applied for and received funding for the development of an Asset Management Plan for our sewer collection system through the Clean Water State Revolving Fund. The plan was completed in 2018. The recently completed inflow and infiltration work in the southeastern area of the City is providing the data needed to complete a rating similar to the risk and consequence analysis performed for water mains. The FY 2021-2027 Capital Improvement Program (CIP) funds approximately 2,300 feet of deficient sewer main or lining per year. With more than 90 miles of sewer main serving more than 90 percent of the City's population, this rate of work sees repair or replacement of the City's entire sewer system over 216 years.

Sewer mains have an expected life of 50-100 years and the risks of operating a main past its expected life include collapse, blockage, and overflows – all of which lead to environmental contamination and unexpected disruption and sewage backups to residents and businesses. The Administrative Order and associated fine levied to the City in 2004 by the federal Environmental Protection Agency were focused on the functionality, operation, and maintenance of the sewer system. The City responded by replacing and upgrading many of the oldest mains. The City's cost for that Administrative Order including fines and project work exceeded \$7 million.

The City's next wastewater discharge permit will include specific requirements for maintenance, operation, and capacity of the sewer mains. The City risks additional fines for permit violations, so an increase in funding the sewer main replacement program is prudent. All sewer projects are funded fully through User fees and Keene's 2018 sewer rates result in a cost to the City's average domestic sewer user of approximately \$707 a year. This remains below NH's 2015 statewide average domestic sewer user cost of approximately \$712 per year.

This project was originally budgeted in the FY 2017 CIP at an estimated cost of \$1.9 million but was moved out because the Advanced Treatment Upgrade became priority and capital project funds were limited. A newer and more functional system for removing grit remains a valid project, but in recognition of budget limitations and competing projects, this project has been moved out approximately 13 years, when the system will be approximately 45 years old. The estimated costs are shown in the table below.

WATER FUND

Water Main Infrastructure

A Water Mains Asset Management Plan was developed in 2016 to provide a qualitative roadmap that would assist staff in prioritizing the replacement or rehabilitation of the City's drinking water mains. Based on the probability and consequences of failure, three of the highest-ranking mains are scheduled for replacement over the 7 years in the FY 2021-2027 CIP. Marlboro Street was replaced as part of the FY 2019 CIP. Due to budget constraints, there are no water main replacements planned in FY 2022, FY 2024, and FY 2027. The City owns more than 100 miles of water mains and is scheduled to replace or line approximately 3.1 miles of water main – the equivalent of approximately 2,500 feet per year -- over the 7 years of the current CIP. While this rate of spending maintains level funding, it does not keep pace with the recommended rehabilitation/replacement rate. At the rate of replacement reflected in the current CIP, all of the City's water mains will be replaced or lined in approximately 217 years. While many of our existing mains have been in service for more than 100 years, it is not reasonable to expect water main to provide a 217-year service life.

The Water Mains Asset Management Plan as presented to City Council in May of 2016 recommends a long-term annual funding rate of approximately \$1.3 million (in 2016 dollars) in order to reduce the required service life from 217 years (current spending level) to a more reasonable service life of 110 years.

All water main projects are fully funded through water user rates. At a cost to an average water customer of \$461 per year in 2018, Keene ranks below NH's 2015 average annual cost of water statewide of \$474. To keep pace with the aging of its entire water infrastructure, Keene's water rates should increase at a rate higher than the cost of inflation.

While failure to replace water mains at this rate doesn't guarantee there will be catastrophic main breaks and severe consequences, it certainly increases that risk. It is recommended the City use the pace of replacement in the Asset Management Plan as a guide for water main infrastructure improvements; while understanding the potential risks associated with underfunding as it strikes a balance between project funding, operating budgets, competing projects, reliable and predictable water service and supply, and water rates.

	Replaced Length (average feet per year)	Funding (average \$ per year)
Proposed Water Main Replacement FY 2021-2027	1,160	\$611,269
Proposed Water Main Lining	1,325	\$247,800
Total CIP 2021-2027	16,420	\$859,069
Asset Management Plan Recommendations		\$1,300,000

Public Works recommends the rate of replacement and lining be increased to approximately \$1,300,000 per year in FY 2028 and beyond, in order to keep pace with the aging pipe network.

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