

Fiscal Years 2023-2029



CAPITAL IMPROVEMENT PROGRAM



*Strategic
Governance
the path to our future*



City of Keene

New Hampshire

January 20, 2022

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, 2029, including the proposed budget for FY 2023 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 City utilizes strategic plans at the department level to advance projects and initiatives over time (ex: Active and Passive Recreation Plan, Watershed Master Plan, Asset Management Plans for Roads, Sewer, Water, and Sidewalks Infrastructure). This year, as part of our effort to more closely align budgets with council goals through a strategic governance process, we have directed focus toward more clearly defining the strategic plans and guiding documents which drive the recommendations in both the operating budget and capital plans. Strategic governance brings together strategic thinking with operational governance to create a sustainable pragmatic approach to decision making focused on high level goals and deployment of strategies necessary to achieve such goals over long periods of time. Working to accomplish the goals of the City's Master Plan and City Council goals, requires many smaller department level plans. Implementation of those plans occurs incrementally over periods of time, often spanning several years and therefore several budgets.

The Capital Improvement Plan is a key document in the strategic governance process with its focus on investing in our City's future. It is a long range plan that is guided by the goals of the City's Master Plan and the City Council. This includes the goals articulated in your fiscal policy which is reviewed and adopted each year. The Capital Plan guides the most significant investments made in the community to move forward goals.

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 preserving and supporting qualities that make our City dynamic, vibrant and one which city residents, businesses, necessary institutions and our region can thrive as we live, learn, work and play.

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 the Comprehensive Master Plan clearly show an emphasis on city road and bridge systems, flood control, support for public safety services and a number of other initiatives (e.g. library, parks, and facilities). This past year the message was also clearly received that sidewalk

infrastructure deserves the same level of attention. To that end, City Staff presented to City Council a sidewalk infrastructure asset management plan that has been incorporated into this document. During upcoming CIP cycles and annual operating budget presentations, City Staff will continue the effort that supports both the community's vision and the council's priorities.

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 OPPORTUNITIES AND 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 regard 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, council goals and City Master Plan input from the community, capital expenditures are identified and presented 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 project details and amounts by department, costs, and funding sources. Expenditure and funding activity anticipated from any capital reserve fund is also presented in the CIP regardless of the amount.

Following a review by the City Council and Planning Board, and a public hearing, the City Council will formally adopt the Capital Improvement Plan and first year of the program is included in the next operating budget proposal (FY 2023) as the capital budget. The second year of the CIP will be reviewed during the subsequent operating budget cycle and will be included in the FY 2024 annual operating budget document.

This CIP includes capital expenditures planned for the seven-year period starting July 1, 2022, and ending June 30, 2029 (FY 2023 - FY 2029). 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 Library Campus Development, Bike Park, proposed skateboard park project and potential dog park. Through engagement with residents, employers, the Chamber of Commerce, social service agencies, other governmental partners and community groups, our organization, community, and City Council priorities advance.

FISCAL POLICY IMPACT

In August of 2021, the City Council participated in a Fiscal Policies Workshop designed to review and update fiscal practices. The Fiscal Policies document with its annual revisions, is used to establish fiscal boundaries for both the Capital Improvements Program and the City operating budget while providing direction that incorporates City Council goals and objectives.

When establishing fiscal boundaries, unassigned fund balance and debt service payments are taken into consideration. Under the current Fiscal Policies, the City is to maintain an unassigned fund balance for the General Fund between 7% and 10% 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. Unassigned fund balance and unanticipated revenues can also be an additional tool when responding to unanticipated emergency expenditures or unforeseen events or provides resources to fund capital projects maintaining budget flexibility by stabilizing or reducing future debt service payment. The funding plan presented in this CIP aligns the City’s unassigned fund balance with fiscal policy.

General Fund Unassigned Fund Balance

2023	2024	2025	2026	2027	2028	2029
13.79%	12.67%	11.53%	10.53%	9.95%	9.59%	9.65%

The current Fiscal Policies on debt service limits the amount of annual payments, on a five (5) year average, at or less than 12% of the General Fund operating budget. The FY 2023-2029 Capital Improvement Program proposes the use of unassigned fund balance to reduce the issuance of debt to fund projects. The City is able to achieve and maintain a General Fund debt service payment percentage within the boundaries established by Fiscal Policies. Estimates of projected debt service levels during this Capital Improvements Plan’s seven year cycle range from 8.6% for FY23 to 7.06% in FY28, although it is important to note that future initiatives anticipated and in the planning stages during FY23 and FY24 could impact out year projects.

The following charts and graphs illustrate debt service payments and total outstanding debt both with and without the West Keene Fire Station project. The construction of the West Keene Fire Station has been included in the capital plan in year 2027 as a place holder and is dependent upon receiving a grant for 80% of the total project. The impact on debt service payments from the potential 20% City match is shown below with the percentages in both scenarios remaining well below the 12% limit established by fiscal policies.

Debt Service With West Keene Fire Station

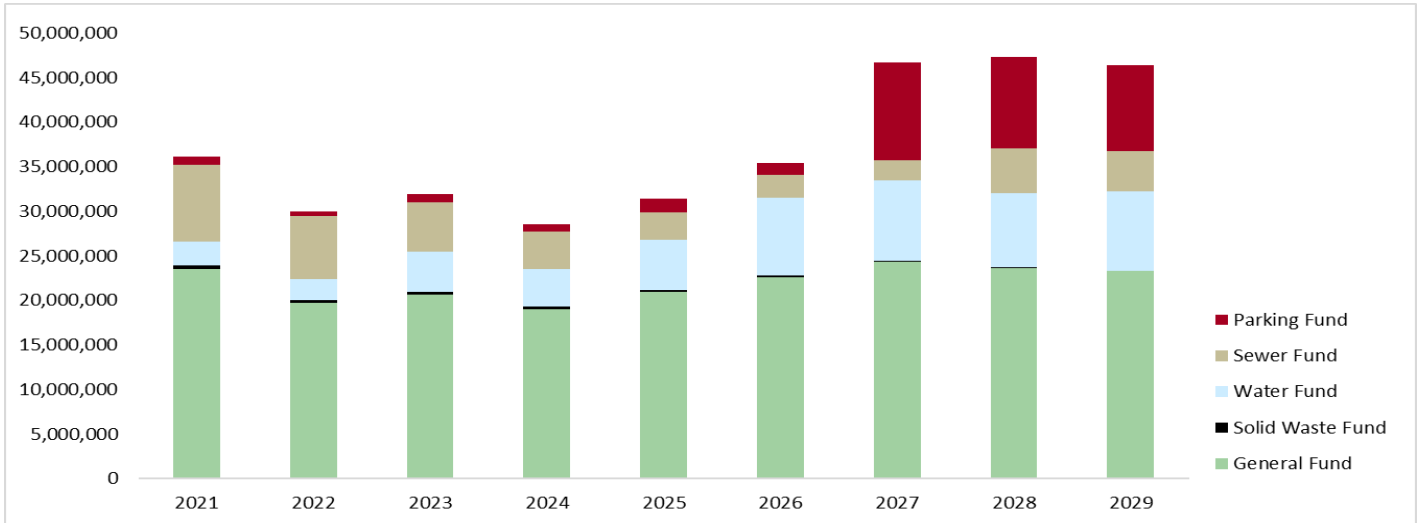
2023	2024	2025	2026	2027	2028	2029
8.60%	7.94%	7.42%	7.79%	7.30%	7.33%	7.52%

Debt Service Without West Keene Fire Station

2023	2024	2025	2026	2027	2028	2029
8.60%	7.94%	7.42%	7.79%	7.26%	7.06%	7.26%

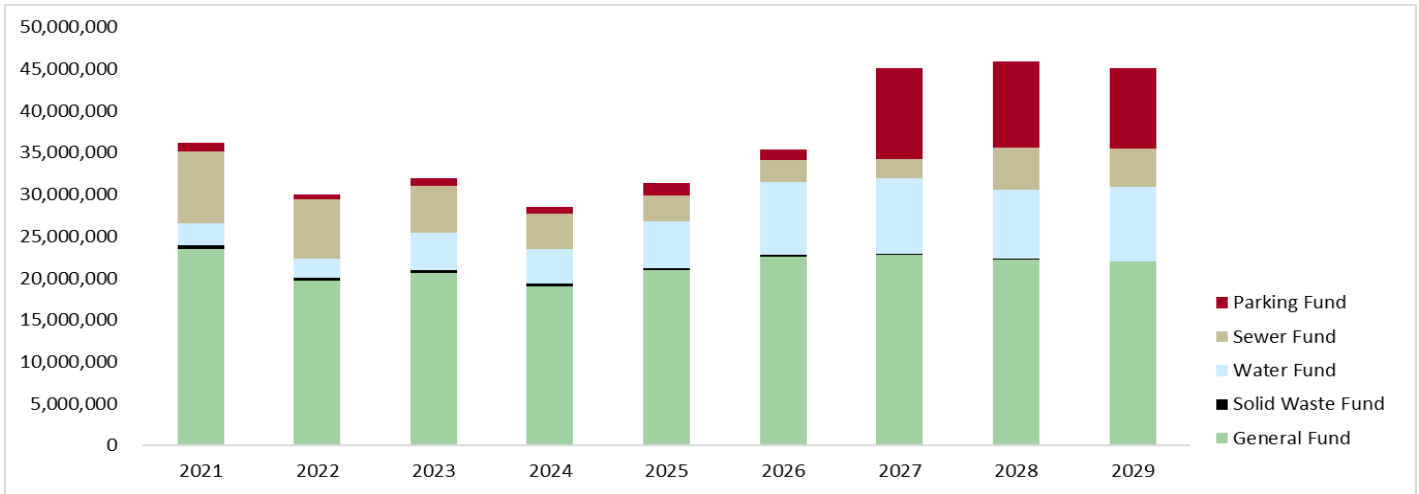
Over the course of this CIP total outstanding debt for all funds increases ~~\$14.4 million with the West Keene Fire Station~~ \$13.1 million without the construction of the West Keene Fire Station. The following charts illustrate the total outstanding debt by fund, beginning with FY21 through FY29. The first graph includes new debt proposed in the CIP and the second graph excludes the debt for the construction of the West Keene Fire Station in FY27.

Outstanding Debt with West Keene Fire Station



	2021	2022	2023	2024	2025	2026	2027	2028	2029
Parking Fund	\$965,000	\$495,000	\$913,000	\$755,700	\$1,469,400	\$1,300,000	\$10,928,600	\$10,269,300	\$9,610,000
Sewer Fund	8,592,400	7,088,178	5,597,455	4,221,232	3,097,953	2,631,466	2,257,239	5,046,588	4,510,267
Water Fund	2,620,789	2,309,929	4,508,000	4,185,800	5,612,600	8,724,800	9,006,267	8,271,933	8,899,600
Solid Waste Fund	451,500	380,000	335,000	290,000	245,000	200,000	155,000	120,000	85,000
General Fund	23,507,928	19,680,773	20,613,868	19,044,080	20,943,254	22,574,504	24,306,027	23,599,946	23,259,700
Total	\$36,137,617	\$29,953,880	\$31,967,323	\$28,496,812	\$31,368,207	\$35,430,770	\$46,653,133	\$47,307,767	\$46,364,567

Outstanding Debt without West Keene Fire Station



	2021	2022	2023	2024	2025	2026	2027	2028	2029
Parking Fund	\$965,000	\$495,000	\$913,000	\$755,700	\$1,469,400	\$1,300,000	\$10,928,600	\$10,269,300	\$9,610,000
Sewer Fund	8,592,400	7,088,178	5,597,455	4,221,232	3,097,953	2,631,466	2,257,239	5,046,588	4,510,267
Water Fund	2,620,789	2,309,929	4,508,000	4,185,800	5,612,600	8,724,800	9,006,267	8,271,933	8,899,600
Solid Waste Fund	451,500	380,000	335,000	290,000	245,000	200,000	155,000	120,000	85,000
General Fund	23,507,928	19,680,773	20,613,868	19,044,080	20,943,254	22,574,504	22,792,027	22,186,879	21,947,567
Total	\$36,137,617	\$29,953,880	\$31,967,323	\$28,496,812	\$31,368,207	\$35,430,770	\$45,139,133	\$45,894,700	\$45,052,433

OPPORTUNITIES AND FUTURE INITIATIVES

The capital planning process and framework directed toward the long term serves as a tool that developing well thought out projects meeting the priorities of the communities and positioning the city to take advantage of grants and other opportunities to supporting attainment of community goals and priorities. The planning element of the CIP is a critical component to success in competitive processes. Appendices in these documents identify on a high level anticipate future initiatives outside this CIP timeframe.

One example demonstrating that impact is the Marlboro Street Corridor Project's recent selection for a NHDOT Transportation Alternatives Program Grant (TAP) for street and safety improvements in FY23 along Marlboro Street. This grant will allow the City to expand the original scope of crosswalk improvements, painted bikes lands, and formal connection to the Cheshire Rail Trail to include extra safety measures, sidewalk reconstructions and lighting along with an asphalt overlay of Marlboro Street from Main Street to Eastern Avenue. The long term planning and project implementation process associated with work in this area and our trails network represent critical elements supporting that selection and inclusion in FY23 of this beneficial project.

A new Robin Hood Park Improvement Project focuses on the infrastructure of the entire Park which has aged significantly, including the concern that the pool was built right on the banks of a reservoir and reached its useful life. This east side park offers a variety of recreational activities though weather and climate change have taken a toll on the natural features of the Park. Keeping in line with the Active and Passive Recreation Management Plan which was used for both Wheelock Park and the Patricia T. Russell Park, the community will have the opportunity to share their ideas and concepts. Engaging the community in the concept and design phase in FY23 will strengthen the connection between the neighborhood while promoting a sustainable and climate resilient park for today, tomorrow, and the future.

Design and construction of the next multi-phase project in the ongoing development of the Cheshire Rail Trail System is scheduled to begin in FY23 instead of FY24. The City was notified that it was recommended for a 'Congressional Directed Spending' project for the first phase which will repair the rail bed from Eastern Avenue to Rt. 101 and prepare the embankment on the north side of Rt. 101 for the historic Prowse Bridge. In FY26, the Prowse Bridge will be relocated from Londonderry, NH to Keene. In FY25 a small roadside trailhead off the Swanzey Factory Road will be constructed and safety railing will be installed on the Stone Arch Bridge. The final phase will be completed in FY27 with the installation of abutments at Swanzey Factory Road and constructing of a new bridge using components from the Island Street Bridge.

The Downtown Infrastructure and Improvement project is in the early stages with preliminary design beginning in FY22. The project's focus is on the replacement/upgrade of the 120 year old infrastructure on Central Square, Main Street from West/Roxbury to Water Street, and side street areas including Lamson Street, Church Street, Railroad Street to 93rd Street and Gilbo Avenue. The downtown is the economic engine for the community and represents the spirit and place of Keene. It is important to continue investment in the downtown to support the businesses and community. A project steering committee will be appointed and charged with reviewing scope and designs, engaging the public by hosting public interaction activities, making recommendations to the City Council, and being an advocate for the project. Community support and input will assist in identifying the needs and desires of the downtown community shaping it for the next 30 years.

Outside of the scope of this CIP, and incorporated in the appendix, are the long awaited improvements to West Street with the planning and design beginning in FY32. The addition of the West Street Corridor Improvements project to the NHDOT's Ten Year Plan will provide the City with the opportunity to update the water and sewer infrastructure at the same time.

In 2013, the City accepted a Facility Asset Inventory report from EMG Corporation. The report included nearly all of the facilities and is used in long term capital planning. Many projects have been completed since the report was issued such as the Library Annex and new boilers at City Hall and some are included in this CIP such as the Parks and

Cemetery Operations building. The report is nearly ten years old and an update is needed to make adjustments in managing future CIP developments and projects.

The Wastewater Treatment Plant recently received a draft update on the renewal of the discharge permit from the EPA. In order to meet the permit requirements, modifications to the plant will be necessary to reduce the permissible levels of aluminum in the Plant's effluent. The nature and cost is not known at this time and it is anticipated that this project will be included in the FY 2025-2031 CIP.

PROJECT REQUESTS AND FINANCIAL INFORMATION

New in the FY2023-2029 CIP book is the introduction of a project 'type'. As project requests are developed and project worksheets are created, each project is now assigned a project category type of either a project or a program. A project could be a single item purchase or a one-time multi-phase project like the Ashuelot River Dam Repair or Removal Project which has both a design phase and an implementation/construction phase. A program type of project is one that is recurring and on-going. Programs are often tied to an asset management plan and may include regular expenditure appropriations. Road Preservation and Rehabilitation, Sidewalk Asset Management, and Sewer Manhole Lining are examples of programs.

As departments create and develop project requests they utilize the tools set forth by fiscal policies and City Council. Adhering to the Comprehensive Master Plan, incorporating Council goals, and considering public and or operational needs present challenges when funding sources are limited. Through research and due diligence the departments are often successful in obtaining alternative funding sources to lessen the burden on the taxpayer for these capital projects. Grants play an integral part in funding many of the City's large capital projects. Of the \$7.2 million in Airport capital projects, \$6.9 million is funded with federal and state grants.

The FY 2023-2029 Capital Improvements Program book contains the following sections:

1) Program Overview (All Funds)

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 2023-2029 CIP.

- a. Financial Overview, including all Funds – a consolidated financial overview of all proposed projects and funding sources included in the proposed CIP.
- b. Consolidated New Debt Schedule – includes the proposed issuance of new debt (all funds).
- c. Multi-Fund Infrastructure Projects – shows the total cost of major infrastructure projects that have outlays in multiple funds (i.e. general, water, and sewer).
- d. 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 years' work.

2) General Fund – used to account for those governmental activities that are not recorded in 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 and the State. 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.

Each Fund section follows a consistent format and includes:

- a. Table of Contents
 - b. Program Overview and Summary - fund basis financial information including detail on property tax, utility rate, and fee projections, et al.
 - c. Debt Summary - debt service schedule providing information on existing and proposed levels of debt service through FY 2029.
 - d. 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.
 - e. Multi-Year Projections – financial projections
 - f. Project Request Worksheets
- 8) Appendix
- a. Appendix A – General Fund projects not included in the proposed FY 2023-2029 CIP and 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 2030 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

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

- Thursday, January 20, 2022 7:00 PM City Council CIP Overview
- Saturday, January 22, 2022 8:00 AM City Council and Planning Board CIP Presentation
- Thursday, January 27, 2022 5:30 PM FOP Committee Review
- Thursday, February 10, 2022 5:30 PM FOP Committee Review
- Thursday, February 24, 2022 5:30 PM FOP Committee Review
- Monday, February 28, 2022 6:30 PM Planning Board
- Thursday, March 3, 2022 7:00 PM Public Hearing
- Thursday, March 10, 2022 6:00 PM FOP Committee Recommendation
- Thursday, March 17, 2022 7:00 PM Council Vote

The Planning Board will conduct its independent review at its February 2022 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

City of Keene, New Hampshire

Capital Improvement Program

FY 2023-2029

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FY 2023-2029 Proposed Capital Improvement Program Financial Overview By Year, Fund, and Funding Source

FY22/23	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,578,146	\$ 760,266	\$ 1,278,000	\$ 2,497,463	\$ 37,000	\$ 8,150,875	46.46%
Parking Fund	276,000	155,800	523,000			954,800	5.44%
Solid Waste Fund	125,000	250,000				375,000	2.14%
Sewer Fund	1,100,000	1,518,893				2,618,893	14.93%
Water Fund	875,000	424,251	2,433,000		300,000	4,032,251	22.98%
Equipment Fund	804,178	607,746				1,411,924	8.05%
TOTAL	\$ 6,758,324	\$ 3,716,956	\$ 4,234,000	\$ 2,497,463	\$ 337,000	\$ 17,543,743	
% of program	38.52%	21.19%	24.13%	14.24%	1.92%	100.00%	

FY23/24	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,567,362	\$ 912,136	\$ 1,508,000	\$ 2,399,616	\$ -	\$ 8,387,114	54.39%
Parking Fund	190,000	57,400				247,400	1.60%
Solid Waste Fund	125,000					125,000	0.81%
Sewer Fund	1,125,000	1,650,506			10,485	2,785,991	18.07%
Water Fund	1,164,793	1,385,796				2,550,589	16.54%
Equipment Fund	635,000	688,965				1,323,965	8.59%
TOTAL	\$ 6,807,155	\$ 4,694,803	\$ 1,508,000	\$ 2,399,616	\$ 10,485	\$ 15,420,059	
% of program	44.14%	30.45%	9.78%	15.56%	0.07%	100.00%	

FY24/25	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,722,396	\$ 3,374,515	\$ 4,997,000	\$ 5,626,464	\$ -	\$ 17,720,375	63.57%
Parking Fund	285,860	32,700	871,000			1,189,560	4.27%
Solid Waste Fund	150,000	351,040				501,040	1.80%
Sewer Fund	1,587,500	1,838,800				3,426,300	12.29%
Water Fund	1,225,000	745,200	1,749,000			3,719,200	13.34%
Equipment Fund	715,000	604,011				1,319,011	4.73%
TOTAL	\$ 7,685,756	\$ 6,946,266	\$ 7,617,000	\$ 5,626,464	\$ -	\$ 27,875,486	
% of program	27.57%	24.92%	27.33%	20.18%	0.00%	100.00%	

FY25/26	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,759,907	\$ 1,653,496	\$ 4,806,000	\$ 4,376,339	\$ -	\$ 14,595,742	61.99%
Parking Fund	65,000	218,000				283,000	1.20%
Solid Waste Fund	125,000					125,000	0.53%
Sewer Fund	1,323,000	1,164,100				2,487,100	10.56%
Water Fund	948,000	358,223	3,551,000			4,857,223	20.63%
Equipment Fund	625,000	570,566				1,195,566	5.08%
TOTAL	\$ 6,845,907	\$ 3,964,385	\$ 8,357,000	\$ 4,376,339	\$ -	\$ 23,543,631	
% of program	29.08%	16.84%	35.50%	18.59%	0.00%	100.00%	

FY26/27	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,794,893	\$ 3,484,370	\$ 4,818,000	\$ 7,569,590		\$ 19,666,853	54.20%
Parking Fund	60,000		9,798,000			9,858,000	27.17%
Solid Waste Fund	125,000					125,000	0.34%
Sewer Fund	1,350,000	1,571,300				2,921,300	8.05%
Water Fund	875,000	603,000	957,000			2,435,000	6.71%
Equipment Fund	625,000	654,569				1,279,569	3.53%
TOTAL	\$ 6,829,893	\$ 6,313,239	\$ 15,573,000	\$ 7,569,590	\$ -	\$ 36,285,722	
% of program	18.82%	17.40%	42.92%	20.86%	0.00%	100.00%	

FY27/28	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,450,750	\$ 2,127,887	\$ 2,321,000	\$ 1,261,384	\$ -	\$ 9,161,021	47.97%
Parking Fund	110,000					110,000	0.58%
Solid Waste Fund	125,000	311,000				436,000	2.28%
Sewer Fund	1,350,000	1,201,900	3,161,000			5,712,900	29.91%
Water Fund	1,130,000	1,191,780				2,321,780	12.16%
Equipment Fund	695,000	660,922				1,355,922	7.10%
TOTAL	\$ 6,860,750	\$ 5,493,489	\$ 5,482,000	\$ 1,261,384	\$ -	\$ 19,097,623	
% of program	35.92%	28.77%	28.71%	6.60%	0.00%	100.00%	

FY28/29	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total	% of program
General Fund	\$ 3,296,935	\$ 661,824	\$ 2,760,000	\$ 3,388,365	\$ -	\$ 10,107,124	56.31%
Parking Fund	60,000					60,000	0.33%
Solid Waste Fund	125,000					125,000	0.70%
Sewer Fund	1,375,000	1,926,400				3,301,400	18.39%
Water Fund	850,000	610,000	1,362,000			2,822,000	15.72%
Equipment Fund	925,000	608,000				1,533,000	8.54%
TOTAL	\$ 6,631,935	\$ 3,806,224	\$ 4,122,000	\$ 3,388,365	\$ -	\$ 17,948,524	
% of program	36.95%	21.21%	22.97%	18.88%	0.00%	100.00%	

**FY 2023 - 2029 Capital Improvement Program
Proposed New Bond Schedule (All Funds)**

	Issue	Term	FY23	FY24	FY25	FY26	FY27	FY28	FY29
General Fund									
	Ashuelot River Dam Repair/Replace	15				802,000			
	Beaver Brook Flood Mitigation	15				504,000	504,000		
	City Hall Structural Repairs	15	1,386,000						
	Lower Winchester Street Reconstruction	10	1,485,000			655,000			
	Municipal Building Roofs	10	541,000						
	Roadway Preservation & Rehabilitation	10	298,000	520,000	488,000	1,417,000	1,290,000	1,571,000	1,525,000
	Robin Hood Park Improvements	15					1,113,000		
	Salt Shed Replacement	10	439,000						
	Stormwater Resiliency	15	7,091,000	988,000	2,293,000	1,428,000	397,000	750,000	1,235,000
	West Keene Fire Station	15	1,514,000				1,514,000		
	General Fund Totals		1,278,000	1,508,000	4,997,000	4,806,000	4,818,000	2,321,000	2,760,000
Parking Fund									
	Wells Street Parking Structure Maintenance	10	523,000						
	West Side Downtown Parking Structure	10	871,000				9,798,000		
	West Side Downtown Parking Structure	20							
	Parking Fund Totals		523,000	-	871,000	-	9,798,000	-	-
Sewer Fund									
	WWTP Sludge Drier	15	3,161,000					3,161,000	
	Sewer Fund Totals		3,161,000	-	-	-	-	3,161,000	-
Water Fund									
	3 MG Water Tank Repair	15	2,433,000						
	Water Distribution Improvements	15	5,052,000		1,749,000	984,000	957,000		1,362,000
	Well Field Upgrades	15	2,567,000			2,567,000			
	Water Fund Totals		2,433,000	-	1,749,000	3,551,000	957,000	-	1,362,000
	Proposed Bond Issues FY 2023-2029		\$4,234,000	\$1,508,000	\$7,617,000	\$8,357,000	\$15,573,000	\$5,482,000	\$4,122,000

2023 - 2029 MULTI-FUND/PROJECT INFRASTRUCTURE PROGRAMS
Projects Consolidated Across Funds and Programs

	pg.	Prior Years	2023	2024	2025	2026	2027	2028	2029	Total
Bridge Replacement ⁽¹⁾⁽²⁾										
Bridge Rehabilitation & Replacement	83-84		15,653	654,520		172,282	22,971	953,293		1,818,719
Water Utility Work - Bridges Program	176			69,700						69,700
Total Bridge Replacement			15,653	724,220	-	172,282	22,971	953,293	-	1,888,419
Church Street										
Stormwater Resiliency	96-97				116,100	1,375,200				1,491,300
Sewer Improvements	143-144				27,500	188,700				216,200
Water Distribution Improvements	172-173				118,400	821,200				939,600
Total Church Street			-	-	262,000	2,385,100	-	-	-	2,647,100
Downtown Revitalization										
Downtown Infrastructure	78-79	680,000			500,000	500,000	500,000			2,180,000
Traffic Signal Replacement	91-92			196,800	202,700					399,500
Stormwater Resiliency	96-97				2,159,300					2,159,300
Sewer Improvements	143-144	277,100		61,935	474,965					814,000
Water Distribution Improvements	172-173	242,000			1,622,600					1,864,600
Total Downtown Revitalization		1,199,100	-	258,735	4,959,565	500,000	500,000	-	-	7,417,400
Island Street										
Stormwater Resiliency	96-97		86,600	981,000						1,067,600
Sewer Improvements	143-144		66,000	453,400						519,400
Water Distribution Improvements	172-173		113,600	780,100						893,700
Total Island Street			266,200	2,214,500	-	-	-	-	-	2,480,700
State Bypass Projects ⁽³⁾										
Lower Winchester Street Reconstruction	85-86		232,651		4,030,000	1,375,000				5,637,651
Lower Winchester Street - Sewer Infrastructure	147				337,500					337,500
Lower Winchester Street - Water Infrastructure	175				300,000					300,000
Total State Bypass Project			232,651	-	4,667,500	1,375,000	-	-	-	6,275,151
Travel Surface Improvements										
Road Preservation & Rehabilitation	80-82		1,148,000	1,370,000	1,378,000	1,417,000	1,290,000	1,571,000	1,570,000	9,744,000
Sidewalk Asset Management	89-90		272,400	290,600	297,000	291,840	261,000	279,000	286,800	1,978,640
Total Travel Surface Improvements			1,420,400	1,660,600	1,675,000	1,708,840	1,551,000	1,850,000	1,856,800	11,722,640

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

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

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

2023 - 2029 CIP "Other" Project Financing Detail by Year

FY 22-23

Department	Project Name	Fund	Source	\$
Parks & Rec	Marlboro Street Corridor/Trail Connector	General	Project Balance Reappropriation 90022 - Stormwater Spot Repairs	37,000
Public Works	Water Main Cleaning & Lining	Water	Use of Surplus	300,000
Total				337,000

FY 23-24

Department	Project Name	Fund	Source	\$
Public Works	WWTP Air Compressor Replacement	Sewer	Eversource Rebate - City Council 10/21/21	10,485
Total				10,485

FY 24-25

Department	Project Name	Fund	Source	\$
	N/A			
Total				-

FY 25-26

Department	Project Name	Fund	Source	\$
	N/A			
Total				-

FY 26-27

Department	Project Name	Fund	Source	\$
	N/A			
Total				-

FY 27-28

Department	Project Name	Fund	Source	\$
	N/A			
Total				-

FY 28-29

Department	Project Name	Fund	Source	\$
	N/A			
Total				-

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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.

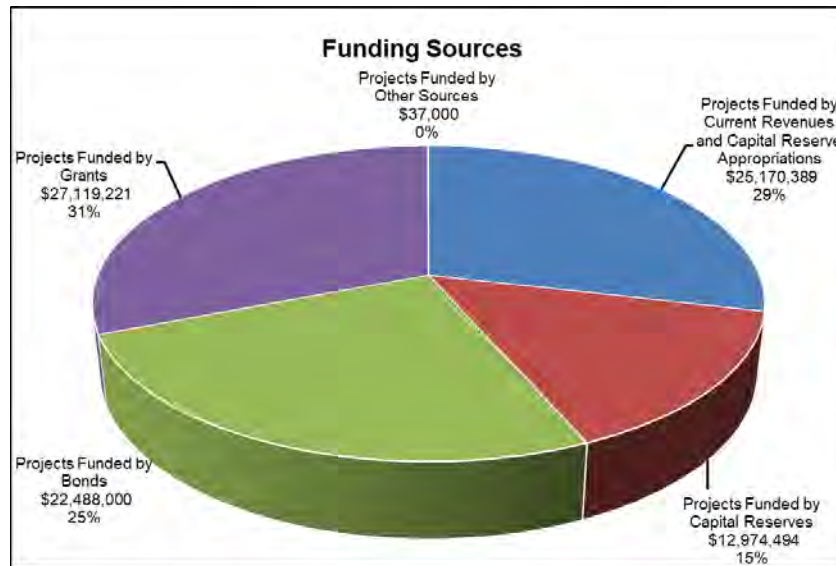
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IT Systems and Infrastructure Capital Reserve	21
Parks and Facilities Infrastructure Capital Reserve (Proposed)	22
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General Fund Multi-Year Projections	26-27

GENERAL FUND

The General Fund section of the CIP represents requests submitted by the majority of City departments and reviewed with the City Manager. These projects range from server replacements to major road reconstruction projects that span over the seven (7) years presented in this CIP book. The total of General Fund projects included in the FY2023-2029 CIP is \$87,789,104 or 56% of the total dollar amount of \$157,714,788 for all funds.

	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total
FY22/23	\$ 3,578,146	\$ 760,266	\$ 1,278,000	\$ 2,497,463	\$ 37,000	\$ 8,150,875
FY23/24	3,567,362	912,136	1,508,000	2,399,616	0	8,387,114
FY24/25	3,722,396	3,374,515	4,997,000	5,626,464	0	17,720,375
FY25/26	3,759,907	1,653,496	4,806,000	4,376,339	0	14,595,742
FY26/27	3,794,893	3,484,370	4,818,000	7,569,590	0	19,666,853
FY27/28	3,450,750	2,127,887	2,321,000	1,261,384	0	9,161,021
FY28/29	3,296,935	661,824	2,760,000	3,388,365	0	10,107,124
TOTAL	\$ 25,170,389	\$ 12,974,494	\$ 22,488,000	\$ 27,119,221	\$ 37,000	\$ 87,789,104

Not all projects are funded with revenues raised through taxation. Departments search for alternative funding sources to lessen the taxpayer burden. Bonding, grants, capital reserves, and other sources consist of 71% of the funding with current revenues making up the difference of 29% over the seven (7) years covered in this CIP. The pie chart below summarizes the level of the General Fund funding sources proposed in this CIP.



The General Fund section of the FY2023-2029 CIP book is organized into three (3) sections. These sections represent the three main functional areas of the City's operations.

- **Community Services**

Included in Community Services are programs that relate 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.

Some of the projects in this section are the Comprehensive Master Plan Update, 10-year Digital Base Map Update, Ambulance Replacement, Municipal Park Improvements, Ashuelot River Dam

Repair/Replacement, and Police Mobile Radio Replacement. The total cost of projects presented in the Community Services section is \$13,288,684.

- **Internal Support**

Services that the City provides to support its own internal operation are included in the Internal Support section. Departments include Assessing, Finance, Information Technology, and Facilities. The primary goal and focus of these departments is to support all departments and City operations, and to maintain the City’s structures and operational assets in good working condition, in an environmentally friendly, and economically efficient manner.

Projects include, but are not limited to, City Revaluation, Municipal Building Improvements, Parking Lot Paving, and Server Replacement. The total cost of the projects presented in the Internal Support section is \$14,649,383.

- **Infrastructure**

The 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 are in this section. This grouping of projects 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 and the State. 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.

Infrastructure projects such as Airport Beacon Replacement, Pavement Maintenance and Marking, Perimeter Fencing, Terminal Apron Expansion, Sidewalk Asset Management, and Stormwater Resiliency are included in this section. The total cost of projects in this section is \$43,645,941.

To help smooth out spikes in funding needed for capital projects, the City utilizes capital reserve accounts. These accounts are similar to a savings account for a particular purpose. Included in the General Fund section of the CIP is funding for the capital reserves.

The following chart shows the annual Capital Reserve Appropriations and General Fund Capital Improvements Program by each of the sections described above.

	Capital Reserve Appropriations	Community Services	Internal Support	Infrastructure	Total
FY22/23	\$ 2,259,336	\$ 1,841,335	\$ 1,177,500	\$ 2,872,704	\$ 8,150,875
FY23/24	2,292,670	505,242	565,782	5,023,420	8,387,114
FY24/25	2,312,670	1,745,260	3,161,089	10,501,356	17,720,375
FY25/26	2,300,210	2,850,310	845,900	8,599,322	14,595,742
FY26/27	2,350,210	4,591,985	8,019,712	4,704,946	19,666,853
FY27/28	2,345,000	1,336,828	714,400	4,764,793	9,161,021
FY28/29	2,345,000	417,724	165,000	7,179,400	10,107,124
TOTAL	\$ 16,205,096	\$ 13,288,684	\$ 14,649,383	\$ 43,645,941	\$87,789,104

New Initiatives

Projects and Programs

In order to enable better reporting, the project worksheets now include a “type”. Each project has been categorized as either a project or a program. Projects are one-time stand-alone items such as the phone system replacement. Some projects may have multi-phases including study, design, engineering and construction such as the Downtown Infrastructure Improvement and Reconstruction Project.

Programs are recurring and on-going, often associated with an asset management plan, and include regular (often annual) expenditure appropriations. An example would be the Road Preservation and Rehabilitation Program.

Debt Reduction and Annual Taxpayer Impact

In order to lessen the impact to taxpayers, minimize debt issuance, and reduce annual budget spikes caused by upcoming large infrastructure projects such as the Recreation Center Renovation, City Hall Structural Repairs, and Robin Hood Park Improvements, the 2023-2029 CIP proposes the use of surplus funds and ARPA Local Fiscal Recovery Funds (LFRF) grant funds. ARPA LFRF grant funds totaling \$2,550,000 will be used to reduce debt issuance for the Roadway Preservation and Rehabilitation Program (\$850,000/year FY23-FY25).

Surplus funds of \$6,125,000 (\$875,000/year FY23-FY29) will be deposited into a new Capital Reserve - Parks and Facilities Infrastructure Capital - to fund, wholly or in part, upgrades, renovations, improvements, replacement, maintenance and the operation thereof of City facilities and Park components and apparatus, including but not limited to, buildings, building systems, roofs, paved areas, park equipment, play areas, and structures. These funds will be expended to reduce debt issuance or use of current revenues for the Paving Parking Lots Program, Recreation Center Renovation Project and Robin Hood Park Improvements Project.

Proposed New General Fund Projects

- EMS Non-disposable Equipment Program – a new program in FY24 to enable the planning for future replacement of Fire Department advanced life support non-disposable equipment.
- Marlboro Street Corridor Improvements/Trail Connector Project-NHDOT recommended the expanded scope of the complete street and safety improvements along Marlboro Street to include extra safety measures including flashing crosswalk improvements, signage, etc. The City will be responsible for a 20% match with 80% being funded from a NHDOT TAP grant.
- Robin Hood Park Improvement Project – this project replaces the Robin Hood Pool Improvement project and expands the scope to include not only the future of the pool but the playground building, topography and water flow, tennis court location, etc. The community will be encouraged to share ideas and concepts for the future of the Robin Hood Park.
- Parks and Cemetery Operations Building Project – improvements of the 1984 Parks and Cemetery building in Monadnock View Cemetery such as painting, upgrading bathrooms to ADA compliance, upgrading lighting to LED, and addition of expansion bays to keep equipment covered.
- West Street Corridor Improvements Project – preliminary engineering is scheduled for FY27 with construction in FY32 to improve the West Street corridor. This project is included in the NHDOT draft FY2023-2032 Ten Year Plan.
- Sidewalk Asset Management Program – this program replaces the prior Sidewalk Repair/Replacement and Curb Repair/Replacement projects and will fund the repair or replacement of sidewalks and associated curbing throughout the City in accordance with the recent Sidewalk Asset Management Plan.
- Stormwater Channel Maintenance Program – the program is intended to restore design flow over the entirety of the City's 33 miles of stream channels, basins and flood control facilities.

General Fund

Capital Improvement Program Summary

2023-2029 Project Listing By Department

2023-2029									
PAGE #	PROJECT NAME	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
<u>CAPITAL RESERVE APPROPRIATIONS</u>									
16	Ambulance Replacement Capital Reserve	90,000	90,000	100,000	110,000	110,000	110,000	110,000	720,000
17	Apparatus (Fire) Replacement Capital Reserve	350,000	350,000	375,000	375,000	375,000	375,000	400,000	2,600,000
18	Bridges Capital Reserve	119,336	127,670	127,670	105,210	105,210	125,000	125,000	835,096
19	Downtown Infrastructure Capital Reserve	225,000	250,000	250,000	250,000	250,000	250,000	250,000	1,725,000
20	Emergency Communication Capital Reserve	60,000	60,000	60,000	60,000	60,000	60,000	60,000	420,000
21	IT Systems & Infrastructure Capital Reserve	100,000	100,000	100,000	100,000	150,000	125,000	100,000	775,000
22	Parks & Facilities Infrastructure Capital Reserve	875,000	875,000	875,000	875,000	875,000	875,000	875,000	6,125,000
23	Reappraisal Capital Reserve	50,000	50,000	35,000	35,000	35,000	35,000	35,000	275,000
24	Road & Sidewalk Infrastructure Capital Reserve	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,100,000
25	Transportation Improvement Capital Reserve	90,000	90,000	90,000	90,000	90,000	90,000	90,000	630,000
	TOTAL CAPITAL RESERVE APPROPRIATIONS	\$ 2,259,336	\$ 2,292,670	\$ 2,312,670	\$ 2,300,210	\$ 2,350,210	\$ 2,345,000	\$ 2,345,000	\$ 16,205,096
<u>AIRPORT</u>									
74	Beacon Replacement			500,000					500,000
70	Obstruction Management Program			166,700	166,700	166,700	330,000	166,700	996,800
71	Pavement Maintenance & Marking			166,700	74,000	54,000			294,700
69	Perimeter Fence	270,000	1,080,000						1,350,000
72	Snow Removal Equipment			555,556					555,556
73	Terminal Apron Expansion						195,000	3,400,000	3,595,000
	TOTAL AIRPORT	\$ 270,000	\$ 1,080,000	\$ 1,388,956	\$ 240,700	\$ 220,700	\$ 525,000	\$ 3,566,700	\$ 7,292,056
<u>ASSESSMENT</u>									
50	Revaluation Program			138,000					138,000
	TOTAL ASSESSMENT	-	-	138,000	-	-	-	-	138,000
<u>COMMUNITY DEVELOPMENT</u>									
31	10-Year Digital Base Map Update			150,000					150,000
30	Comprehensive Master Plan Update		50,000	40,000					90,000
	TOTAL COMMUNITY DEVELOPMENT	\$ -	\$ 50,000	\$ 190,000	\$ -	\$ -	\$ -	\$ -	\$ 240,000
<u>FIRE</u>									
32/33	Ambulance Replacement Program			285,000			310,000		595,000
32/34	Apparatus Replacement Program	115,000		756,396			760,000	198,104	1,829,500
37	EMS Non-disposable Equipment Program		18,700	21,000	76,000	76,000	40,500	20,700	252,900
38	Gear Washer/Extractor & Drying System		25,000				30,000		55,000
36	Hydraulic Rescue Tools					60,000			60,000
35	SCBA Fill Station					60,000			60,000
	TOTAL FIRE	\$ 115,000	\$ 43,700	\$ 1,062,396	\$ 76,000	\$ 196,000	\$ 1,140,500	\$ 218,804	\$ 2,852,400
<u>INFORMATION TECHNOLOGY</u>									
59	Database Software Upgrade Program		24,000		25,000		24,000		73,000
60/61	Network Equipment Replacement Program		18,000	50,200	37,800	112,800	73,500	8,000	300,300
65	Phone System Replacement	261,500							261,500
62/63	Server Replacement Program	25,000		30,000	15,000	53,000	10,000		133,000
64	Storage Area Network				189,400				189,400
	TOTAL INFORMATION TECHNOLOGY	\$ 286,500	\$ 42,000	\$ 80,200	\$ 267,200	\$ 165,800	\$ 107,500	\$ 8,000	\$ 957,200
<u>PARKS, RECREATION, CEMETERIES & FACILITIES</u>									
42	Ashuelot River Dam Repair or Removal		172,910		802,000				974,910
44	Marlboro Street Corridor/Trail Connector	1,124,000							1,124,000
39/40	Municipal Parks Maintenance Program	75,000	75,000	75,000	75,000	75,000	75,000	75,000	525,000
41	Open Space and Trails Program	50,000	104,900	35,000	35,000	35,000	35,000	35,000	329,900
45	Robin Hood Park Improvements	35,000				3,863,000			3,898,000
43	Transportation Heritage Trail Program	386,400		321,195	1,862,310	381,685			2,951,590
	<i>Subtotal Parks, Recreation & Cemeteries</i>	<i>1,670,400</i>	<i>352,810</i>	<i>431,195</i>	<i>2,774,310</i>	<i>4,354,685</i>	<i>110,000</i>	<i>110,000</i>	<i>9,803,400</i>
57	City Hall Structural Repairs			1,386,000					1,386,000
51/52	Municipal Building Capital Maintenance Program	175,000	100,000	100,000	100,000	100,000	100,000	100,000	775,000
53	Municipal Building Roofs Program	541,000	138,782	95,639	128,700	105,256	147,500	57,000	1,213,877
56	Parks and Cemetery Operations Building			180,000					180,000
54	Paving Parking Lots Program				350,000	126,676	359,400		836,076
55	Recreation Center Renovation		285,000	1,181,250					1,466,250
58	W Keene Fire Station Project	175,000				7,521,980			7,696,980
	<i>Subtotal Facilities</i>	<i>891,000</i>	<i>523,782</i>	<i>2,942,889</i>	<i>578,700</i>	<i>7,853,912</i>	<i>606,900</i>	<i>157,000</i>	<i>13,554,183</i>
	TOTAL PARKS, RECREATION, CEMETERIES & FACILITIES	\$ 2,561,400	\$ 876,592	\$ 3,374,084	\$ 3,353,010	\$ 12,208,597	\$ 716,900	\$ 267,000	\$ 23,357,583

2023-2029 General Fund Project Listing By Department (Cont'd)

2023-2029										
PAGE #	PROJECT NAME	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL	
	POLICE									
48	EXACOM Hindsight System Replacement/Refresh					41,300			41,300	
47	Mobile Radio Replacement Program	55,935	58,732	61,669					176,336	
46	Portable Radios Program						86,328	88,920	175,248	
	TOTAL POLICE	\$ 55,935	\$ 58,732	\$ 61,669	\$ -	\$ 41,300	\$ 86,328	\$ 88,920	\$ 392,884	
	PUBLIC WORKS									
95	Beaver Brook Flood Mitigation				504,000	504,000			1,008,000	
83/84	Bridge Rehabilitation & Replacement Program	15,653	654,520		172,282	22,971	953,293		1,818,719	
93/94	Dam Maintenance Program		144,400		171,500		174,900		490,800	
78/79	Downtown Infrastructure Improve & Reconstruction			500,000	500,000	500,000			1,500,000	
85/86	Lower Winchester Street Reconstruction	232,651		4,030,000	3,175,000				7,437,651	
80/82	Roadway Preservation & Rehabilitation Program	1,148,000	1,370,000	1,378,000	1,417,000	1,290,000	1,571,000	1,570,000	9,744,000	
103	Salt Shed Replacement	439,000							439,000	
89/90	Sidewalk Asset Management Program	272,400	290,600	297,000	291,840	261,000	279,000	286,800	1,978,640	
98	Stormwater Channel Maintenance Program			100,000	200,000	200,000	200,000	200,000	900,000	
101/102	Stormwater Main Lining Program	144,500	223,900	194,200	170,400	179,100	184,500	190,000	1,286,600	
96/97	Stormwater Resiliency Program	86,600	988,000	2,293,000	1,428,000	397,000	750,000	1,235,000	7,177,600	
99	Stormwater Spot Repairs Program	73,000	75,200	77,500	79,800	82,200	84,700	87,200	559,600	
100	Stormwater System Analysis Program				40,000	41,200	42,400	43,700	167,300	
91/92	Traffic Signal Replacement Program	190,900	196,800	242,700	208,800	221,500			1,060,700	
87/88	West Street Corridor Improvements					785,275			785,275	
	TOTAL PUBLIC WORKS	\$ 2,602,704	\$ 3,943,420	\$ 9,112,400	\$ 8,358,622	\$ 4,484,246	\$ 4,239,793	\$ 3,612,700	\$ 36,353,885	
	GRAND TOTAL - GENERAL FUND 2023-2029	\$ 8,150,875	\$ 8,387,114	\$ 17,720,375	\$ 14,595,742	\$ 19,666,853	\$ 9,161,021	\$ 10,107,124	\$ 87,789,104	

General Fund

2023-2029 Project Listing By Funding Source

2023-2029										
PAGE #	PROJECT NAME	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL	
GRAND TOTAL - GENERAL FUND 2023-2029		\$ 8,150,875	\$ 8,387,114	\$ 17,720,375	\$ 14,595,742	\$ 19,666,853	\$ 9,161,021	\$ 10,107,124	\$ 87,789,104	
CAPITAL RESERVE APPROPRIATIONS										
16	Ambulance Replacement Capital Reserve	90,000	90,000	100,000	110,000	110,000	110,000	110,000	720,000	
17	Apparatus (Fire) Replacement Capital Reserve	350,000	350,000	375,000	375,000	375,000	375,000	400,000	2,600,000	
18	Bridges Capital Reserve	119,336	127,670	127,670	105,210	105,210	125,000	125,000	835,096	
19	Downtown Infrastructure Capital Reserve	225,000	250,000	250,000	250,000	250,000	250,000	250,000	1,725,000	
20	Emergency Communication Capital Reserve	60,000	60,000	60,000	60,000	60,000	60,000	60,000	420,000	
21	IT Systems & Infrastructure Capital Reserve	100,000	100,000	100,000	100,000	150,000	125,000	100,000	775,000	
22	Parks & Facilities Infrastructure Capital Reserve	875,000	875,000	875,000	875,000	875,000	875,000	875,000	6,125,000	
23	Reappraisal Capital Reserve	50,000	50,000	35,000	35,000	35,000	35,000	35,000	275,000	
24	Road & Sidewalk Infrastructure Capital Reserve	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,100,000	
25	Transportation Improvement Capital Reserve	90,000	90,000	90,000	90,000	90,000	90,000	90,000	630,000	
TOTAL CAPITAL RESERVE APPROPRIATIONS		\$ 2,259,336	\$ 2,292,670	\$ 2,312,670	\$ 2,300,210	\$ 2,350,210	\$ 2,345,000	\$ 2,345,000	\$ 16,205,096	
PROJECT FUNDING DETAIL										
CAPITAL RESERVES										
32/33	Ambulance Replacement Program			285,000			310,000		595,000	
34/34	Apparatus Replacement Program	115,000		756,396			760,000	198,104	1,829,500	
83/84	Bridge Rehabilitation & Replacement Program	3,131	130,904		34,456	4,594	190,659		363,744	
59	Database Software Upgrade Program		24,000		25,000		24,000		73,000	
78/79	Downtown Infrastructure Improve & Reconstruction			500,000	500,000	500,000			1,500,000	
48	EXACOM Hindsight System Replacement					41,300			41,300	
44	Marlboro Street Corridor/Trail Connector	203,800							203,800	
47	Mobile Radio Replacement Program	55,935	58,732	61,669					176,336	
60/61	Network Equipment Replacement Program		18,000	50,200	37,800	112,800	73,500	8,000	300,300	
41	Open Space and Trails Program	50,000	104,900	35,000	35,000	35,000	35,000	35,000	329,900	
54	Paving Parking Lots Program				350,000	126,676	359,400		836,076	
46	Portable Radios Program						86,328	88,920	175,248	
55	Recreation Center Renovation		285,000	1,181,250					1,466,250	
50	Revaluation Program			138,000					138,000	
80/82	Roadway Preservation & Rehabilitation Program			40,000				45,000	85,000	
45	Robin Hood Park Improvements	35,000				2,350,000			2,385,000	
62/63	Server Replacement Program	25,000		30,000	15,000	53,000	10,000		133,000	
89/90	Sidewalk Asset Management Program	272,400	290,600	297,000	291,840	261,000	279,000	286,800	1,978,640	
64	Storage Area Network				189,400				189,400	
43	Transportation Heritage Trail Program				175,000				175,000	
TOTAL PROJECTS FUNDED WITH CAPITAL RESERVES		\$ 760,266	\$ 912,136	\$ 3,374,515	\$ 1,653,496	\$ 3,484,370	\$ 2,127,887	\$ 661,824	\$ 12,974,494	
CURRENT REVENUES										
31	10 Year Digital Base Map Update			150,000					150,000	
42	Ashuelot River Dam Repair or Removal		172,910						172,910	
74	Beacon Replacement			25,000					25,000	
30	Comprehensive Master Plan Update		50,000	40,000					90,000	
93/94	Dam Maintenance Program		144,400		171,500		174,900		490,800	
37	EMS Non-disposable Equipment Program		18,700	21,000	76,000	76,000	40,500	20,700	252,900	
38	Gear Washer/Extractor & Drying System		25,000				30,000		55,000	
36	Hydraulic Rescue Tools					60,000			60,000	
85/86	Lower Winchester Street Reconstruction	46,530							46,530	
51/52	Municipal Building Capital Maintenance Program	175,000	100,000	100,000	100,000	100,000	100,000	100,000	775,000	
53	Municipal Building Roofs Program		138,782	95,639	128,700	105,256	147,500	57,000	672,877	
39/40	Municipal Parks Maintenance Program	75,000	75,000	75,000	75,000	75,000	75,000	75,000	525,000	
70	Obstruction Management Program			8,335	8,335	8,335	16,500	8,335	49,840	
56	Parks and Cemetery Operations Building			180,000					180,000	
71	Pavement Maintenance & Marking			8,335	3,700	2,700			14,735	
69	Perimeter Fence	13,500	54,000						67,500	
65	Phone System Replacement	261,500							261,500	
35	SCBA Fill Station					60,000			60,000	
72	Snow Removal Equipment			27,778					27,778	
98	Stormwater Channel Maintenance Program			100,000	200,000	200,000	200,000	200,000	900,000	
101/102	Stormwater Main Lining Program	144,500	223,900	194,200	170,400	179,100	184,500	190,000	1,286,600	
96/97	Stormwater Resiliency Program	86,600							86,600	
99	Stormwater Spot Repairs	73,000	75,200	77,500	79,800	82,200	84,700	87,200	559,600	
100	Stormwater System Analysis Program				40,000	41,200	42,400	43,700	167,300	
73	Terminal Apron Expansion						9,750	170,000	179,750	
91/92	Traffic Signal Replacement Program	190,900	196,800	242,700	208,800	221,500			1,060,700	
43	Transportation Heritage Trail Program	77,280		64,239	197,462	76,337			415,318	
87/88	West Street Corridor Improvements Project					157,055			157,055	
58	W Keene Fire Station Project	175,000							175,000	
TOTAL PROJECTS FUNDED WITH CURRENT REVENUES		\$ 1,318,810	\$ 1,274,692	\$ 1,409,726	\$ 1,459,697	\$ 1,444,683	\$ 1,105,750	\$ 951,935	\$ 8,965,293	

2023-2029 General Fund Project Listing By Funding Source (Cont'd)

2023-2029									
PAGE #	PROJECT NAME	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
DEBT									
42	Ashuelot River Dam Repair or Removal				802,000				802,000
95	Beaver Brook Flood Mitigation				504,000	504,000			1,008,000
57	City Hall Structural Repairs			1,386,000					1,386,000
85/86	Lower Winchester Street Reconstruction			830,000	655,000				1,485,000
53	Municipal Building Roofs Program	541,000							541,000
80/82	Roadway Preservation & Rehabilitation Program	298,000	520,000	488,000	1,417,000	1,290,000	1,571,000	1,525,000	7,109,000
45	Robin Hood Park Improvements					1,113,000			1,113,000
103	Salt Shed Replacement	439,000							439,000
96/97	Stormwater Resiliency Program		988,000	2,293,000	1,428,000	397,000	750,000	1,235,000	7,091,000
58	W Keene Fire Station Project					1,514,000			1,514,000
	TOTAL PROJECTS FUNDED WITH DEBT	\$ 1,278,000	\$ 1,508,000	\$ 4,997,000	\$ 4,806,000	\$ 4,818,000	\$ 2,321,000	\$ 2,760,000	\$ 22,488,000
OTHER FUNDING SOURCES									
44	Marlboro Street Corridor Improvements/Trail Connector (project balance)	37,000							37,000
	TOTAL PROJECTS FUNDED WITH OTHER SOURCES	\$ 37,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,000
GRANTS									
74	Beacon Replacement (90/5/5)			475,000					475,000
83/84	Bridge Rehabilitation & Replacement Program (80/20)	12,522	523,616		137,826	18,377	762,634		1,454,975
85/86	Lower Winchester Street Reconstruction (80/20)	186,121		3,200,000	2,520,000				5,906,121
44	Marlboro Street Corridor/Trail Connector (80/20)	883,200							883,200
70	Obstruction Management Program (90/5/5)			158,365	158,365	158,365	313,500	158,365	946,960
71	Pavement Maintenance & Marking (90/5/5)			158,365	70,300	51,300			279,965
69	Perimeter Fence (90/5/5)	256,500	1,026,000						1,282,500
89/82	Roadway Preservation & Rehabilitation Program (100)	850,000	850,000	850,000					2,550,000
45	Robin Hood Park Improvements (80/20)					400,000			400,000
72	Snow Removal Equipment (90/5/5)			527,778					527,778
73	Terminal Apron Expansion (90/5/5)						185,250	3,230,000	3,415,250
43	Transportation Heritage Trail (80/20)	309,120		256,956	1,489,848	305,348			2,361,272
87/88	West Street Corridor Improvements Project (80/20)					628,220			628,220
58	W Keene Fire Station Project (80/20)					6,007,980			6,007,980
	TOTAL PROJECTS FUNDED WITH GRANTS	\$ 2,497,463	\$ 2,399,616	\$ 5,626,464	\$ 4,376,339	\$ 7,569,590	\$ 1,261,384	\$ 3,388,365	\$ 27,119,221
GRAND TOTAL - GENERAL FUND 2023-2029		\$ 8,150,875	\$ 8,387,114	\$ 17,720,375	\$ 14,595,742	\$ 19,666,853	\$ 9,161,021	\$ 10,107,124	\$ 87,789,104

2023-2029 New Cash Requirement

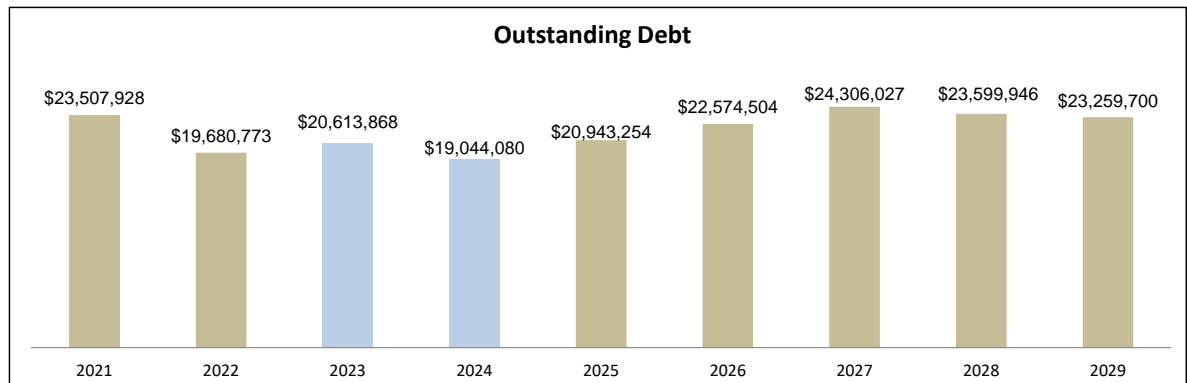
Uses of Cash	\$ 3,578,146	\$ 3,567,362	\$ 3,722,396	\$ 3,759,907	\$ 3,794,893	\$ 3,450,750	\$ 3,296,935	\$ 25,170,389
(Capital Reserve Appropriations plus Projects Funded with Current Revenues)								
Use of Retained Earnings/Project Balances	37,000	-	-	-	-	-	-	37,000
New Funds Needed	\$ 3,615,146	\$ 3,567,362	\$ 3,722,396	\$ 3,759,907	\$ 3,794,893	\$ 3,450,750	\$ 3,296,935	\$ 25,207,389

General Fund

2023 - 2029 CIP Debt Summary

	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Existing Debt	\$19,680,773	\$20,613,868	\$19,044,080	\$20,943,254	\$22,574,504	\$24,306,027	\$23,599,946
Authorized Not Issued	2,949,000	-	-	-	-	-	-
New Issues Proposed	1,278,000	1,508,000	4,997,000	4,806,000	4,818,000	2,321,000	2,760,000
Principal Paid	(3,293,905)	(3,077,788)	(3,097,826)	(3,174,750)	(3,086,477)	(3,027,082)	(3,100,246)
Total Existing Debt & Issues Proposed	\$20,613,868	\$19,044,080	\$20,943,254	\$22,574,504	\$24,306,027	\$23,599,946	\$23,259,700

	Issue	Term	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Existing & Authorized Debt Service (P & I)			\$3,888,835	\$3,479,734	\$3,289,862	\$2,906,049	\$2,352,645	\$1,870,564	\$1,690,008
Proposed Debt Service CIP FY23									
Municipal Building Roofs	541,000	10	8,791	70,803	69,045	67,287	65,529	63,770	62,012
Roadway Preservation & Rehabilitation	298,000	10	4,843	39,001	38,032	37,064	36,095	35,127	34,158
Salt Shed Replacement	439,000	10	7,134	57,454	56,027	54,601	53,174	51,747	50,320
Proposed Debt Service CIP FY24									
Roadway Preservation & Rehabilitation	520,000	10		8,450	68,055	66,365	64,675	62,985	61,295
Stormwater Resiliency	988,000	15		16,055	96,906	94,766	92,625	90,484	88,344
Proposed Debt Service CIP FY25									
City Hall Structural Repairs	1,386,000	15			22,523	135,944	132,941	129,938	126,935
Lower Winchester St Reconstruction	830,000	10			13,488	108,626	105,929	103,231	100,534
Roadway Preservation & Rehabilitation	488,000	10			7,930	63,867	62,281	60,695	59,109
Stormwater Resiliency	2,293,000	15			37,261	224,905	219,937	214,969	210,001
Proposed Debt Service CIP FY26									
Ashuelot River Dam Repair/Replace	802,000	15				13,033	78,663	76,925	75,188
Beaver Brook Flood Mitigation	504,000	15				8,190	49,434	48,342	47,250
Lower Winchester St Reconstruction	655,000	10				10,644	85,723	83,594	81,466
Roadway Preservation & Rehabilitation	1,417,000	10				23,026	185,450	180,845	176,239
Stormwater Resiliency	1,428,000	15				23,205	140,063	136,969	133,875
Proposed Debt Service CIP FY27									
Beaver Brook Flood Mitigation	504,000	15					8,190	49,434	48,342
Roadway Preservation & Rehabilitation	1,290,000	10					20,963	168,829	164,636
Robin Hood Park Improvements	1,113,000	15					18,086	109,167	106,755
Stormwater Resiliency	397,000	15					6,451	38,939	38,079
West Keene Fire Station	1,514,000	15					24,603	148,498	145,218
Proposed Debt Service CIP FY28									
Roadway Preservation & Rehabilitation	1,571,000	10						25,529	205,605
Stormwater Resiliency	750,000	15						12,188	73,563
Proposed Debt Service CIP FY29									
Roadway Preservation & Rehabilitation	1,525,000	10							24,781
Stormwater Resiliency	1,235,000	15							20,069
Total CIP 23-29 Debt Service Proposed			20,768	191,763	409,267	931,521	1,450,810	1,892,204	2,133,772
Total Projected Debt Service: General Fund			\$3,909,602	\$3,671,497	\$3,699,130	\$3,837,570	\$3,803,455	\$3,762,768	\$3,823,781



General Fund

Ambulance Capital Reserve

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

	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Ambulance Replacement			(285,000)			(310,000)	
Total Expenditures	\$0	\$0	(\$285,000)	\$0	\$0	(\$310,000)	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	90,000	90,000	100,000	110,000	110,000	110,000	110,000
Estimated Investment Earnings	145	280	3	168	334	34	199
Total Receipts	\$90,145	\$90,280	\$100,003	\$110,168	\$110,334	\$110,034	\$110,199
Estimated End of Year Reserve Balance	\$96,964	\$187,244	\$2,247	\$112,415	\$222,749	\$22,783	\$132,982

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Brush Truck	(55,000)						
Rescue Truck			(756,396)				
Engine						(760,000)	
Bucket Truck							(198,104)
Utility Truck	(60,000)						
Total Expenditures	<u>(\$115,000)</u>	<u>\$0</u>	<u>(\$756,396)</u>	<u>\$0</u>	<u>\$0</u>	<u>(\$760,000)</u>	<u>(\$198,104)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	350,000	350,000	375,000	375,000	375,000	375,000	400,000
Estimated Investment Earnings	390	915	345	908	1,472	896	1,200
Total Receipts	<u>\$350,390</u>	<u>\$350,915</u>	<u>\$375,345</u>	<u>\$375,908</u>	<u>\$376,472</u>	<u>\$375,896</u>	<u>\$401,200</u>
<u>Estimated End of Year Reserve Balance</u>							
	<u>\$260,286</u>	<u>\$611,201</u>	<u>\$230,150</u>	<u>\$606,058</u>	<u>\$982,530</u>	<u>\$598,426</u>	<u>\$801,522</u>

General Fund

Bridge Capital Reserve

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

	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Beaver Street over Beaver Brook				(34,456)	(4,594)	(190,659)	
George Street over Beaver Brook	(3,131)	(130,904)					
Total Expenditures	<u>(\$3,131)</u>	<u>(\$130,904)</u>	<u>\$0</u>	<u>(\$34,456)</u>	<u>(\$4,594)</u>	<u>(\$190,659)</u>	<u>\$0</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues							
George Street over Beaver Brook	19,476						
Church Street over Beaver Brook		127,670	127,670				
Maple Avenue over Black Brook	99,860						
Ferry Brook Road over Ferry Brook				105,210	105,210		
TBD						125,000	125,000
Subtotal Bridge Appropriations	<u>119,336</u>	<u>127,670</u>	<u>127,670</u>	<u>105,210</u>	<u>105,210</u>	<u>125,000</u>	<u>125,000</u>
Estimated Investment Earnings	828	825	1,018	1,125	1,278	1,181	1,371
Total Receipts	<u>\$120,164</u>	<u>\$128,495</u>	<u>\$128,688</u>	<u>\$106,335</u>	<u>\$106,488</u>	<u>\$126,181</u>	<u>\$126,371</u>
Estimated End of Year Reserve Balance	<u>\$553,142</u>	<u>\$550,733</u>	<u>\$679,421</u>	<u>\$751,300</u>	<u>\$853,194</u>	<u>\$788,716</u>	<u>\$915,087</u>

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Downtown Infrastructure			(500,000)	(500,000)	(500,000)		
Total Expenditures	\$0	\$0	(\$500,000)	(\$500,000)	(\$500,000)	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Wells Street TIF District	225,000	250,000	250,000	250,000	250,000	250,000	250,000
Estimated Investment Earnings	1,765	2,142	1,770	1,398	1,025	1,402	1,779
Total Receipts	\$226,765	\$252,142	\$251,770	\$251,398	\$251,025	\$251,402	\$251,779
<u>Estimated End of Year Reserve Balance</u>							
	\$1,178,165	\$1,430,307	\$1,182,077	\$933,475	\$684,500	\$935,902	\$1,187,681

General Fund

Emergency Communication Capital Reserve

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Police Portable Radios Program						(86,328)	(88,920)
Police Mobile Radio Replacement Program	(55,935)	(58,732)	(61,669)				
EXACOM Hindsight System					(41,300)		
Total Expenditures	(\$55,935)	(\$58,732)	(\$61,669)	\$0	(\$41,300)	(\$86,328)	(\$88,920)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Estimated Investment Earnings	7	9	7	97	125	86	42
Total Receipts	\$60,007	\$60,009	\$60,007	\$60,097	\$60,125	\$60,086	\$60,042
Estimated End of Year Reserve Balance	\$4,841	\$6,118	\$4,456	\$64,553	\$83,378	\$57,136	\$28,258

General Fund

Information Technology Systems and Infrastructure Capital Reserve

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Database Software		(24,000)		(25,000)		(24,000)	
Network Equipment Replacement		(18,000)	(50,200)	(37,800)	(112,800)	(73,500)	(8,000)
Server Replacement	(25,000)		(30,000)	(15,000)	(53,000)	(10,000)	
Storage Area Network				(189,400)			
Total Expenditures	(\$25,000)	(\$42,000)	(\$80,200)	(\$267,200)	(\$165,800)	(\$107,500)	(\$8,000)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	100,000	100,000	100,000	100,000	150,000	125,000	100,000
Estimated Investment Earnings	165	252	282	32	8	34	172
Total Receipts	\$100,165	\$100,252	\$100,282	\$100,032	\$150,008	\$125,034	\$100,172
Estimated End of Year Reserve Balance	\$109,892	\$168,144	\$188,226	\$21,058	\$5,266	\$22,800	\$114,972

General Fund

Parks and Facilities Infrastructure Capital Reserve (Proposed)

The purpose of the Parks and Facilities Infrastructure Capital Reserve is to fund, wholly or in part, upgrades, renovations, improvements, replacement, maintenance and the operation thereof of City facilities and Park components and apparatus, including but not limited to, buildings, building systems, roofs, paved areas, park equipment, play areas, and structures.

	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Paving Parking Lots Program				(350,000)	(126,676)	(359,400)	
Recreation Center Renovation		(285,000)	(1,181,250)				
Robin Hood Park Improvements	(35,000)				(2,350,000)		
Total Expenditures	<u>(\$35,000)</u>	<u>(\$285,000)</u>	<u>(\$1,181,250)</u>	<u>(\$350,000)</u>	<u>(\$2,476,676)</u>	<u>(\$359,400)</u>	<u>\$0</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	875,000	875,000	875,000	875,000	875,000	875,000	875,000
Estimated Investment Earnings	1,260	2,147	1,691	2,481	82	856	2,169
Total Receipts	<u>\$876,260</u>	<u>\$877,147</u>	<u>\$876,691</u>	<u>\$877,481</u>	<u>\$875,082</u>	<u>\$875,856</u>	<u>\$877,169</u>
Estimated End of Year Reserve Balance	<u>\$841,260</u>	<u>\$1,433,407</u>	<u>\$1,128,848</u>	<u>\$1,656,329</u>	<u>\$54,735</u>	<u>\$571,191</u>	<u>\$1,448,360</u>

General Fund

Reappraisal Capital Reserve

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Revaluation			(138,000)				
Total Expenditures	\$0	\$0	(\$138,000)	\$0	\$0	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	50,000	50,000	35,000	35,000	35,000	35,000	35,000
Estimated Investment Earnings	86	161	7	59	112	165	217
Total Receipts	\$50,086	\$50,161	\$35,007	\$35,059	\$35,112	\$35,165	\$35,217
Estimated End of Year Reserve Balance	\$57,445	\$107,606	\$4,613	\$39,672	\$74,784	\$109,949	\$145,166

General Fund

Road and Sidewalk Infrastructure Capital Reserve

The purpose of the Road and Sidewalk 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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Roadway Preservation & Rehabilitation			(40,000)				(45,000)
Sidewalk Asset Management	(272,400)	(290,600)	(297,000)	(291,840)	(261,000)	(279,000)	(286,800)
Total Expenditures	(\$272,400)	(\$290,600)	(\$337,000)	(\$291,840)	(\$261,000)	(\$279,000)	(\$331,800)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Estimated Investment Earnings	100	114	59	71	130	162	114
Total Receipts	\$300,100	\$300,114	\$300,059	\$300,071	\$300,130	\$300,162	\$300,114
Estimated End of Year Reserve Balance	\$66,888	\$76,402	\$39,461	\$47,692	\$86,822	\$107,984	\$76,298

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Open Space and Trails Program	(50,000)	(104,900)	(35,000)	(35,000)	(35,000)	(35,000)	(35,000)
Transportation Heritage Trail Program				(175,000)			
Marlboro St Corridor / Trail Connector	(203,800)						
Total Expenditures	(\$253,800)	(\$104,900)	(\$35,000)	(\$210,000)	(\$35,000)	(\$35,000)	(\$35,000)
<u>Proposed Revenues</u>							
Appropriation - MV Registration Surcharge (\$5)	90,000	90,000	90,000	90,000	90,000	90,000	90,000
Estimated Investment Earnings	122	100	183	3	86	168	251
Total Receipts	\$90,122	\$90,100	\$90,183	\$90,003	\$90,086	\$90,168	\$90,251
Estimated End of Year Reserve Balance	\$81,730	\$66,930	\$122,113	\$2,116	\$57,202	\$112,370	\$167,621

General Fund
2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL 2020/2021	ADOPTED BUDGET 2021/2022	PROJECTED 2022/2023	PROJECTED 2023/2024	PROJECTED 2024/2025	PROJECTED 2025/2026	PROJECTED 2026/2027	PROJECTED 2027/2028	PROJECTED 2028/2029
REVENUES									
Property Tax	\$27,308,757	\$26,484,245	\$27,172,835	\$27,960,848	\$28,967,439	\$29,739,904	\$30,483,401	\$31,245,487	\$32,026,624
Other Local Taxes	1,125,992	1,116,350	1,090,624	1,122,252	1,162,653	1,193,696	1,223,538	1,254,126	1,285,480
Tax Increment Financing	807,331	840,892	862,755	887,775	919,735	944,292	967,899	992,097	1,016,899
Licenses, Permits & Fees	4,159,133	3,857,572	3,957,869	4,022,647	4,142,462	4,228,066	4,308,768	4,366,487	4,400,649
Intergovernmental	3,063,989	3,215,862	3,248,021	3,280,501	3,346,111	3,379,572	3,413,368	3,447,501	3,481,976
Charges for Services	1,672,364	2,329,606	2,390,176	2,459,491	2,548,033	2,616,065	2,681,467	2,748,503	2,817,216
Fines & Forfeits	37,015	56,951	58,432	60,126	62,291	63,954	65,553	67,192	68,871
Miscellaneous	1,445,928	1,330,499	1,365,092	1,404,680	1,455,248	1,494,103	1,531,456	1,569,742	1,608,986
Other Financing Sources (including capital reserve)	2,686,517	4,842,600	3,151,679	3,089,924	5,552,303	3,831,284	5,662,158	4,305,675	2,839,612
Use of Surplus - Operating Budget	0	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000
Use of Surplus - Capital Projects	0	0	1,318,810	1,116,353	838,751	928,039	906,355	508,358	443,126
SUBTOTAL - current revenues	\$42,307,026	\$44,924,577	\$45,466,293	\$46,254,597	\$49,845,026	\$49,268,975	\$52,093,963	\$51,355,168	\$50,839,439
Sale of Bonds	2,679,000	2,949,000	1,278,000	1,508,000	4,997,000	4,806,000	4,818,000	2,321,000	2,760,000
TOTAL REVENUES	\$44,986,026	\$47,873,577	\$46,744,293	\$47,762,597	\$54,842,026	\$54,074,975	\$56,911,963	\$53,676,168	\$53,599,439

General Fund

2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL 2020/2021	ADOPTED BUDGET 2021/2022	PROJECTED 2022/2023	PROJECTED 2023/2024	PROJECTED 2024/2025	PROJECTED 2025/2026	PROJECTED 2026/2027	PROJECTED 2027/2028	PROJECTED 2028/2029
EXPENDITURES									
ELECTED/APPOINTED OFFICIALS:									
Mayor & City Council	\$136,984	\$142,723	\$146,291	\$149,948	\$153,697	\$157,539	\$161,478	\$163,100	\$167,178
City Manager	398,088	414,786	425,156	435,785	446,679	457,846	469,292	481,025	493,050
City Clerk & Elections	657,168	646,976	663,150	679,729	696,722	714,140	731,994	750,294	769,051
City Attorney	305,372	422,081	432,633	443,449	454,535	465,898	477,546	489,485	501,722
Outside Agencies	298,080	288,300	288,300	288,300	288,300	288,300	288,300	288,300	288,300
Unclassified	111,240	145,360	148,994	152,719	156,537	160,450	164,461	166,113	170,267
Employee Benefits	357,516	631,323	647,106	663,284	679,866	696,862	714,284	721,460	739,497
Risk Management	258,900	272,633	279,449	286,435	293,596	300,936	308,459	316,171	324,075
Total Elected/Appointed Officials	\$2,523,348	\$2,964,182	\$3,031,079	\$3,099,649	\$3,169,932	\$3,241,971	\$3,315,814	\$3,375,948	\$3,453,140
ADMINISTRATIVE SERVICES:									
Assessment	\$479,496	\$493,525	\$505,863	\$518,510	\$531,472	\$544,759	\$558,378	\$572,338	\$586,646
Finance	2,171,340	2,480,218	2,542,223	2,605,779	2,670,924	2,737,697	2,806,139	2,876,292	2,948,200
Human Resources	388,470	437,131	448,059	459,261	470,742	482,511	494,574	506,938	519,611
Information Technology	1,397,680	1,485,148	1,522,277	1,560,334	1,599,342	1,639,326	1,680,309	1,722,316	1,765,374
Total Administrative Services	\$4,436,986	\$4,896,022	\$5,018,422	\$5,143,884	\$5,272,480	\$5,404,293	\$5,539,400	\$5,677,884	\$5,819,831
COMMUNITY SERVICES:									
Fire & Ambulance	\$7,223,594	\$7,715,663	\$7,908,555	\$8,106,268	\$8,308,925	\$8,516,648	\$8,729,564	\$8,947,804	\$9,171,499
Library	1,400,697	1,626,577	1,667,241	1,708,922	1,751,646	1,795,437	1,840,323	1,886,330	1,933,489
Parks, Recreation & Facilities	3,529,130	3,927,343	4,025,527	4,126,165	4,229,319	4,335,052	4,443,428	4,554,514	4,668,377
Police	7,263,164	8,130,157	8,333,411	8,541,746	8,755,290	8,974,172	9,198,526	9,428,490	9,664,202
Total Community Services	\$19,416,585	\$21,399,740	\$21,934,734	\$22,483,101	\$23,045,180	\$23,621,309	\$24,211,841	\$24,817,138	\$25,437,567
MUNICIPAL DEVELOPMENT SERVICES:									
Airport	\$656,350	\$707,278	\$724,960	\$743,084	\$761,661	\$780,703	\$800,220	\$820,226	\$840,731
Community Development	1,427,694	1,522,033	1,560,085	1,599,085	1,639,063	1,680,040	1,722,041	1,765,092	1,809,219
Public Works	4,507,192	4,792,194	4,911,999	5,034,799	5,160,669	5,289,686	5,421,927	5,557,474	5,696,411
Total Mun. Development Services	\$6,591,236	\$7,021,505	\$7,197,044	\$7,376,968	\$7,561,393	\$7,750,429	\$7,944,188	\$8,142,792	\$8,346,361
CAPITAL PROGRAM:									
Debt Service (including repayment of interfund loan)	4,170,900	4,539,979	3,909,602	3,671,497	3,699,130	3,837,570	3,803,455	3,762,768	3,823,781
Capital Projects (not funded by debt)	3,401,777	4,103,149	4,375,412	4,479,498	7,096,911	5,413,403	7,279,263	5,578,637	3,958,759
Total Capital	\$7,572,677	\$8,643,128	\$8,285,014	\$8,150,995	\$10,796,041	\$9,250,973	\$11,082,718	\$9,341,405	\$7,782,540
SUBTOTAL - current expenditures	\$40,540,832	\$44,924,577	\$45,466,293	\$46,254,597	\$49,845,026	\$49,268,975	\$52,093,963	\$51,355,168	\$50,839,439
CAPITAL PROJECTS (funded by Debt)	2,679,000	2,949,000	1,278,000	1,508,000	4,997,000	4,806,000	4,818,000	2,321,000	2,760,000
TOTAL EXPENDITURES	\$43,219,832	\$47,873,577	\$46,744,293	\$47,762,597	\$54,842,026	\$54,074,975	\$56,911,963	\$53,676,168	\$53,599,439

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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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2023 - 2029 Capital Project Funding Request

Community Development



GENERAL PROJECT DATA

Project/Program: Comprehensive Master Plan Update

Project Number: TBD

Physical Location: City-Wide

Type: Recurring Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: RSA 674:1-5

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Collaborative Community Planning

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/PROGRAM 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, ranging from "Community Sustainability" to "Economic Development", "Community Health & Wellness" to "Climate Change". It is now 11 years later and many aspects of our economic, environmental, and social context have changed. It is time to revisit and update the CMP.

This update will begin with a renewal of Keene's Community Vision. While public involvement and input will be a critical component of this phase, focus will be on neighborhood engagement and strategic visioning around the future of Keene's downtown and growth areas/nodes. As the City faces a number of questions related to future development, particularly around the area of housing, this planning effort will integrate a housing needs assessment, as well as an update of Keene's socioeconomic and demographic information through the use of current data and trend analysis. Additional assessments or studies may be needed to support the development of targeted implementation strategies.

This update will examine the current content of the CMP, and will update sections to reflect current community priorities. Throughout all phases of this planning process, citizens and community partners will be asked to join with the City to identify priorities and inform the development of an actionable implementation section. This project is anticipated to take place over a period of two years. Funding will support professional services and materials to organize and facilitate public engagement activities, collecting and analyzing current demographic and socioeconomic data and historical trends, conducting a housing needs assessment, the development of updated plan language, and the reorganization and graphic layout of a revised document.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		50,000	40,000					90,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$50,000	\$40,000	\$0	\$0	\$0	\$0	\$90,000

FINANCIAL PLAN

FUNDING								
Current Revenue		50,000	40,000					90,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$50,000	\$40,000	\$0	\$0	\$0	\$0	\$90,000

2023 - 2029 Capital Project Funding Request Community Development



GENERAL PROJECT DATA

Project/Program: 10 Year Digital Base Map Update

Project Number: 90214 / 30J0002
 Physical Location: City-Wide
 Type: Recurring Project
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Infrastructure; Emergency Preparedness; Future Land Use and Public Policy; Maintaining Neighborhoods

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/PROGRAM 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, above ground utilities, water bodies and other natural and man-made features. Lidar can also be collected during this project which will help move forward the development of a 3D model or "Digital Twin" of the City. Interim imagery and select features were 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. Collection of City managed areas outside of City boundaries such as Babbidge Reservoir and Preserve in Roxbury as well as the City's Airport and Wastewater Treatment Facility in Swanzev should be considered for future mapping projects. The timing of this project also has specific bearing on the Assessing Revaluation CIP, the data collected here in is utilized by Assessing to conduct preliminary observations for their project.

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 construction, development, real estate, economic development initiatives. Keene's GIS helps the general public's ability to access City data and information and in summary supports many of the facets of how Keene does business and its regular organizational functions. This CIP project will continue the City's seven-decade history of completing timely updates to its aerial imagery. In order to offset costs, staff have been monitoring statewide options to collect data and have been working with vendors to understand where cost savings can be identified in the project components.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			150,000					150,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$150,000

FINANCIAL PLAN

FUNDING								
Current Revenue			150,000					150,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$150,000

**FIRE & EMERGENCY MEDICAL SERVICE APPARATUS SCHEDULES
2023 - 2029 Capital Improvement Program**

AMBULANCE REPLACEMENT SCHEDULE

Vehicle #	Description	Year	Use	Project Page #	Capital Reserve Page #	FY23	FY24	FY25	FY26	FY27	FY28	FY29
19A1	Ambulance	2016	EMS	33	16			285,000				
19A3	Ambulance	2019	EMS	33	16						310,000	
			TOTAL			\$0	\$0	\$285,000	\$0	\$0	\$310,000	\$0

FIRE APPARATUS REPLACEMENT SCHEDULE

Vehicle #	Description	Year	Use	Project Page #	Capital Reserve Page #	FY23	FY24	FY25	FY26	FY27	FY28	FY29
19B2	Brush Truck	2003	Fire	34	17	55,000						
19U4	FA Bucket Truck	2015	Fire	34	17							198,104
19U1	Utility	2006	Fire	34	17	60,000						
19R1	Rescue	2010	Fire	34	17			756,396				
19E2	Engine	2013	Fire	34	17						760,000	
			TOTAL			\$115,000		\$756,396	\$0	\$0	\$760,000	\$198,104

2023 - 2029 Capital Project Funding Request Fire



GENERAL PROJECT DATA

Project/Program: Ambulance Replacement Program

Project Number: 90000 / 40M0002
 Physical Location: 31 Vernon Street
 Type: Ongoing Program
Capital Reserve (Wholly or in Part): Ambulance -page 16
 Federal / State Regulation or Law: Federal KKK-A-1822, NFPA 1917and NH State Licensing and DOT Inspections
 Master Plan (CMP) Focus Area: Healthy Community
 CMP Vision/Strategy: Emergency Preparedness

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



PROJECT/PROGRAM 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 ambulances are on a 9 year replacement schedule.

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 19A1 in FY25 and 19A3 in FY28.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition			285,000			310,000		595,000
Other								0
TOTAL	\$0	\$0	\$285,000	\$0	\$0	\$310,000	\$0	\$595,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			285,000			310,000		595,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$285,000	\$0	\$0	\$310,000	\$0	\$595,000

2023 - 2029 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project/Program: Apparatus Replacement Program

Project Number: 90003 / 40M0004

Physical Location: 31 Vernon Street

Type: Ongoing Program

Capital Reserve (Wholly or in Part): Fire Apparatus Replacement - page 17

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

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

Departmental Objective: Ensure Safety and Reliability to Staff and Community



PROJECT/PROGRAM 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. The FY23 purchases include replacement of our utility truck that is used for service calls, hauling of or Technical Rescue and Hazardous Material Response Trailers and hauling of other general equipment to and from incidents. The second project is the refurbishment of Brush 2. A new rear body and brush guards and upgrades to suspension, tires, water pump plumbing, and lighting will be completed. The existing chassis and "skid unit" that includes the pump and water tank will be re-used.

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 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition	115,000		756,396			760,000	198,104	1,829,500
Other								0
TOTAL	\$115,000	\$0	\$756,396	\$0	\$0	\$760,000	\$198,104	\$1,829,500

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	115,000		756,396			760,000	198,104	1,829,500
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$115,000	\$0	\$756,396	\$0	\$0	\$760,000	\$198,104	\$1,829,500

2023 - 2029 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project/Program: SCBA Fill Station Project

Project Number: TBD

Physical Location: 31 Vernon Street; 110 Hastings Avenue

Type: Multiphase Project

Capital Reserve (Wholly or In Part): N/A

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

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

Departmental Objective: Emergency preparedness and personnel safety



PROJECT/PROGRAM 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 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 and FY32. Each unit requires annual maintenance and testing of the air quality.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition					60,000			60,000
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$60,000	\$0	\$0	\$60,000

FINANCIAL PLAN

FUNDING								
Current Revenue					60,000			60,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$60,000	\$0	\$0	\$60,000

2023 - 2029 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project/Program: Hydraulic Rescue Tools Project

Project Number: TBD

Physical Location: 31 Vernon Street

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Maintaining a Safe Community

Departmental Objective: Ensure safety and reliability to staff and community



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The department currently has one brand (HURST) of hydraulic and electric rescue tools used for vehicle extrication, building collapse and machinery incidents. More than 80% of the current equipment is 15 years old. In the last year due to failure a couple of the individual tools they were replaced. This project and purchase 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 years.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition					60,000			60,000
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$60,000	\$0	\$0	\$60,000

FINANCIAL PLAN

FUNDING								
Current Revenue					60,000			60,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$60,000	\$0	\$0	\$60,000

2023 - 2029 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project/Program: EMS Non-disposable Equipment Program

Project Number: TBD

Physical Location: 31 Vernon Street

Type: New Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Maintaining a Safe Community

Departmental Objective: Ensure safety and reliability to staff and community



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The department has several advanced life support types of non-disposable equipment that have been purchased over the years through CIP funds, operating budget funds and grant funding. Replacement of this equipment less being awarded grants would not be possible with current operating budget. To plan for the future replacement of this specialized equipment we recommend an on-going project for such items so that funds are available on a projected replacement life cycle for the units.

1. Automatic External Defibrillators (AED)'s – This project would replace 11 units with an estimated cost \$1,700 per unit (11- \$18,700). Life span 10 years current units are over 10 years old. Recommend replacement FY24.
2. Ambulance Power Cots- Current cots range from 3-9 years old, three units are in service at a estimated replacement cost of \$21,000 each. Recommend replacement program in sequence with new ambulance purchase schedule starting in FY25 and the next in FY28.
3. 12 Lead Defibrillators- Our 4 units are used as an advanced life support tool. Estimated cost \$38,000 life span 7-10 years, (4- \$152,000). Current units purchased in FY16 and FY17. Recommended replaced FY26 and FY27.
4. Ventilators- are carried on our three ambulances and used as an advanced life support tool while treating respiratory and cardiac calls. Current units were purchased via grant in FY21 for \$40,500 (3- \$13,500). Life span is projected to be 7 years with annual maintenance and calibration required. Recommend for replacement in FY28.
5. IV Pumps- Our IV pump units (6) are carried on the three ambulances and used to administer specific cardiac medications. The units are used regularly and provide another tool in the level of advanced cardiac life support we can provide our customers. The current units were purchased in FY21. Estimated replacement cost for \$13,200 (6- \$2,200) with a life span of 7-8 years. Recommended replacement would be FY29 for all units.
6. McGrath Airway Device- This unit also referred to as a "video scope" is used during advanced airway management. Current units (3) were purchased in FY17 with a life span of 6-8 years. Estimate replacement cost of \$2,500 per unit, total \$7,500. Recommend replacement in FY29.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition		18,700	21,000	76,000	76,000	40,500	20,700	252,900
Other								0
TOTAL	\$0	\$18,700	\$21,000	\$76,000	\$76,000	\$40,500	\$20,700	\$252,900

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue		18,700	21,000	76,000	76,000	40,500	20,700	252,900
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$18,700	\$21,000	\$76,000	\$76,000	\$40,500	\$20,700	\$252,900

2023 - 2029 Capital Project Funding Request

Fire



GENERAL PROJECT DATA

Project/Program: Gear Washer/Extractor & Drying System

Project Number: TBD

Physical Location: 31 Vernon Street, 110 Hastings Avenue

Type: New Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Maintaining a Safe Community

Departmental Objective: Ensure safety and reliability to staff and community



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The protective clothing washer/extractor is used to maintain all protective clothing used for firefighting. The special washer/extractors are industrial grade and used to remove carcinogens and other products from the non-disposable protective clothing worn. The dryer system allows placement of six sets of protective clothing on an open-air system that pushes air through the gear to dry it from inside. Both stations have washer/extractors and the Central station currently has the dryer system. The system at the Central station was obtained via a grant in 2012. The washer system at station 2 was moved from the Central station as a used unit and is 20 years old. The life span of the units is estimated at 15-20 years. We would like to purchase washer and dryer systems for station 2 in FY24 at an estimated cost of \$25,000 and replace the Central Station system in FY28 at an estimated cost of \$30,000.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition		25,000				30,000		55,000
Other								0
TOTAL	\$0	\$25,000	\$0	\$0	\$0	\$30,000	\$0	\$55,000

FINANCIAL PLAN

FUNDING								
Current Revenue		25,000				30,000		55,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$25,000	\$0	\$0	\$0	\$30,000	\$0	\$55,000

MUNICIPAL PARKS MAINTENANCE PROGRAM

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:

Year	Location	Scope of Work	Estimated Cost	Total Cost for Fiscal Year
2023	Wheelock Park	Tennis Court Resurfacing	\$15,000	\$75,000
	Water Street	Basketball Court Resurfacing	\$20,000	
	Wheelock Park	Pool Restroom Improvements	\$40,000	
2024	Wheelock Park	Replace Playground Structure	\$65,000	\$75,000
	Wheelock Park	Playground Restrooms and Water Fountain	\$10,000	
2025	Wheelock Park	Pool Resurfacing	\$50,000	\$75,000
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 Park	Hockey Rink Improvements	\$15,000	\$75,000
		Replace Playground Structure	\$60,000	

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Municipal Parks Maintenance Program

Project Number: 90318 / 65M0006
 Physical Location: Various
 Type: Ongoing Program
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

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

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The park 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 FY23-24 CIP, a conceptual design for Robin Hood Park which will help provide direction for the future use of the swimming pool and tennis courts through public input, in addition, the playground building structure needs upgrading in the immediate future, this design process will help shape the future of Robin Hood and the Capital Improvement Plan schedule. Other projects during this time will be to resurfacing the basketball courts on Water Street, and the bathrooms at Wheelock Pool.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	75,000	75,000	75,000	75,000	75,000	75,000	75,000	525,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$525,000

FINANCIAL PLAN

FUNDING								
Current Revenue	75,000	75,000	75,000	75,000	75,000	75,000	75,000	525,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$525,000

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Open Space and Trails Program

Project Number: TBD

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Transportation Improvement - page 25

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Trails & Bike Pathways

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



PROJECT/PROGRAM 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
 - 2028 – Trail Improvements in Greater Goose Pond Forest & rail trail clearing
 - 2029 – Trail Head Maintenance & Kiosk Refurbishment
- Since 2010, the City has made a cumulative investment of \$2,582,990.51

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	50,000	104,900	35,000	35,000	35,000	35,000	35,000	329,900
Property/Equip. Acquisition								0
Other								0
TOTAL	\$50,000	\$104,900	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$329,900

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	50,000	104,900	35,000	35,000	35,000	35,000	35,000	329,900
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$50,000	\$104,900	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$329,900

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Ashuelot River Dam Repair or Removal Project

Project Number: TBD

Physical Location: West St. / Ashuelot River Park

Type: Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM 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. It could damage private property and roads and have environmental or economic impacts. The problems at the dam include erosion, steep slopes, 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 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 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. Repair requires extensive work along the upstream levee, which is approximately 1/3 of a mile long. We expect that repair will also trigger a requirement to provide fish passage across the dam. Repair is expected to be more costly than removal. Repair costs are carried below.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design		172,910						172,910
Construction / Implementation				795,390				795,390
Property/Equip. Acquisition								0
Other - Debt Issuance				6,610				6,610
TOTAL	\$0	\$172,910	\$0	\$802,000	\$0	\$0	\$0	\$974,910

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue		172,910						172,910
Capital Reserve								0
Debt Funded				802,000				802,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$172,910	\$0	\$802,000	\$0	\$0	\$0	\$974,910

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program:	Transportation Heritage Trail Program
Project Number:	90319 / 65M0008
Physical Location:	Cheshire Rail Trail
Type:	Ongoing Program
Capital Reserve (Wholly or In Part):	Transportation Improvement - page 25
Federal / State Regulation or Law:	N/A
Master Plan (CMP) Focus Area:	Healthy Community
CMP Vision/Strategy:	Trails & Bike Pathways
Departmental Objective:	Master Plan Recommendation #12 Improve level of service in parks, facilities, trails, and open spaces



PROJECT/PROGRAM 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. The City was recently notified that we were recommended for a "Congressionally Directed Spending" project for the first phase. If ultimately approved through the federal appropriations process, this would allow us to begin construction in 2023. This Phase will entail repairing the rail bed from Eastern Avenue to Rt. 101 and preparing the embankment on the north side of Rt. 101 for the Prowse Bridge. In 2025, we will construct a small roadside trailhead off of Swanzey Factory Road and install safety railings on the Stone Arch Bridge. In 2026, the historic Prowse Bridge will be relocated from temporary storage in Londonderry to its new home in Keene. In 2027, the project will be completed by installing abutments at Swanzey Factory Road and constructing a new bridge using components of the Island Street Bridge. This phase will also extend the trail to Joslin Station Road and the Swanzey Town Line. The schedule outlined above will be contingent upon the availability of grant funds and private donations.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	50,400		41,895	242,910	49,785			384,990
Construction / Implementation	336,000		279,300	1,619,400	331,900			2,566,600
Property/Equip. Acquisition								0
Other								0
TOTAL	\$386,400	\$0	\$321,195	\$1,862,310	\$381,685	\$0	\$0	\$2,951,590

FINANCIAL PLAN

FUNDING								
Current Revenue	77,280		64,239	197,462	76,337			415,318
Capital Reserve				175,000				175,000
Debt Funded								0
Federal / State Grants	309,120		256,956	1,489,848	305,348			2,361,272
Other Sources								0
TOTAL	\$386,400	\$0	\$321,195	\$1,862,310	\$381,685	\$0	\$0	\$2,951,590

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Marlboro Street Corridor Improvements / Trail Connector

Project Number: TBD

Physical Location: Marlboro Street / Cheshire Rail Trail

Type: New One-Time Project

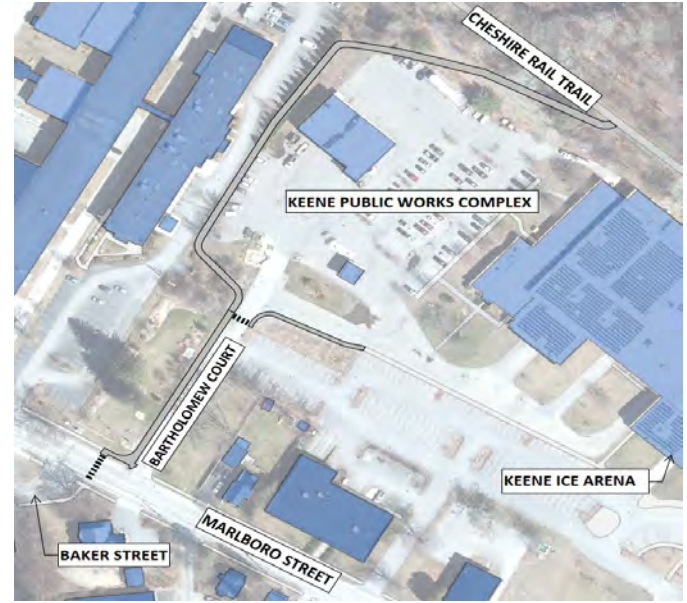
Capital Reserve (Wholly or In Part): Transportation Improvement - page 25

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Trails & Bike Pathways

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

In 2019 the City was selected for a NHDOT Transportation Alternatives Program (TAP) grant to build complete street and safety improvements along Marlboro Street. The original project scope included crosswalk improvements, painted bike lanes, and a formal connection to the Cheshire Rail Trail.

The project design was funded previously and is in progress. At the recommendation of the NHDOT, the City expanded the original scope to include extra safety measures, including flashing crosswalk beacons, signage, expanded sidewalk reconstruction, and lighting. The project will also include asphalt overlay of Marlboro Street between Main Street and Eastern Avenue.

The amount requested will cover the costs to complete the right-of-way layout and the City's 20% match for the expanded construction scope. The unspent balance from the previously-approved design funds will cover a portion of the costs.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	1,104,000							1,104,000
Property/Equip. Acquisition	20,000							20,000
Other								0
TOTAL	\$1,124,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,124,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	203,800							203,800
Debt Funded								0
Federal / State Grants	883,200							883,200
Other Sources - Project Balance	37,000							37,000
TOTAL	\$1,124,000	\$0	\$0	\$0	\$0	\$0	\$0	\$1,124,000

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Robin Hood Park Improvement Project

Project Number: TBD

Physical Location: Robin Hood Park

Type: Multiphase Project

Capital Reserve (Wholly or In Part): Parks & Facilities Infrastructure - page 22

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Healthy Living

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

Robin Hood Park serves as a neighborhood park to the east side, but on a larger scale it serves the City as a natural playground filled with trails, glacier boulders, diverse natural features, and unique views across the City. The infrastructure of the Park has aged significantly. This, together with climate change, has impacted the Park maintenance operations. Heavy rainfalls and warmer winters have caused the natural park features to erode and become unmanageable for the public to enjoy. In 2014 and 2015, the City completed concept plans for Wheelock Park and the Patricia T Russell Park to shape their futures for the next decades to come. The same direction—using the guidelines of the Active and Passive Recreation Management Plan— will be followed for Robin Hood Park. One major concern is that the pool was built right on the banks of a reservoir and reached its useful life. The project will include the future of the pool that is scheduled for design and construction in 2027. In addition, the playground building needs to be replaced as it no longer meets programming needs, and due to the topography and water flow, the location of the tennis courts needs to be reconsidered to address ongoing maintenance issues. This project will allow the community to share their ideas and concepts for the future of Robin Hood Park. Engaging the community in the concept and design phase will strengthen the connection between the neighborhood and Park while at the same time promote sustainability and climate resiliency best practices.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	35,000				350,000			385,000
Construction / Implementation					3,510,400			3,510,400
Property/Equip. Acquisition								0
Other - Debt Issuance					2,600			2,600
TOTAL	\$35,000	\$0	\$0	\$0	\$3,863,000	\$0	\$0	\$3,898,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	35,000				2,350,000			2,385,000
Debt Funded					1,113,000			1,113,000
Federal / State Grants					400,000			400,000
Other Sources								0
TOTAL	\$35,000	\$0	\$0	\$0	\$3,863,000	\$0	\$0	\$3,898,000

2023 - 2029 Capital Project Funding Request Police



GENERAL PROJECT DATA

Project/Program: Portable Radios Program

Project Number: 90123 / 70M0002
 Physical Location: 400 Marlboro Street
 Type: Ongoing Program
Capital Reserve (Wholly or In Part): Emergency Communication - page 20

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership
 CMP Vision/Strategy: Emergency Preparedness

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/PROGRAM DESCRIPTION & JUSTIFICATION

The department currently operates and maintains fifty five (55) portable radios. In CY 2019 we reexamined our need for total portable radios and opted to move from 63 to 55, but still meeting our operational and safety needs. This created a savings of \$40,303.82 in FY 21, the last year of that three year replacement. This replacement program will allow us to maintain emergency preparedness and personnel safety by having portable radio units that are reliable and serviceable for the next eight to ten years. 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. 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition						\$86,328	\$88,920	\$175,248
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$86,328	\$88,920	\$175,248

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve						\$86,328	\$88,920	\$175,248
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$86,328	\$88,920	\$175,248

2023 - 2029 Capital Project Funding Request

Police



GENERAL PROJECT DATA

Project/Program: Mobile Radio Replacement Program

Project Number: TBD

Physical Location: 400 Marlboro Street

Type: Ongoing Program

Capital Reserve (Wholly or in Part): Emergency Communication - page 20

Federal / State Regulation or Law: N/A

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

CMP Vision/Strategy: Emergency Preparedness

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/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition	55,935	58,732	61,669					176,336
Other								0
TOTAL	\$55,935	\$58,732	\$61,669	\$0	\$0	\$0	\$0	\$176,336

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	55,935	58,732	61,669					176,336
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$55,935	\$58,732	\$61,669	\$0	\$0	\$0	\$0	\$176,336

2023 - 2029 Capital Project Funding Request Police



GENERAL PROJECT DATA

Project/Program: EXACOM Hindsight System Replacement/Refresh Project

Project Number: TBD

Physical Location: 400 Marlboro Street

Type: One-time Project

Capital Reserve (Wholly or In Part): Emergency Communication - page 20

Federal / State Regulation or Law: N/A

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

CMP Vision/Strategy: Emergency Preparedness

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



PROJECT/PROGRAM 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 supported 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition					41,300			41,300
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$41,300	\$0	\$0	\$41,300

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve					41,300			41,300
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$41,300	\$0	\$0	\$41,300

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	
• Revaluation Program	50
Facilities	
• Municipal Building Capital Maintenance Program	51-52
• Municipal Building Roofs Program	53
• Paving Parking Lots Program	54
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Information Technology	
• Database Software Upgrade Program	59
• Network Equipment Replacement Program	60-61
• Server Replacement Program	62-63
• Storage Area Network Project	64
• Phone System Replacement Project	65

2023 - 2029 Capital Project Funding Request

Assessing



GENERAL PROJECT DATA

Project/Program: Revaluation Program

Project Number: 90098 / 10M0002

Physical Location: City-Wide

Type: Ongoing Program

Capital Reserve (Wholly or in Part): Reappraisal - page 23

Federal / State Regulation or Law: RSA 75:8-a

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Municipal Governance & Financial Stability

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



PROJECT/PROGRAM 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 2021 which means that it will be required again in 2026. The project will begin in 2025 and will be completed by the fall of 2026. The new assessments will be used to determine the final 2026 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction /			138,000					138,000
Property/Equip.								0
Other								0
TOTAL	\$0	\$0	\$138,000	\$0	\$0	\$0	\$0	\$138,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			138,000					138,000
Debt Funded								0
Federal / State								
Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$138,000	\$0	\$0	\$0	\$0	\$138,000

MUNICIPAL BUILDING CAPITAL MAINTENANCE PROGRAM

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
2023	Public Works building	Replace EPDM roof over Admin	\$76,000	\$175,000
	W Keene Fire Station	Assessment of infrastructure and prioritization of critical needs	\$75,000	
		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	Public Works building	Replace rooftop HVAC	\$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	

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Municipal Building Capital Maintenance Program

Project Number: 90280 / 65M0004

Physical Location: Administration

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: Some

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Community Sustainability

Departmental Objective: Maintain safe buildings



PROJECT/PROGRAM 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 2023, the priority will be the replacement of the roof over the Administration wing of the Public Works Department, and the prioritization of critical needs to provide needed improvements to the West Keene Fire Station.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	175,000	100,000	100,000	100,000	100,000	100,000	100,000	775,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$175,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$775,000

FINANCIAL PLAN

FUNDING								
Current Revenue	175,000	100,000	100,000	100,000	100,000	100,000	100,000	775,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$175,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$775,000

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Municipal Building Roofs Program

Project Number: TBD

Physical Location: Administration

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: Some

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Community Sustainability

Departmental Objective: Maintain safe buildings



PROJECT/PROGRAM 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 needing 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 will also increase the insulation level to current standards for better efficiency.

FY23 Keene Police Station roof (400 Marlboro Street) was replaced in 1998 (\$495,552); Recreation Center Gym roof, new in 1987 (\$40,800);
 FY24 DPW garage roof was last replaced in 1995 (\$100,782); Recreation Center multiple shingled roof areas above classrooms (\$38,000);
 FY25 City Hall 4th floor roof, estimated installation date was 1988;
 FY26 Recreation Center multiple roofing areas of varying ages from 1990-1994; Multipurpose room, storage room;
 FY27 Airport Terminal building installed 1993;
 FY28 Keene Public Library installed 1990;
 FY29 Transportation Center

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	536,322	138,782	95,639	128,700	105,256	147,500	57,000	1,209,199
Property/Equip. Acquisition								0
Other - Debt Issuance	4,678							4,678
TOTAL	\$541,000	\$138,782	\$95,639	\$128,700	\$105,256	\$147,500	\$57,000	\$1,213,877

FINANCIAL PLAN

FUNDING								
Current Revenue		138,782	95,639	128,700	105,256	147,500	57,000	672,877
Capital Reserve								0
Debt Funded	541,000							541,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$541,000	\$138,782	\$95,639	\$128,700	\$105,256	\$147,500	\$57,000	\$1,213,877

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Paving Parking Lots Program

Project Number: TBD

Physical Location: Multiple

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Parks & Facilities Infrastructure - page 22

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain function of parking at facilities



PROJECT/PROGRAM 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-stripping. 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.

Rehabilitation of the Airport Terminal parking lot is scheduled for FY28.

Additional lots will be scheduled for future years.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation				350,000	126,676	359,400		836,076
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$0	\$350,000	\$126,676	\$359,400	\$0	\$836,076

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve				350,000	126,676	359,400		836,076
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$350,000	\$126,676	\$359,400	\$0	\$836,076

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program:	Recreation Center Renovation Project
Project Number:	TBD
Physical Location:	312 Washington Street
Type:	Multiphase Project
Capital Reserve (Wholly or In Part):	Parks & Facilities Infrastructure - page 22
Federal / State Regulation or Law:	N/A
Master Plan (CMP) Focus Area:	Healthy Community
CMP Vision/Strategy:	Healthy Living
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/PROGRAM 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 and preventing the floor from properly adhering.

The multipurpose room serves as a true community space, hosting programs from square dancing, archery, Tae Kwon Do, 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.

FY 24 Upgrading the ventilation system in the multipurpose room and main office area to meet current standards based on energy conservation and allowing for better ventilation and air quality. CDC recommends a layered approach to reduce exposures to SARS-CoV-2, the virus that causes COVID-19. This approach includes using multiple mitigation strategies, including improvements to building ventilation, to reduce the spread of disease and lower the risk of exposure. This would align with boiler replacement and would allow for a much better design.

FY 25 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 ability to heat the multipurpose room in the colder months is difficult at best, as the walls have no insulation, windows are in poor condition, and the flooring needs proper installation. The City promotes green energy and conservation and the opportunity to provide a model for energy efficiencies and create a more sustainable facility can be addressed through the renovation. This facility is also a Red Cross emergency shelter.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design		10,000	181,250					191,250
Construction / Implementation		275,000	1,000,000					1,275,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$285,000	\$1,181,250	\$0	\$0	\$0	\$0	\$1,466,250

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve		285,000	1,181,250					1,466,250
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$285,000	\$1,181,250	\$0	\$0	\$0	\$0	\$1,466,250

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: Parks and Cemetery Operations Building

Project Number: TBD

Physical Location: 521 Park Ave - Monadnock View Cemetery

Type: New One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Infrastructure

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

In 1984 the Parks and Cemetery divisions moved together into a new mason block building in Monadnock View Cemetery with the goal of combining the operations of Woodland Cemetery and Wheelock Park. The 4,800 square foot building has served its purpose well with regards to location and functionality. It has survived consistent but minimal maintenance over the years, with the only notable projects being the replacement of a new window and new heating units. The proposed project will include painting both interior and exterior walls, upgrading the bathrooms to include one ADA unit, installation of new garage doors, the addition of expansion bays on the back of the building to keep equipment covered and able to withstand New Hampshire weather, upgrading the lighting systems to LED, hot water tank replacement, an upgrade to the employee room, and sealing of the concrete floors. This building is well-used and is thus subject to a lot of wear and tear. In an effort to prevent complete replacement of the building, attention to the aforementioned maintenance is necessary. Additionally, notable repairs and upgrades will improve the building envelope for a more energy efficient building and providing an impact to the operating budget.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			180,000					180,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$180,000	\$0	\$0	\$0	\$0	\$180,000

FINANCIAL PLAN

FUNDING								
Current Revenue			180,000					180,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$180,000	\$0	\$0	\$0	\$0	\$180,000

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: City Hall Structural Repairs

Project Number: 90173 / 65J0002
 Physical Location: 3 Washington Street
 Type: Multiphase Project
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

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

Departmental Objective: Maintain safe buildings



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

In 2017 the Facilities department contracted with Engineering Ventures to investigate the cause of cracking at the rear of City Hall. During this investigation several other areas were identified as needing to be addressed. It was determined that the proper way to proceed would require investigating the "Town Brook," which flows under City Hall.

With City Council approval, the Facilities department and Public Works engineering department proceeded with an investigation, utilizing Dubois and King as a consultant to develop a solution.

This investigation and a plan to remedy the issues are ongoing; however, we anticipate a working plan to be available later this fiscal year. At this time, costs associated with repairs are estimates based on verbal discussions in 2017. Actual costs will be presented to Council prior to moving forward with any repairs.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			125,000					125,000
Construction / Implementation			1,250,000					1,250,000
Property/Equip. Acquisition								0
Other - Debt Issuance			11,000					11,000
TOTAL	\$0	\$0	\$1,386,000	\$0	\$0	\$0	\$0	\$1,386,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded			1,386,000					1,386,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$1,386,000	\$0	\$0	\$0	\$0	\$1,386,000

2023 - 2029 Capital Project Funding Request Parks, Recreation & Facilities



GENERAL PROJECT DATA

Project/Program: W Keene Fire Station Project

Project Number: 90312 / 65J0010

Physical Location: 110 Hastings Ave

Type: Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Healthy Community

CMP Vision/Strategy: Emergency Preparedness

Departmental Objective: Provide emergency response



PROJECT/PROGRAM 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. In 2019 the Facilities Director and Fire Chief under the direction of the City Manager and in collaboration with members from the department, other city staff members and City Council members started a two phase review of the current station to determine the future needs. Phase I review consisted of a geographic review of the current station and the district (area) that station 2 is primary Fire and EMS response for. The review looked at several years of responses and response times in the district. The review also included a review of high hazard occupancies served, residential and commercial growth and the impacts of response times to those areas based on current station location and four other selected locations in west Keene. The report was presented to the FOP Committee and City Council recommending the current location of the fire station as the location. This report was accepted and location approved on February 20, 2020 by the full City Council. Phase II involved selection and retaining a firm to review the current building and systems, the space and programming needs and conceptual design and estimated cost on the proposed project. Phase II work again was completed under the direction of the City Manager in collaboration with department members, City Council members, Facilities Director and Fire Chief. The review and reported concluded a recommendation the building of a new station rather than the renovation of the current building. The programming assessment also lowered the current building size of approximately 20,500 square feet to a need of approximately 14,800 square feet needed for the new facility. This report was presented to both FOP and the City Council on its completion with a recommendation that it be accepted as informational so that further CIP planning could continue. On September 2, 2021 the City Council approved this recommendation. The next phase towards developing the West Keene Fire Station will be to complete an architectural schematic design and seek federal grants that could fund 80% of the construction.

The construction phase (FY27) of this project is a placeholder contingent upon grant funding.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	175,000							175,000
Construction / Implementation					7,509,975			7,509,975
Property/Equip. Acquisition								0
Other - Debt Issuance					12,005			12,005
TOTAL	\$175,000	\$0	\$0	\$0	\$7,521,980	\$0	\$0	\$7,696,980

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue	175,000							175,000
Capital Reserve								0
Debt Funded					1,514,000			1,514,000
Federal / State Grants					6,007,980			6,007,980
Other Sources								0
TOTAL	\$175,000	\$0	\$0	\$0	\$7,521,980	\$0	\$0	\$7,696,980

2023 - 2029 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project/Program: Database Software Upgrade Program

Project Number: TBD

Physical Location: IT Data Center

Type: Ongoing Program

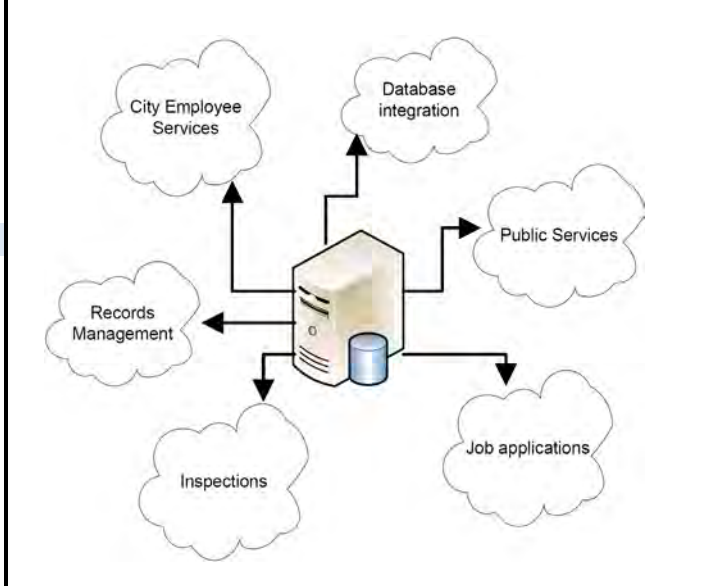
Capital Reserve (Wholly or in Part): IT Systems & Infrastructure - page 21

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain database integration, integrity and availability requirements in accordance with department mission.



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition		24,000		25,000		24,000		73,000
Other								0
TOTAL	\$0	\$24,000	\$0	\$25,000	\$0	\$24,000	\$0	\$73,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve		24,000		25,000		24,000		73,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$24,000	\$0	\$25,000	\$0	\$24,000	\$0	\$73,000

SCHEDULE OF NETWORK EQUIPMENT REPLACEMENT

Building	Type	End of life (sale)	End of Maintenance	End of Support	Replacement Cost	FY Subtotal
Primary Datacenter	Firewall	N/A			\$9,000	FY24
Secondary Datacenter	Firewall	N/A			\$9,000	\$18,000
Police Department	Switch	N/A			\$8,000	
Police Department	Switch	N/A			\$8,000	
Police Department	Switch	N/A			\$8,000	FY25
Police Department	Switch	N/A			\$8,000	\$50,200
Police Department	Switch	N/A			\$8,000	
City Hall	Switch	N/A			\$5,100	
City Hall	Switch	N/A			\$5,100	
						FY26
Wireless Access Points	WAP	N/A			\$37,800	\$37,800
City Hall	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
City Hall	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
City Hall	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
City Hall	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
Fire Central Station	Switch	Oct-20	Oct-22	Oct-26	\$5,100	
Water Treatment	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
Waste Water	Switch	Oct-20	Oct-22	Oct-26	\$5,100	
Waste Water	Switch	Oct-20	Oct-22	Oct-26	\$3,700	FY27
Waste Water	Switch	Oct-20	Oct-22	Oct-26	\$3,700	\$112,800
Waste Water	Switch	Oct-20	Oct-22	Oct-26	\$5,100	
400 Marlboro (Records Management)	Switch	Oct-20	Oct-22	Oct-26	\$5,100	
Heberton Hall	Switch	Oct-20	Oct-22	Oct-26	\$6,500	
Heberton Hall	Switch	Oct-20	Oct-22	Oct-26	\$6,500	
City Hall	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
City Hall	Switch	Oct-20	Oct-22	Oct-26	\$8,000	
Fire Central Station	Switch	N/A			\$8,000	
Library	Switch	N/A			\$8,000	
Fire Station Two	Switch	N/A			\$5,100	
Public Works	Switch	N/A			\$8,000	
Public Works	Switch	N/A			\$8,000	
Parks and Rec	Switch	N/A			\$8,000	
Waste Water	Switch	N/A			\$5,100	
Airport	Switch	N/A			\$8,000	FY28
Library	Switch	N/A			\$8,000	\$73,500
Library	Switch	N/A			\$8,000	
Public Works	Switch	N/A			\$5,100	
Parks and Rec	Switch	N/A			\$5,100	
Public Works	Switch	N/A			\$5,100	
						FY29
Wastewater	switch	N/A			\$8,000	\$8,000

\$300,300	\$300,300
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2023 - 2029 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project/Program: Network Equipment Replacement Program

Project Number: 90144 / 50M0002

Physical Location: Multiple Facilities

Type: Ongoing Program

Capital Reserve (Wholly or in Part): IT Systems & Infrastructure - page 21

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

Departmental Objective: Required to provide network, phone, and computing services for all City departments and to keep pace with evolving cybersecurity minimum standards.



PROJECT/PROGRAM 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 growing cybersecurity threats. This plan calls for the replacement of the network equipment in the year the manufacturer will no longer provide maintenance and support services or five to seven years, whichever comes first.

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 - typically five to seven years. 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 or network intrusion.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition		18,000	50,200	37,800	112,800	73,500	8,000	300,300
Other								0
TOTAL	\$0	\$18,000	\$50,200	\$37,800	\$112,800	\$73,500	\$8,000	\$300,300

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve		18,000	50,200	37,800	112,800	73,500	8,000	300,300
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$18,000	\$50,200	\$37,800	\$112,800	\$73,500	\$8,000	\$300,300

SERVER REPLACEMENT SCHEDULE/COSTS

Server Function	Fiscal Year	Replacement Cost
Datacenter 1 UPS	FY23	\$15,000
Virtual Server Host	FY23	\$10,000
Exchange Licensing	FY25	\$0
Virtual Server Host	FY25	\$10,000
Virtual Server Host	FY25	\$10,000
Virtual Server Host	FY25	\$10,000
Datacenter 2 UPS	FY26	\$15,000
Server OS Licensing	FY27	\$53,000
Virtual Server Host (same as line #2)	FY28	\$10,000
		\$133,000

2023 - 2029 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project/Program: Server Replacement Program

Project Number: 90182 / 50M0004
 Physical Location: City Hall & Remote Data Center
 Type: Ongoing Program
Capital Reserve (Wholly or In Part): IT Systems & Infrastructure - page 21
 Federal / State Regulation or Law: N/A

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

Departmental Objective: Required to provide software and computing services for all departments



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

Information systems are utilized by every City department in the process of providing services to the public. From virtual servers to email systems to file and print servers to databases to operational software applications and GIS systems - all require that core server equipment run reliably. This program provides funding for the replacement of existing host servers every five years as well as upgrades to the Microsoft Server operating systems and required Client Access Licenses (CALs). The replacement schedule is designed to maximize uptime, maintain minimum performance requirements and minimize long term costs. This ensures that the processing capabilities of the server hardware and software are sufficient to support City operations.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition	25,000		30,000	15,000	53,000	10,000		133,000
Other								0
TOTAL	\$25,000	\$0	\$30,000	\$15,000	\$53,000	\$10,000	\$0	\$133,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	25,000		30,000	15,000	53,000	10,000		133,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$25,000	\$0	\$30,000	\$15,000	\$53,000	\$10,000	\$0	\$133,000

2023 - 2029 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project/Program: Storage Area Network Project

Project Number: TBD

Physical Location: IT Data Center

Type: One-time Project

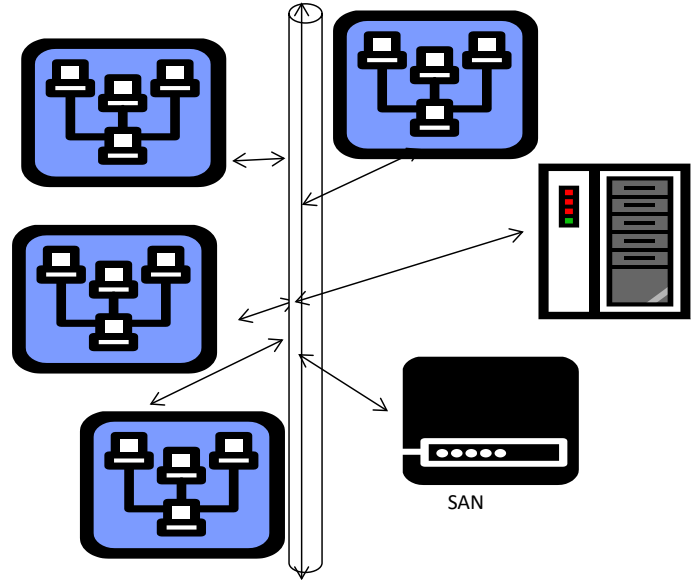
Capital Reserve (Wholly or In Part): IT Systems & Infrastructure - page 21

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

Departmental Objective: Provide reliable file access, storage, backup and recovery services for all City departments.



PROJECT/PROGRAM 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 all City servers 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 five years.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation				13,400				13,400
Property/Equip. Acquisition				176,000				176,000
Other								0
TOTAL	\$0	\$0	\$0	\$189,400	\$0	\$0	\$0	\$189,400

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve				189,400				189,400
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$189,400	\$0	\$0	\$0	\$189,400

2023 - 2029 Capital Project Funding Request Information Technology



GENERAL PROJECT DATA

Project/Program: Phone System Replacement Project

Project Number: TBD

Physical Location: Organization-Wide

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: N/A

CMP Vision/Strategy: Infrastructure

Council Goals: Infrastructure – Continue to ensure that Keene’s municipal infrastructure supports the varied needs of Keene residents and businesses.

Departmental Objective: Provide telecommunications services for all City departments



PROJECT/PROGRAM 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 24/7 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	37,000							37,000
Property/Equip. Acquisition	224,500							224,500
Other								0
TOTAL	\$261,500	\$0	\$0	\$0	\$0	\$0	\$0	\$261,500

FINANCIAL PLAN

FUNDING								
Current Revenue	261,500							261,500
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$261,500	\$0	\$0	\$0	\$0	\$0	\$0	\$261,500

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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 has been an important part of the greater Keene community for nearly 7 decades with a long history as an economic driver for the Monadnock region. It is a vibrant general aviation airport with all available hangars utilized and a high demand for more hangar space. Daily flight operations include corporate and charter jets providing convenient global access for business travel to and from our community, private aircraft used for personal or business travel, and a variety of other aeronautical activities including from military, law enforcement, medical transport and utility inspections. The Keene airport has the third-longest runway in the state and, along with an instrument landing system, provides access for any corporate aircraft wishing to come to Keene.

There are currently three businesses operating at the airport providing direct economic impact through jobs and direct commerce. The most recent Airport Economic Impact Study performed by the NH Department of Transportation estimated that with both direct and indirect airport-related activities, our airport provides for \$7.3 million in regional payroll and a regional economic benefit of \$21.44 million. This employment base is made up from airport based businesses which include restaurant workers, aircraft mechanics, corporate aircrews and aviation support staff as well as employees that work at local companies, such as C&S Wholesalers, who are in this region because of the airport.

The City continues to work with the Airport Marketing & Development Committee to maximize opportunities for further growth with the goal of increasing airport viability and becoming financially self-sustaining. Several current and proposed projects will move us closer to that goal. This growth will not only benefit the City of Keene but will also improve the tax base for the Town of Swanzey.

Operating an airport requires substantial infrastructure. By capitalizing on F.A.A. funding through Airport Improvements Program (AIP) grants, a significant amount of these infrastructure improvements can be accomplished with minimal local investments. The Keene Dillant-Hopkins Airport has benefited from nearly \$10m from this program since FY2015 and we will continue to maximize this funding for future fundable projects.

Having an airport that provides the connectivity and development potential that we have provides opportunities other communities in the State of New Hampshire will never have. We hope that the City Council will embrace these opportunities and development efforts by supporting airport capital projects and economic development efforts in the coming years.

2023 - 2029 Capital Project Funding Request

Airport



GENERAL PROJECT DATA

Project/Program: Perimeter Fence Project

Project Number: TBD

Physical Location: Keene Dillant-Hopkins Airport

Type: Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

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

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	270,000							270,000
Construction / Implementation		1,080,000						1,080,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$270,000	\$1,080,000		\$0	\$0	\$0	\$0	\$1,350,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue	13,500	54,000						67,500
Capital Reserve								0
Debt Funded								0
Federal / State Grants	256,500	1,026,000						1,282,500
Other Sources								0
TOTAL	\$270,000	\$1,080,000	\$0	\$0	\$0	\$0	\$0	\$1,350,000

2023 - 2029 Capital Project Funding Request

Airport



GENERAL PROJECT DATA

Project/Program: Obstruction Management Program

Project Number: TBD

Physical Location: Keene Dillant-Hopkins Airport

Type: Ongoing Program

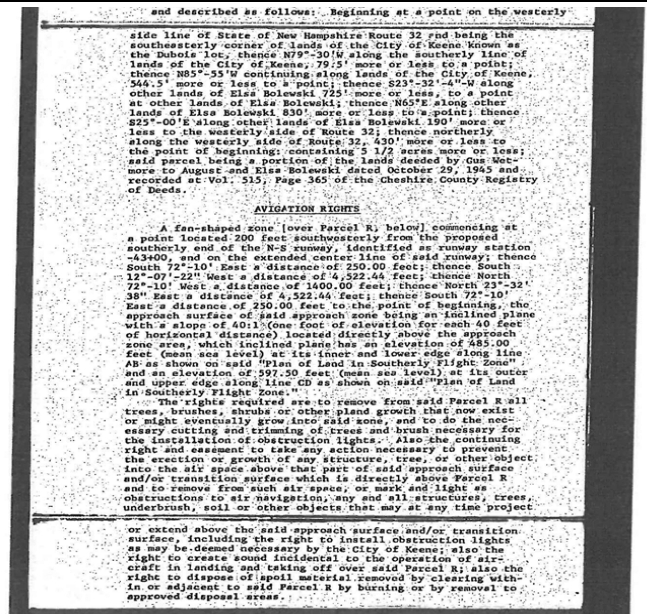
Capital Reserve (Wholly or In Part): N/A

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

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

Departmental Objective: To meet safety obligations for the management of obstructions to aeronautical operations



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

Over the period 2016-2018, the airport 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.

We anticipate completing a detailed inventory of obstructions in FY25. In FY26, funds are requested to negotiated and obtain the necessary easements from affected property owners. The removal of the actual obstructions is planned for FY27.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			166,700					166,700
Construction / Implementation						330,000	166,700	496,700
Property/Equip. Acquisition				166,700	166,700			333,400
Other								0
TOTAL	\$0	\$0	\$166,700	\$166,700	\$166,700	\$330,000	\$166,700	\$996,800

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue			8,335	8,335	8,335	16,500	8,335	49,840
Capital Reserve								0
Debt Funded								0
Federal / State Grants			158,365	158,365	158,365	313,500	158,365	946,960
Other Sources								0
TOTAL	\$0	\$0	\$166,700	\$166,700	\$166,700	\$330,000	\$166,700	\$996,800

2023 - 2029 Capital Project Funding Request

Airport



GENERAL PROJECT DATA

Project/Program: Pavement Maintenance & Marking Program

Project Number: TBD

Physical Location: Keene Dillant-Hopkins Airport

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM 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).

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			166,700	74,000	54,000			294,700
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$166,700	\$74,000	\$54,000	\$0	\$0	\$294,700

FINANCIAL PLAN

FUNDING								
Current Revenue			8,335	3,700	2,700			14,735
Capital Reserve								0
Debt Funded								0
Federal / State Grants			158,365	70,300	51,300			279,965
Other Sources								0
TOTAL	\$0	\$0	\$166,700	\$74,000	\$54,000	\$0	\$0	\$294,700

2023 - 2029 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project/Program: Snow Removal Equipment Project

Project Number: TBD

Physical Location: Keene Dillant-Hopkins Airport

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

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

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/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition			555,556					555,556
Other								0
TOTAL	\$0	\$0	\$555,556	\$0	\$0	\$0	\$0	\$555,556

FINANCIAL PLAN

FUNDING								
Current Revenue			27,778					27,778
Capital Reserve								0
Debt Funded								0
Grants			527,778					527,778
Other Sources								0
TOTAL	\$0	\$0	\$555,556	\$0	\$0	\$0	\$0	\$555,556

2023 - 2029 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project/Program: Terminal Apron Expansion Project

Project Number: TBD

Physical Location: Keene Dillant-Hopkins Airport

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

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

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

Departmental Objective: To expand airside capacity at the airport terminal



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design						195,000		195,000
Construction / Implementation							3,400,000	3,400,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$195,000	\$3,400,000	\$3,595,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue						9,750	170,000	179,750
Capital Reserve								0
Debt Funded								0
Federal / State Grants						185,250	3,230,000	3,415,250
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$195,000	\$3,400,000	\$3,595,000

2023 - 2029 Capital Project Funding Request Airport



GENERAL PROJECT DATA

Project/Program: Beacon Replacement Project

Project Number: 90216 / 05J0008

Physical Location: Keene Dillant-Hopkins Airport

Type: Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Infrastructure

Departmental Objective: To maintain compliance with FAA safety regulations regarding the maintenance and operation of aviation hazard beacons



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			500,000					500,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$500,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue			25,000					25,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants			475,000					475,000
Other Sources								0
TOTAL	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$500,000

Public Works

Transportation

The City's transportation infrastructure comprises of 123 centerline miles of streets/roads, 33 active vehicle bridges, over 52 miles of sidewalks, 14,900 linear feet of guard rail, 8 traffic control signals, 4 flashing traffic signals and 9 multi-use and pedestrian bridges with over 10 miles of multi-use trails. The City's transportation system provides critical links within the City, to the region, to the State, and ultimately to the world. The City's transportation system accommodates multiple modes of transportation with sidewalks, bike lanes, shared use roadways along with separated multi-use trails. The City's 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 sets 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, bicycles; multi-passenger vehicles, tractor-trailer trucks, electric vehicles, 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 small maintenance and repair projects in the Operating Budget. Through the Capital Improvement Program (CIP), major preservation, maintenance, and repair programs and construction projects are identified and laid out. These programs and projects include; Bridge Repair/Replacement Program, Road Preservation and Rehabilitation Program, and the Traffic Signal Replacement Program. A new program proposed in this CIP is the Sidewalk Asset Management Program to address substandard sidewalk conditions and improve pedestrian mobility in the community.

To determine the needs for these projects the Public Works Department performs inventories 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 of repair strategies, priority, and timing. Ultimately, all this information is brought together into an Asset Management Plan. 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. This then comes together as priorities for when work is completed.

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 Projects, Lower Winchester Street Reconstruction, West Street Corridor Improvements, and Victoria Street Extension. 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 and 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 natural 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 (Three Mile Reservoir, Asheulot River, and Robin Hood Park). The community has 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 Climate Change and 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 stormwater system through maintenance and improvement of existing components. This is done through the Operating Budget and the Capital Improvement Program (CIP). Current CIP projects to maintain the existing system include Stormwater Spot Repair Program, Stormwater Channel Maintenance Program, and Stormwater Main Lining Program. 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 Stormwater Resiliency Program identifies these specific locations and the proposed solution to address the particular flooding issue.

The City develops new projects to reduce flooding problems. In the current CIP, projects to reduce flooding include the Beaver Brook Flood Mitigation Project 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 systems, new solutions to reduce flooding, and the cost 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 live work and play within the community. Within the proposed CIP, these projects include Downtown Infrastructure Improvement and Reconstruction Project, the Lower Winchester Street Reconstruction Project, and West Street Corridor Improvement Project.

DOWNTOWN INFRASTRUCTURE IMPROVEMENT AND RECONSTRUCTION PROJECT
CONSOLIDATED FUNDING OVERVIEW

The proposed Downtown Infrastructure Improvements and Reconstruction project will combine funding from a number of General Fund programs as well as funds from the Water and Sewer Funds. The table below summarizes the source of funds and the year that funding is requested. Since the project is planned to occur in three separate construction phases, the timing of expenditures may be different than the schedule shown below.

Description	Prior Yr.	FY24	FY25	FY26	FY27
Street/Sidewalk/Other Improvements	\$680,000		\$500,000	\$500,000	\$500,000
Stormwater Resiliency Program			\$2,159,300		
Traffic Signal Replacement		\$196,800	\$202,700		
Sewer Improvements	\$277,100	\$61,935	\$474,965		
Water Distribution Improvements	\$242,000		\$1,622,600		
Subtotal	\$1,199,100	\$258,735	\$4,959,565	\$500,000	\$500,000
Total Grand Project					\$7,417,400

2023 - 2029 Capital Project Funding Request

Public Works



GENERAL PROJECT DATA

Project/Program: Downtown Infrastructure Improvement and Reconstruction Project

Project Number: 90315 / 75J0034

Physical Location: Central Square, Main, Church, Gilbo, Lamson

Type: Multiphase Project

Capital Reserve (Wholly or in Part): Downtown Infrastructure - page 19

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Economic Development, Vibrant Downtown, 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/PROGRAM 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 has supported the Downtown for the last 30 years. The concept of what Downtown is has expanded over the years and now includes the Railroad Street area to 93rd Street, south to the Main/Marlboro/Winchester intersection, down Roxbury Street to Roxbury Plaza and is moving down Gilbo Avenue to School Street. 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, such as open spaces, along Main Street and look to incorporate the Downtown concepts to areas immediately off of Main Street. It is anticipated that the City will seek grants and other funding that will require an economic analysis that is within the existing funding. It is anticipated that preliminary design can begin in early calendar year 2022. Construction has been initially set for FY25, FY26, and FY27. 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 Water Street/Davis Street. The estimated cost for improvements will be adjusted based on the outcome of the planning work.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			500,000	500,000	500,000			1,500,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$500,000	\$500,000	\$500,000	\$0	\$0	\$1,500,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve			500,000	500,000	500,000			1,500,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$500,000	\$500,000	\$500,000	\$0	\$0	\$1,500,000

2023

2024

2025

PRESERVATION	EST. COST
Baker Street	\$ 15,600
Center	\$ 1,900
Grove Street	\$ 5,800
Hurricane Road (Arch to Dickinson)	\$ 32,700
Middle	\$ 2,000
Summer	\$ 4,600
Washington Street	\$ 37,500
Winter	\$ 6,200
Subtotal - Preservation	\$ 106,300

PRESERVATION	EST. COST
Roxbury Road	\$ 47,100
School Street	\$ 20,800
Woodbury St	\$ 9,500
North St. (Gilsun to Elm)	\$ 5,900
Valley	\$ 6,300
Kingsbury	\$ 2,600
Fowler	\$ 3,100
Bridge Ct.	\$ 1,900
Richardson Ct.	\$ 2,100
Perham	\$ 2,100
Woodburn	\$ 5,300
Subtotal - Preservation	\$ 106,700

PRESERVATION	EST. COST
Adams Ct	\$ 1,300
Adams St	\$ 9,500
Avalon	\$ 2,600
Elliot	\$ 3,100
Gates	\$ 3,000
Moore Farm	\$ 4,600
No Name	\$ 2,200
Proctor Ct	\$ 2,200
South St	\$ 3,500
Sullivan Road (Rt. 9 to Town Line)	\$ 18,600
River St.	\$ 8,800
Subtotal - Preservation	\$ 59,400

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

MINOR REHABILITATION	EST. COST
Airport Road	\$ 108,000
Winchester (Main to Island)	\$ 182,000
Park Ave (Summit to Maple)	\$ 29,700
Key Road	\$ 144,300
Subtotal - Minor Rehab.	\$ 464,000

MINOR REHABILITATION	EST. COST
Greenwood Avenue	\$ 97,800
Kenworth Avenue	\$ 13,500
Lynwood Avenue	\$ 29,600
Riverton Street	\$ 11,200
Walker Street	\$ 5,500
West St (Park to Base Hill)	\$ 102,600
Subtotal - Minor Rehab.	\$ 260,200

MAJOR REHABILITATION	EST. COST
Court Street (Westview to East Surry)	\$ 318,700
Main Street (Silent Way to City Limit)	\$ 249,800
Maple Avenue (Summit to Park)	\$ 50,100
North Lincoln Street	\$ 29,700
Old Walpole Road	\$ 102,600
Summit Road (Hastings to Park)	\$ 114,800
Subtotal - Major Rehab.	\$ 865,700

MAJOR REHABILITATION	EST. COST
Elm Street (Vernon to Cross)	\$ 111,200
Evergreen	\$ 29,500
Island Street	\$ 162,800
Marlboro (East of Eastern)	\$ 198,800
Old Homestead Hwy	\$ 27,600
Wilford	\$ 24,900
Subtotal - Major Rehab.	\$ 554,800

MAJOR REHABILITATION	EST. COST
Cedar	\$ 32,100
Cone	\$ 24,000
Hamden	\$ 53,600
Iceland	\$ 20,900
Leawood	\$ 21,800
Needle	\$ 33,800
Queens	\$ 37,000
Robbins Ct.	\$ 14,800
Robbins Rd.	\$ 137,700
Russell	\$ 83,900
Sawyer	\$ 49,400
Stanhope	\$ 39,800
Stanton	\$ 18,600
West St. (Central Sq. to School)	\$ 98,300
Wheelock	\$ 33,800
Worcester	\$ 43,900
Subtotal - Major Rehab.	\$ 743,400

Subtotal	\$ 972,000
10% Contingency	\$ 97,200
Construction Total	\$ 1,069,200
Design, & Construction Admin.	\$ 10,692
2021 Cost	\$ 1,079,892
Inflation adjustment	\$ 65,765
Total Program Cost	\$ 1,145,657

Subtotal	\$ 1,125,500
10% Contingency	\$ 112,550
Construction Total	\$ 1,238,050
Design, & Construction Admin.	\$ 12,381
2021 Cost	\$ 1,250,431
Inflation adjustment	\$ 115,949
Total Program Cost	\$ 1,366,379

Subtotal	\$ 1,063,000
10% Contingency	\$ 106,300
Construction Total	\$ 1,169,300
Design, & Construction Admin.	\$ 51,693
2021 Cost	\$ 1,220,993
Inflation adjustment	\$ 153,245
Total Program Cost	\$ 1,374,238

2026

2027

2028 & 2029

PRESERVATION	EST. COST
Caddy	\$ 1,200
Cobb	\$ 1,300
Federal	\$ 1,400
Hooper	\$ 1,600
Lamson	\$ 1,900
Martin	\$ 4,500
Roxbury	\$ 33,000
Speaker	\$ 1,600
St. James	\$ 1,500
Subtotal - Preservation	\$48,000

PRESERVATION	EST. COST
Blossom	\$ 10,400
Carpenter	\$ 5,900
Chapman	\$ 30,200
Concord Road	\$ 54,300
Darling	\$ 19,300
Dickinson	\$ 21,400
Forestview	\$ 7,600
Meetinghouse	\$ 15,600
Old Walpole	\$ 10,700
Timberlane	\$ 23,600
Winchester (Rt. 101 to Island)	\$ 24,300
Subtotal - Preservation	\$223,300

PRESERVATION	EST. COST
TBD ⁽¹⁾	\$ 175,000
Subtotal - Preservation	\$175,000

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

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

MINOR REHABILITATION	EST. COST
TBD ⁽¹⁾	\$ 175,000
Subtotal - Minor Rehab.	\$175,000

MAJOR REHABILITATION	EST. COST
Cornwell	\$ 143,000
Court Street (East Surry to Maple)	\$ 231,400
Cranberry Ln.	\$ 97,632
Foundry	\$ 29,100
George	\$ 119,400
Martell Ct.	\$ 114,800
Minerva Lane	\$ 44,200
Pheasant Hill	\$ 71,900
Silent Way	\$ 88,600
Sullivan St.	\$ 103,600
Subtotal - Major Rehab.	\$ 1,043,632

MAJOR REHABILITATION	EST. COST
Belvedere Rd.	\$ 116,200
Burdett	\$ 22,000
Charles	\$ 24,100
Emerald St.	\$ 102,400
Fairfield Ct.	\$ 9,800
Ferry Brook Rd.	\$ 138,100
Hancock St.	\$ 15,500
Main St. (Emerald to Winchester)	\$ 147,000
Victoria St.	\$ 46,300
Victoria Ct.	\$ 41,200
Wilson St.	\$ 78,600
Subtotal - Major Rehab.	\$ 741,200

MAJOR REHABILITATION	EST. COST
TBD ⁽¹⁾	\$ 750,000
Subtotal - Major Rehab.	\$ 750,000

Subtotal	\$ 1,091,632
10% Contingency	\$ 109,163
Construction Total	\$ 1,200,795
Design, & Construction Admin.	\$ 12,008
2021 Cost	\$ 1,212,803
Inflation adjustment	\$ 193,168
Total Program Cost	\$ 1,405,971

Subtotal	\$ 964,500
10% Contingency	\$ 96,450
Construction Total	\$ 1,060,950
Design, & Construction Admin.	\$ 10,610
2021 Cost	\$ 1,071,560
Inflation adjustment	\$ 207,939
Total Program Cost	\$ 1,279,499

Subtotal	\$ 1,100,000
10% Contingency	\$ 110,000
Construction Total	\$ 1,210,000
Design, & Construction Admin.	\$ 57,100
2021 Cost	\$ 1,267,100
Inflation adjustment	\$ 291,273
Total Program Cost	\$ 1,558,373

Notes: 1) The specific scope of work for FY28 & FY29 will be determined based on the proposed FY25 condition survey.

2023 - 2029 Capital Project Funding Request

Public Works



GENERAL PROJECT DATA

Project/Program: Roadway Preservation & Rehabilitation

Project Number: 90018

Physical Location: City Roadways

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Road & Sidewalk Infrastructure - page 24

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation, Infrastructure, Economic Development

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The City maintains 123 miles of roads, of which 121 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 reduce contractor mobilization costs.

The Road Program for FY23-29 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 FY23-29 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 FY25 and FY29, funds are requested to perform a detailed road condition survey. Updated condition assessments will be performed every four years.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			40,000				45,000	85,000
Construction / Implementation	1,145,657	1,366,379	1,334,238	1,405,971	1,279,498	1,558,373	1,513,373	9,603,489
Property/Equip. Acquisition								0
Other - Debt Issuance	2,343	3,621	3,762	11,029	10,502	12,627	11,627	55,511
TOTAL	\$1,148,000	\$1,370,000	\$1,378,000	\$1,417,000	\$1,290,000	\$1,571,000	\$1,570,000	\$9,744,000

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve			40,000				45,000	85,000
Debt Funded	298,000	520,000	488,000	1,417,000	1,290,000	1,571,000	1,525,000	7,109,000
Federal / State Grants								0
Other Sources	850,000	850,000	850,000					2,550,000
TOTAL	\$1,148,000	\$1,370,000	\$1,378,000	\$1,417,000	\$1,290,000	\$1,571,000	\$1,570,000	\$9,744,000

BRIDGE REHABILITATION AND REPLACEMENT PROGRAM

The City is responsible for 42 bridges, including 33 vehicular bridges and 9 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 (NHDOT) 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 10 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) Island Street over Ashuelot River ⁽²⁾ | 6) Church Street over Beaver Brook |
| 2) George St. over Beaver Brook ⁽³⁾ | 7) Ferry Brook Road over Ferry Brook |
| 3) Winchester St. over Ash Swamp Brook ⁽⁴⁾ | 8) Whitcombs Mill Rd. over White Brook |
| 4) Beaver St. over Beaver Brook | 9) Summit Road over Black Brook |
| 5) Maple Ave. over Black Brook | 10) Spring Street over Beaver 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 or if additional federal funding becomes available).

Roadway	Waterway	Description	Design Year	Anticipated Construction Year	Construction Cost Estimate
Island Street ⁽²⁾	Ashuelot River	Design is underway for the replacement structure.	2018	2021	*See costs for State Bypass Program
George Street ⁽³⁾	Beaver Brook	Design for the replacement of this bridge began in the fall of 2021. Construction is planned for 2024.	2023	2024	\$787,571
Winchester Street / Rt. 10	Ash Swamp Brook	Design of this project has been suspended due to NHDOT 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. ⁽⁴⁾ 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 NHDOT estimated the replacement cost at \$655K in 2009 ⁽⁵⁾ . 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 ⁽⁶⁾ . 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 ⁽⁷⁾ . Therefore, the City will require matching funds of \$218,700 by the Fall of 2024 in order to request inclusion in the NHDOT’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 NHDOT’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. The Island St. bridge was previously included on the State’s Red List, but was removed due to a change in the state’s definition of red-list eligibility.
 - 2) Replacement of the Island St. bridge is planned and funded as part of the Winchester Street Reconstruction Project.
 - 3) Replacement of the George St. bridge is funded in the NHDOT Ten Year Plan for construction in 2024.
 - 4) 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.
 - 5) 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.
 - 6) The replacement cost for Maple Avenue was estimated at \$680,000 in 2018. With inflation, the construction-year estimated cost will be \$998,603.
 - 7) 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.

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Bridge Repair and Replacement Program

Project Number: TBD

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): **Bridges - page 26**

Federal / State Regulation or Law: NH RSA 234

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure, Transportation

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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 includes funding for the replacement of the George Street Bridge. Design for this work is currently underway (funds were appropriated in FY22). Construction is planned in 2024.

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.

The City originally requested Municipal Bridge Aid for the Beaver Street bridge in 2010. In 2018, Public Works reminded the NHDOT that this project was still awaiting funding. Currently, it has not been added to the State's TYP, but we have requested the plan be amended to include this bridge for construction in 2028.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design				172,282				172,282
Construction / Implementation		654,520				953,293		1,607,813
Property/Equip. Acquisition	15,653				22,971			38,624
Other								0
TOTAL	\$15,653	\$654,520	\$0	\$172,282	\$22,971	\$953,293	\$0	\$1,818,719

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve	3,131	130,904		34,456	4,594	190,659		363,744
Debt Funded								0
Federal / State Grants	12,522	523,616		137,826	18,377	762,634		1,454,975
Other Sources								0
TOTAL	\$15,653	\$654,520	\$0	\$172,282	\$22,971	\$953,293	\$0	\$1,818,719

LOWER WINCHESTER STREET RECONSTRUCTION
 from NH Rte. 101 Roundabout to Swanzey Town Line

The reconstruction of Lower Winchester Street from the NH Route 101 Roundabout to the Swanzey Town Line and replacement of the Winchester Street Bridge over Ash Swamp Brook is included in the NHDOT draft FY2023 - 2032 Ten Year Plan dated September 17, 2021. Preliminary engineering is scheduled in early 2022, 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*	\$186,121	\$46,530	\$232,651	2023
CON*	\$3,200,000	\$800,000	\$4,000,000	2025
CON*	\$2,520,000	\$630,000	\$3,150,000	2026
Project Totals	\$6,906,343	\$1,726,586	\$8,632,929	

* Estimated costs have been updated based on an NHDOT cost estimate prepared in Sept. 2021.
 Phase: CON = Construction PE = Preliminary Engineering ROW = Right-of-Way Acquisition

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Lower Winchester Street Reconstruction

Project Number: 90266 / 75J0026

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

Type: Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation, Infrastructure

Departmental Objective: Improve gateway/corridor into the City



PROJECT/PROGRAM 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.

During preliminary project discussions, the NHDOT and the Southwest Regional Planning Commission requested that the project limits be extended to include pedestrian improvements in the town of Swanzey. If the Town elects to move forward with those improvements, the City will facilitate the work as part of our project, with Swanzey paying the 20% local match for any improvements constructed at their request.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			4,000,000	3,150,000				7,150,000
Property/Equip. Acquisition	232,651							232,651
Other - Debt Issuance			30,000	25,000				55,000
TOTAL	\$232,651	\$0	\$4,030,000	\$3,175,000	\$0	\$0	\$0	\$7,437,651

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue	46,530							46,530
Capital Reserve								0
Debt Funded			830,000	655,000				1,485,000
Federal / State Grants	186,121		3,200,000	2,520,000				5,906,121
Other Sources								0
TOTAL	\$232,651	\$0	\$4,030,000	\$3,175,000	\$0	\$0	\$0	\$7,437,651

WEST STREET CORRIDOR IMPROVEMENTS

from NH Rte. 9 / 10 / 12 to School Street

The reconstruction of West Street from the NH Route 9/10/12 interchange to the School Street intersection is included in the NHDOT draft FY2023 - 2032 Ten Year Plan dated September 17, 2021. Preliminary engineering is scheduled for FY29, right-of-way acquisition for FY30, and construction for FY32. This project requires a 20% cost match from the City. State Project Number KEENE (43543).

Phase	State	City	Total Budget	Program Year (FY)
PE	\$628,220	\$157,055	\$785,275	2027
ROW	\$254,434	\$63,608	\$318,042	2030
CON	\$4,806,130	\$1,201,532	\$6,007,662	2032
Project Totals	\$5,688,783	\$1,422,196	\$7,110,979	

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

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: West Street Corridor Improvements Project

Project Number: TBD
 Physical Location: West St., from NH Rt. 9/10/12 to School St.
 Type: New Multiphase Project
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment
 CMP Vision/Strategy: Transportation, Infrastructure, Economic Development
 Departmental Objective: Improve gateway/corridor into the City



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

With the anticipated reconstruction of lower Winchester Street in 2025/2026, the West Street corridor will be the last gateway street to not undergo significant renovation. Besides the obvious deterioration of the road surface, the corridor presents several challenges:

- High volume of traffic turning into numerous curb cuts causes inefficient traffic flow and excessive delays
- Drivers have difficulty turning left out of Pearl Street, especially during peak traffic hours
- Traffic signals throughout the corridor are in poor condition and use obsolete technology (exacerbating traffic delays)
- Sidewalks are inadequate and do not meet accessible design standards
- There are no accommodations for bicyclists
- The West St. bridge over the Ashuelot River has structural defects which should be addressed
- The corridor provides a poor aesthetic which discourages private investment and redevelopment

The project will seek to address these challenges while minimizing impacts to private property.

This project is included in the NHDOT draft FY2023 - 2032 Ten Year Plan dated September 17, 2021. Preliminary Engineering is scheduled to begin in F27, with construction beginning in FY32.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	TOTAL
EXPENDITURES									
Design					785,275				785,275
Construction / Implementation									0
Property/Equip. Acquisition									0
Other									0
TOTAL	\$0	\$0	\$0	\$0	\$785,275	\$0	\$0	\$0	\$785,275

FINANCIAL PLAN

FUNDING									
Current Revenue					157,055				157,055
Capital Reserve									0
Debt Funded									0
Federal / State Grants					628,220				628,220
Other Sources									0
TOTAL	\$0	\$0	\$0	\$0	\$785,275	\$0	\$0	\$0	\$785,275

SIDEWALK ASSET MANAGEMENT PROGRAM

The table below outlines priorities and costs for the sidewalk asset management program

Year	Location	Linear Feet of Reconstruction	2021 Estimated Cost (1)	Inflation Adjustment	Implementation Year Cost (2)	Total Design Cost	Total Construction Cost	Year Total
2023	Main St., lower	1,300	\$ 129,757	\$ 7,902	\$ 137,700	\$ 22,700	\$ 249,700	\$ 272,400
	School St.	420	\$ 33,493	\$ 2,040	\$ 35,500			
	N. Lincoln St.	510	\$ 50,671	\$ 3,086	\$ 53,800			
2024	Belmont Ave.	1,150	\$ 114,831	\$ 10,648	\$ 125,500	\$ 24,200	\$ 266,400	\$ 290,600
	River St.	660	\$ 65,480	\$ 6,072	\$ 71,600			
	Jennison St.	340	\$ 41,232	\$ 3,823	\$ 45,100			
2025	Blake St.	610	\$ 73,167	\$ 9,183	\$ 82,300	\$ 24,750	\$ 272,250	\$ 297,000
	Willow St.	800	\$ 96,224	\$ 12,077	\$ 108,300			
	Winchester Ct.	420	\$ 50,524	\$ 6,341	\$ 56,900			
2026	Gardner St.	340	\$ 34,190	\$ 5,446	\$ 39,600	\$ 24,320	\$ 267,520	\$ 291,840
	Harrison St.	420	\$ 41,687	\$ 6,640	\$ 48,300			
	Main St., lower	1,430	\$ 133,958	\$ 21,336	\$ 155,300			
2027	Elliot St.	540	\$ 64,632	\$ 12,542	\$ 77,200	\$ 21,750	\$ 239,250	\$ 261,000
	Gates St.	560	\$ 67,549	\$ 13,108	\$ 80,700			
	Main St., middle	500	\$ 49,941	\$ 9,691	\$ 59,600			
2028	Elm St.	930	\$ 74,530	\$ 17,132	\$ 91,700	\$ 23,250	\$ 255,750	\$ 279,000
	Key Rd.	420	\$ 33,409	\$ 7,680	\$ 41,100			
	McKinley St.	480	\$ 48,321	\$ 11,108	\$ 59,400			
	Beaver St.	270	\$ 32,728	\$ 7,523	\$ 40,300			
2029	Roxbury St.	1,260	\$ 138,410	\$ 36,924	\$ 175,300	\$ 23,900	\$ 262,900	\$ 286,800
	Wilford St.	410	\$ 50,269	\$ 13,410	\$ 63,700			

Total Length (Linear Feet): 13,770

Total Length (Miles): 2.6

Notes:

(1) Costs include funding for design, construction contingencies, and construction oversight as applicable.

(2) Costs include an assumed inflation rate of 3% between estimate year and construction year

2023 - 2029 Capital Project Funding Request

Public Works



GENERAL PROJECT DATA

Project/Program: Sidewalk Asset Management Program

Project Number: 90046 / 75M0004

Physical Location: Various

Type: New Ongoing Program

Capital Reserve (Wholly or In Part): Road & Sidewalk Infrastructure - page 24

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure, Walkable Community

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This program replaces the "Sidewalk Repair / Replacement" and the "Curb Repair / Replacement" projects that were included in prior Capital Improvement Programs. In most cases, curbing and sidewalk are built together under the same contract. In addition, the same contractors typically perform both tasks. We recommend the two projects be merged and managed as a single, long-term program.

The program provides funds for repair or replacement of sidewalks and associated curbing throughout the City. Based on the City's most recent sidewalk inspection data, the greatest need is our inventory of 23 miles of asphalt sidewalks. The program will focus mostly on replacing these sidewalks with concrete over the coming years.

In 2021, Engineering Division staff developed and presented a Sidewalk Asset Management Plan to the City Council. The sidewalk CIP program reflects the recommendations of that plan. The list of specific projects on the preceding page was prioritized based on their current condition and user demand. We also gave preference to sidewalks with known safety concerns. Since we do not have data on the number of actual sidewalk users, we estimated demand by analyzing each sidewalk's proximity to pedestrian generation and destination sites. Sidewalk segments within 1/4 mile of schools, recreational facilities, shopping districts or facilities serving vulnerable populations are scored highest.

Over the 7-year period covered by this CIP, we anticipate replacing a total of 2.6 miles of sidewalks.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	22,700	24,200	24,750	24,320	21,750	23,250	23,900	164,870
Construction / Implementation	249,700	266,400	272,250	267,520	239,250	255,750	262,900	1,813,770
Property/Equip. Acquisition								0
Other								0
TOTAL	\$272,400	\$290,600	\$297,000	\$291,840	\$261,000	\$279,000	\$286,800	\$1,978,640

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	272,400	290,600	297,000	291,840	261,000	279,000	286,800	1,978,640
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$272,400	\$290,600	\$297,000	\$291,840	\$261,000	\$279,000	\$286,800	\$1,978,640

TRAFFIC SIGNAL AND FLASHING SIGNAL REPLACEMENT PROGRAM

Location	Fiscal Years									
	23	24	25	26	27	28	29	30	31	
Traffic Signals										
West Street Evaluation and Interim Repairs ⁽²⁾	\$190,900									
Central Square ⁽¹⁾		\$196,800	\$202,700							
West St @ School St ⁽²⁾				\$208,800						
West St @ Gilbo Ave/Ashuelot St ⁽²⁾					\$221,500					
West St @ West St Plaza ⁽²⁾						\$228,100				
Ashbrook Rd @ Ashbrook Ct							\$234,900			
School St @ Gilbo								\$242,000		
Winchester St @ Key Rd ⁽³⁾										
Flashing Signals										
Court St @ Vernon St			\$35,000							
Washington St @ Vernon St ⁽⁴⁾			\$5,000							
Washington St @ Gilsom St										\$79,000
Maple Ave @ Melody Lane										\$79,000
Annual Total	\$0	\$196,800	\$242,700	\$208,800	\$221,500	\$228,100	\$234,900	\$242,000		\$158,000
Program Total						\$1,732,800				

Notes:

- 1) Funding for the traffic signals in Central Square is planned for FY 23 and FY24. However, the work is expected to be completed in FY25 as part of the Downtown Infrastructure Project.
- 2) The NHDOT Draft Ten Year Plan, dated September 17, 2021, includes federal funding for West Street in 2032. If that project is ultimately approved by the State legislature, The CIP for FY25-31 will be updated to reflect the West St. corridor signals being replaced as part of the federal aid project. Funds requested in FY23 will be used to complete a comprehensive evaluation of the existing signals on West Street and develop a plan for interim repairs aimed at extending the useful life of the existing infrastructure to 2032.
- 3) Winchester Street @ Key Road will be replaced with a roundabout during the reconstruction of Winchester Street in 2022.
- 4) Washington Street @Vernon Street was replaced in 2010 and may only need the controllers to be upgraded.

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Traffic Signal Replacement Program

Project Number: 90111 / 75M0012

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: Manual of Uniform Traffic Control Devices

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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 10 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 on Uniform Traffic Control Devices (MUTCD). The signal controllers use old technology (such as wire loops for detection); only allow for limited timing options; 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 \$160,000 - \$175,000 a calendar year (2021 cost).

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	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	\$190,900	\$196,800	\$242,700	\$208,800	\$221,500	\$0	\$0	\$1,060,700

FINANCIAL PLAN

FUNDING								
Current Revenue	190,900	196,800	242,700	208,800	221,500			1,060,700
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$190,900	\$196,800	\$242,700	\$208,800	\$221,500	\$0	\$0	\$1,060,700

DAM MAINTENANCE PROGRAM

The table below outlines approximate priorities and costs for the dam maintenance program

Year	Location	Objective and Scope of Work	2021 Estimated Cost ⁽¹⁾	Inflation Adjustment	Implementation Year Expenditures ⁽²⁾
2024	Robin Hood Park Reservoir Dam - Recreational	The dam has developed deficiencies since its reconstruction in 2014. Most notable is the erosion of the top of the slope near the road. This work will provide long-term stabilization of the dam slope and also address other drainage concerns to meet New Hampshire Department of Environmental Services (NHDES) Dam Bureau requirements.	\$132,154	\$12,254	\$144,400
2026	Three Mile Reservoir Dam - Flood Control	The Three Mile Reservoir Dam was constructed in 1985 by the United States Army Corps of Engineers (USACE) to reduce flooding along Beaver Brook. Several repairs are needed to restore the dam and levee to its original design. These include concrete repairs, regrading the levee crest, and improving drainage. These repairs are required to meet NHDES and USACE requirements for dam maintenance.	\$147,960	\$23,566	\$171,500
2028	Goose Pond Dam - Recreational	The emergency spillway at Goose Pond Dam was built in 1994. It was not included in the 2019 reconstruction project. Recent inspections show the outlet channel to be eroded and unstable. This work will flatten the slopes of the outlet channel to stabilize the channel and emergency spillway.	\$142,199	\$32,688	\$174,900
2030	TBD	Contract for dam maintenance based on future inspections.	\$100,000	\$30,477	\$130,500

Notes:

(1) Costs include funding for design, construction contingencies, and construction oversight as applicable.

(2) Costs include an assumed inflation rate of 3% between estimate year and construction year

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Dam Maintenance Program

Project Number: TBD

Physical Location: Varies

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: RSA 482:12 and Env-Wr 300

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain dams to comply with NH and federal dam safety regulations



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The City is responsible for ten dams and levees, six of which are used for recreation or flood reduction. Over the past decade, the City has made significant investments into its dams to improve their safety and reliability for years to come. Three of these dams are classified as "High Hazard", meaning that their failure could result in loss of life and significant environmental and economic damage. These include Robin Hood Park Reservoir Dam, Goose Pond Dam, Three Mile Dam (Located 1/2 mile north of the Route 10 / Route 9 branch). Although the City performs annual maintenance of its dams, there are some repairs that exceed the capacity of City Staff. Repair of these dams will meet NHDES and USACE requirements. See the accompanying narrative for more information.

Four of the dams are supported by the general fund - Robin Hood Park Reservoir Dam, Goose Pond Dam, Three Mile Dam and Ashuelot River Dam. The Robin Hood Park Reservoir and Goose Pond Dams are recreational in purpose and the Three Mile and Ashuelot River Dams are for flood control purposes.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		144,400		171,500		174,900		490,800
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$144,400	\$0	\$171,500	\$0	\$174,900	\$0	\$490,800

FINANCIAL PLAN

FUNDING								
Current Revenue		144,400		171,500		174,900		490,800
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$144,400	\$0	\$171,500	\$0	\$174,900	\$0	\$490,800

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Beaver Brook Flood Mitigation

Project Number: TBD

Physical Location: Various

Type: Multiphase Project

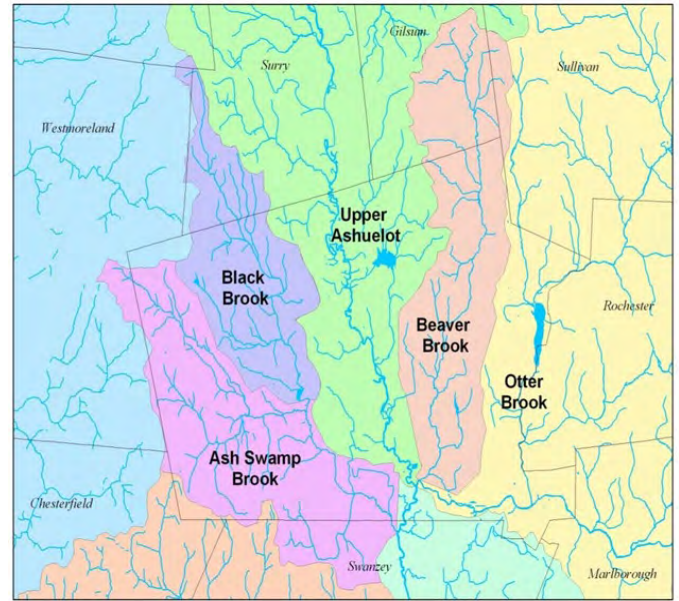
Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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 flood-proofing, 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 2022. 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 FY26 & FY 27 to begin implementing the recommended projects.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation				500,000	500,000			1,000,000
Property/Equip. Acquisition								0
Other - Debt Issuance				4,000	4,000			8,000
TOTAL	\$0	\$0	\$0	\$504,000	\$504,000	\$0	\$0	\$1,008,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded				504,000	504,000			1,008,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$504,000	\$504,000	\$0	\$0	\$1,008,000

STORMWATER RESILIENCY PROGRAM

The table below outlines approximate priorities and costs for planned stormwater resiliency projects

Year	Location	Objective and Scope of Work	2021 Estimated Cost⁽¹⁾	Inflation Adjustment (3% Per Year)	Implementation Year Expenditures⁽²⁾	Expenditure Type
2023	Island St.	Prepare design for Island St. stormwater upgrade	\$81,615	\$4,970	\$86,600	Design
2024	Island St.	Replace undersized clay stormwater system in conjunction with planned water and sewer main replacements	\$897,763	\$83,247	\$981,000	Construction
2025	Downtown Infrastructure	Replace the existing stormwater main along Central Sq. between Court St. and Roxbury St. with a larger-diameter main. Replace deteriorated corrugated metal pipes on Gilbo Ave. to School St. Replace undersized clay and metal drains on Main St., between Central Square and Emerald St.	\$1,918,500	\$240,789	\$2,159,300	Construction
2025	Church Street	Prepare design for Church St. stormwater upgrade	\$103,152	\$12,946	\$116,100	Design
2026	Church Street	Reduce localized street flooding in eastern Keene from undersized mains. Phase 2 of multiple phases in this neighborhood. Replace existing stormwater main with larger-diameter mains between Edwards St. and S. Lincoln St.	\$1,186,245	\$188,938	\$1,375,200	Construction
2026	Key Road	Prepare design and permitting for Key Rd. stormwater culvert replacement	\$35,600	\$5,670	\$41,300	Design
2027	Key Road	Existing corrugated metal arch culvert that crosses Key Rd. has deteriorated and is causing sinkholes in the road. Replace the existing culvert and repair the road	\$261,066	\$50,660	\$311,700	Construction
2027	Court Street	Prepare design and permitting for Court St. stormwater culvert replacement	\$68,897	\$13,370	\$82,300	Design
2028	Court Street	An existing stone and corrugated metal stormwater culvert between Evergreen Ave. and Windsor Ct. has deteriorated and is causing undermining of the road and a critical water main. Replacement is difficult due to limited access and traffic control. Replace the culvert using trenchless technology	\$505,248	\$116,143	\$621,400	Construction
2028	Pako Avenue Dale Drive	Prepare design for phase 1 of Maple Acres stormwater main replacement	\$100,500	\$23,102	\$123,600	Design
2029	Pako Avenue Dale Drive	Reduce localized street flooding in the Maple Acres neighborhood from failing corrugated metal stormwater mains. Phase 1 of multiple phases in this neighborhood. Begin replacement of existing large-diameter mains	\$921,250	\$245,762	\$1,167,000	Construction
2029	Edwards Street	Prepare design for Edwards St. stormwater upgrade	\$46,020	\$12,277	\$58,300	Design
2030	Edwards Street	Reduce localized street flooding in eastern Keene from undersized mains. Phase 3 of multiple phases in this neighborhood. Replace existing stormwater main with larger-diameter mains between Church St. and Roxbury St.	\$521,560	\$158,958	\$680,500	Construction

Notes:

(1) Costs include funding for design, construction contingencies, and construction oversight as applicable.

(2) Costs include an assumed inflation rate of 3% between estimate year and construction year

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Stormwater Resiliency Program

Project Number: 90298 / 75M0006

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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. This program also replaces deteriorated large-diameter or high-risk culverts that are not part of larger roadway or infrastructure projects.

In 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	86,600		116,100	41,300	82,300	123,600	58,300	508,200
Construction / Implementation		981,000	2,159,300	1,375,200	311,700	621,400	1,167,000	6,615,600
Property/Equip. Acquisition								0
Other-Debt Issuance		7,000	17,600	11,500	3,000	5,000	9,700	53,800
TOTAL	\$86,600	\$988,000	\$2,293,000	\$1,428,000	\$397,000	\$750,000	\$1,235,000	\$7,177,600

FINANCIAL PLAN

FUNDING								
Current Revenue	86,600							86,600
Capital Reserve								0
Debt Funded		988,000	2,293,000	1,428,000	397,000	750,000	1,235,000	7,091,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$86,600	\$988,000	\$2,293,000	\$1,428,000	\$397,000	\$750,000	\$1,235,000	\$7,177,600

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Stormwater Channel Maintenance Program

Project Number: TBD

Physical Location: Various Locations

Type: New Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The City is responsible to maintain approximately 33 miles of stream channels, basins and flood control facilities. As a fundamental component of the City's open stormwater system, it is critical to maintain the design flow of these facilities. Maintenance and repair work includes debris removal, improved access, bank repair/stabilization, sediment removal, and invasive species control. The initial year is intended for project scoping, design and permitting. The program is intended to restore design flow over the entirety of the City's 33-mile system. This will address approximately 8 miles per year over 4 years using private contractors, and then morph into an ongoing maintenance program using a combination of in-house workforce and private contractors. The cost figures will be refined after the total scope is determined.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			100,000					100,000
Construction / Implementation				200,000	200,000	200,000	200,000	800,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$100,000	\$200,000	\$200,000	\$200,000	\$200,000	\$900,000

FINANCIAL PLAN

FUNDING								
Current Revenue			100,000	200,000	200,000	200,000	200,000	900,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$100,000	\$200,000	\$200,000	\$200,000	\$200,000	\$900,000

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Stormwater Spot Repairs Program

Project Number: 90022 / 75M0008
 Physical Location: Various
 Type: Ongoing Program
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

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

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



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	73,000	75,200	77,500	79,800	82,200	84,700	87,200	559,600
Property/Equip. Acquisition								0
Other								0
TOTAL	\$73,000	\$75,200	\$77,500	\$79,800	\$82,200	\$84,700	\$87,200	\$559,600

FINANCIAL PLAN

FUNDING								
Current Revenue	73,000	75,200	77,500	79,800	82,200	84,700	87,200	559,600
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$73,000	\$75,200	\$77,500	\$79,800	\$82,200	\$84,700	\$87,200	\$559,600

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Stormwater System Analysis Program

Project Number: 90193 / 75M0010

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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. 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.

In recent years, the City has under-spent the funds appropriated under this program. Therefore, no additional funding is requested until FY 26.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design				40,000	41,200	42,400	43,700	167,300
Construction / Implementation								0
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$0	\$40,000	\$41,200	\$42,400	\$43,700	\$167,300

FINANCIAL PLAN

FUNDING								
Current Revenue				40,000	41,200	42,400	43,700	167,300
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$40,000	\$41,200	\$42,400	\$43,700	\$167,300

STORMWATER MAIN LINING PROGRAM

The table below outlines approximate priorities and costs for the stormwater main lining program

Year	Location	Objective and Scope of Work	2021 Estimated Cost⁽¹⁾	Inflation Adjustment	Implementation Year Expenditures⁽²⁾	Expenditure Type
2023	Woodbury Street	Survey and permitting for Woodbury St. stormwater lining.	\$ 5,900	\$ 359	\$ 6,300	Design
2023	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.	\$ 130,300	\$ 7,935	\$ 138,200	Construction
2024	Maple Avenue	Survey and permitting for Maple Ave. stormwater lining.	\$ 8,400	\$ 779	\$ 9,200	Design
2024	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.	\$ 196,500	\$ 18,221	\$ 214,700	Construction
2025	Emerald Street Phase 1	Survey and permitting for Emerald St. stormwater lining.	\$ 13,300	\$ 1,669	\$ 15,000	Design
2025	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.	\$ 159,200	\$ 19,981	\$ 179,200	Construction
2026	Emerald Street Phase 2	Line the existing drainage pipes between Ralston St. and Wilson St.	\$ 147,000	\$ 23,413	\$ 170,400	Construction
2027	TBD		\$ 150,000	\$ 29,108	\$ 179,100	Construction
2028	TBD		\$ 150,000	\$ 34,481	\$ 184,500	Construction
2029	TBD		\$ 150,000	\$ 40,016	\$ 190,000	Construction

Notes:

(1) Costs include funding for survey and permitting (where required), and construction oversight.

(2) Costs include an assumed inflation rate of 3% between estimate year and construction year

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Stormwater Main Lining Program

Project Number: TBD

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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 today would be over \$22 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.

This program allows for metal pipes that have not yet completely rusted through to be lined with a "cured-in-place" pipe. This is the same technology that has been used successfully on our sewer mains for many years.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	6,300	9,200	15,000					30,500
Construction / Implementation	138,200	214,700	179,200	170,400	179,100	184,500	190,000	1,256,100
Property/Equip. Acquisition								0
Other								0
TOTAL	\$144,500	\$223,900	\$194,200	\$170,400	\$179,100	\$184,500	\$190,000	\$1,286,600

FINANCIAL PLAN

FUNDING								
Current Revenue	144,500	223,900	194,200	170,400	179,100	184,500	190,000	1,286,600
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$144,500	\$223,900	\$194,200	\$170,400	\$179,100	\$184,500	\$190,000	\$1,286,600

2023 - 2029 Capital Project Funding Request Public Works



GENERAL PROJECT DATA

Project/Program: Salt Shed Replacement

Project Number: 90002 / 75J0024
 Physical Location: 560 Main Street
 Type: Multiphase Project
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

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

Departmental Objective: Maintain critical infrastructure



PROJECT/PROGRAM 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 (planned to be located on City owned property at 560 Main Street). 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 was partially funded (\$249,081) from the sale of the 560 Main Street property in the FY21 and FY22 Capital Improvement Plans.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	436,319							436,319
Property/Equip. Acquisition								0
Other-Debt Issuance	2,681							2,681
TOTAL	\$439,000	\$0	\$0	\$0	\$0	\$0	\$0	\$439,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded	439,000							439,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$439,000	\$0	\$0	\$0	\$0	\$0	\$0	\$439,000

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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.

The City of Keene's parking spaces, parking lots, and parking garage are intended to provide reasonable access to businesses and properties, making it critical to businesses that cannot provide their own on-site parking. The utility of parking assets have changed throughout the years from mainly providing visitors with convenient access to businesses to the current need of residents, workers, and visitors all needing access to the Downtown Corridor for differing reasons. Without public parking, these needs cannot be met and downtown Keene would not be viable or the regional economic engine that it is. Effective parking management continually assesses these needs and moves vehicles in a way that keeps an open supply of spaces for customers to access businesses, and residents and workers to access safe parking for longer time periods. Effective management also contributes to the City Council's goals by providing support to the diverse needs of Keene's residents and visitors, evaluating evolving technologies to support environmental goals, and minimizing the property tax payer's burden, to name a few.

Funding to support parking management is derived from metered and pay-station parking spaces, permits from reserved parking spaces, and fines and forfeits. The Parking Services Department manages over 1,300 spaces, nine lots, and one parking garage. In FY20 nearly 60,000 customers parked at metered on-street spaces, 9,500 at metered parking lot spaces, 307 reserved spaces, and 159 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

2023 - 2029 Capital Improvement Program Summary

Project Name	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
CR Appropriation: City Hall Parking Facility	\$ 30,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 225,000
CR Appropriation: Wells Street Parking Facility	30,000	30,000	30,000	30,000	30,000	30,000	30,000	210,000
City Hall Parking Structure Maint Program	-	57,400	32,700	218,000	-	-	-	308,100
EV Charging Stations Project	-	-	167,860	-	-	-	-	167,860
Pay Stations Project	-	125,000	-	-	-	-	-	125,000
Surface Lot Maintenance Program	-	-	53,000	-	-	50,000	-	103,000
Wells Street Parking Structure Maint Program	678,800	-	-	-	-	-	-	678,800
West Side Downtown Parking Structure	216,000	-	871,000	-	9,798,000	-	-	10,885,000
TOTAL CAPITAL PROGRAM	\$ 954,800	\$ 247,400	\$ 1,189,560	\$ 283,000	\$ 9,858,000	\$ 110,000	\$ 60,000	\$ 12,702,760

PROJECT FUNDING DETAIL

Reserve Funded Projects

City Hall Parking Structure Maint Program	\$ -	\$ 57,400	\$ 32,700	\$ 218,000	\$ -	\$ -	\$ -	\$ 308,100
Wells Street Parking Structure Maint Program	155,800	-	-	-	-	-	-	155,800
Total: Reserve Funded Projects	\$ 155,800	\$ 57,400	\$ 32,700	\$ 218,000	\$ -	\$ -	\$ -	\$ 463,900

Projects Funded with Debt

Wells Street Parking Structure Maint Program	\$ 523,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 523,000
West Side Downtown Parking Structure	-	-	871,000	-	9,798,000	-	-	10,669,000
Total: Projects Funded with Debt	\$ 523,000	\$ -	\$ 871,000	\$ -	\$ 9,798,000	\$ -	\$ -	\$ 11,192,000

Capital Reserve Appropriations

Capital Reserve: City Hall Parking Facility	\$ 30,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 225,000
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	\$ 65,000	\$ 65,000	\$ 65,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 435,000

Projects Funded with Cash

EV Charging Stations Project	\$ -	\$ -	\$ 167,860	\$ -	\$ -	\$ -	\$ -	\$ 167,860
Pay Stations Project	-	125,000	-	-	-	-	-	125,000
Surface Lot Maintenance Program	-	-	53,000	-	-	50,000	-	103,000
West Side Downtown Parking Structure	216,000	-	-	-	-	-	-	216,000
Total: Projects Funded with Cash	\$ 216,000	\$ 125,000	\$ 220,860	\$ -	\$ -	\$ 50,000	\$ -	\$ 611,860

Subtotal: Uses of Cash	\$ 276,000	\$ 190,000	\$ 285,860	\$ 65,000	\$ 60,000	\$ 110,000	\$ 60,000	\$ 1,046,860
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(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM	\$ 954,800	\$ 247,400	\$ 1,189,560	\$ 283,000	\$ 9,858,000	\$ 110,000	\$ 60,000	\$ 12,702,760
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New Cash Requirement FY 23-29: Reconciliation

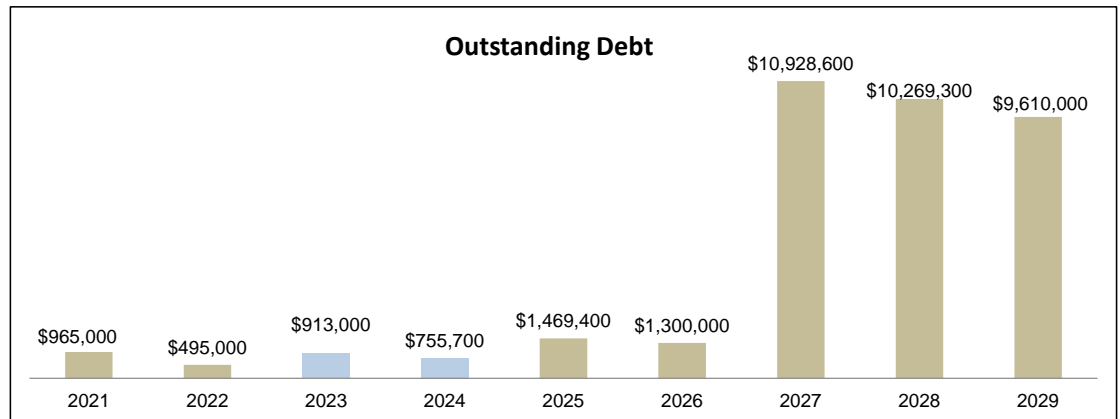
Total: Uses of Cash	\$ 276,000	\$ 190,000	\$285,860	\$65,000	\$60,000	\$110,000	\$60,000	\$1,046,860
Use of Retained Earnings/Project Balance	-	-	-	-	-	-	-	-
New Funds Needed	\$ 276,000	\$ 190,000	\$285,860	\$65,000	\$60,000	\$110,000	\$60,000	\$1,046,860

Parking Fund

2023 - 2029 CIP Debt Summary

	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Existing Debt	\$495,000	\$913,000	\$755,700	\$1,469,400	\$1,300,000	\$10,928,600	\$10,269,300
Authorized Not Issued	-	-	-	-	-	-	-
New Issues Proposed	523,000	-	871,000	-	9,798,000	-	-
Principal Paid	(105,000)	(157,300)	(157,300)	(169,400)	(169,400)	(659,300)	(659,300)
Total Existing Debt & Issues Proposed	\$913,000	\$755,700	\$1,469,400	\$1,300,000	\$10,928,600	\$10,269,300	\$9,610,000

	Issue	Term	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Existing & Authorized Debt Service (P & I)			\$115,968	\$112,560	\$109,152	\$32,244	\$31,836	\$31,428	\$31,020
Proposed Debt Service CIP FY23									
Wells Street Parking Structure Maint	523,000	10	8,499	68,448	66,748	65,048	63,348	61,649	59,949
Proposed Debt Service CIP FY24									
N/A									
Proposed Debt Service CIP FY25									
West Side Downtown Parking Structure	871,000	10			14,154	113,992	111,161	108,331	105,500
Proposed Debt Service CIP FY26									
N/A									
Proposed Debt Service CIP FY27									
West Side Downtown Parking Structure	9,798,000	20					159,218	800,374	784,452
Proposed Debt Service CIP FY28									
N/A									
Proposed Debt Service CIP FY29									
N/A									
Total CIP 23-29 Debt Service Proposed			8,499	68,448	80,902	179,040	333,727	970,353	949,901
Total Projected Debt Service: Parking Fund			\$124,467	\$181,008	\$190,054	\$211,284	\$365,563	\$1,001,781	\$980,921



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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
City Hall Structure Maintenance Program		(57,400)	(32,700)	(218,000)			
Total Expenditures	\$0	(\$57,400)	(\$32,700)	(\$218,000)	\$0	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	30,000	35,000	35,000	35,000	30,000	30,000	30,000
Estimated Investment Earnings	305	272	276	2	47	92	137
Total Receipts	\$30,305	\$35,272	\$35,276	\$35,002	\$30,047	\$30,092	\$30,137
Estimated End of Year Reserve Balance							
	\$203,852	\$181,724	\$184,300	\$1,302	\$31,349	\$61,441	\$91,578

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Wells Structure Maintenance Program	(155,800)						
Total Expenditures	(\$155,800)	\$0	\$0	\$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	175	221	266	311	357	403	448
Total Receipts	\$30,175	\$30,221	\$30,266	\$30,311	\$30,357	\$30,403	\$30,448
Estimated End of Year Reserve Balance							
	\$117,071	\$147,292	\$177,558	\$207,869	\$238,226	\$268,629	\$299,077

Parking Fund

2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL FY20/21	BUDGET FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27	PROJECTED FY27/28	PROJECTED FY28/29
REVENUES									
Taxes* - Tax Increment Financing	\$534,749	\$545,108	\$154,467	\$211,008	\$220,054	\$241,284	\$395,563	\$1,031,781	\$1,010,921
Parking Meter Fees / Space Rentals	574,595	686,942	707,550	728,777	750,640	773,159	796,354	820,245	844,852
Fines & Forfeits	208,993	271,200	279,336	287,716	296,348	305,238	314,395	323,827	333,542
Miscellaneous	16,429	15,837	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Capital reserve / Project Balances		95,061	155,800	57,400	32,700	218,000			
Use of (Addition to) Surplus		(21,299)							
Courthouse Payment	12,797	16,734	16,734	16,530	16,326	16,122	15,918	15,714	15,510
Bond Issue		16,938	523,000	871,000			9,798,000		
TOTAL REVENUES	\$1,347,563	\$1,609,787	\$1,848,887	\$1,313,431	\$2,199,068	\$1,565,803	\$11,332,230	\$2,203,567	\$2,216,825
EXPENDITURES									
Lots & Meters	\$513,747	\$617,171	\$632,600	\$648,415	\$664,626	\$681,241	\$698,272	\$715,729	\$733,622
Outside Services	232,831	241,183	247,213	253,393	259,728	266,221	272,876	279,698	286,691
City Hall Parking Facility	17,439	21,976	22,525	23,089	23,666	24,257	24,864	25,485	26,123
Wells Street Parking Facility	28,646	33,245	34,076	34,928	35,801	36,696	37,614	38,554	39,518
Capital	94,045	206,361	954,800	247,400	1,189,560	283,000	9,858,000	110,000	60,000
Property Taxes: Courthouse			124,467	181,008	190,054	211,284	365,563	1,001,781	980,921
Debt Service-TIFD	498,769	489,851							
TOTAL EXPENDITURES	\$1,385,476	\$1,609,787	\$2,015,681	\$1,388,233	\$2,363,434	\$1,502,700	\$11,257,189	\$2,171,248	\$2,126,875
Addition to (use of) Surplus	(\$37,914)	\$0	(\$166,794)	(\$74,802)	(\$164,367)	\$63,103	\$75,041	\$32,319	\$89,950

Projected Fund Balance End of Year \$339,390 \$360,689 \$193,895 \$119,093 (\$45,274) \$17,830 \$92,871 \$125,189 \$215,140

*Note on Taxes: Wells Street Tax Increment Financing District (TIFD) revenues are raised to pay for the following TIFD expenditures:

Debt Service-including debt issued for proposed parking garage	\$124,467	\$181,008	\$190,054	\$211,284	\$220,054	\$241,284	\$365,563	\$1,001,781	\$980,921
Wells Street Parking Facility Capital Reserve	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
TIFD Taxes to be Raised for Parking Fund	\$154,467	\$211,008	\$220,054	\$241,284	\$241,284	\$241,284	\$395,563	\$1,031,781	\$1,010,921

2023 - 2029 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project/Program: Surface Parking Lot Maintenance Program

Project Number: 90327 / 22M0002

Physical Location: Various

Type: Ongoing Program

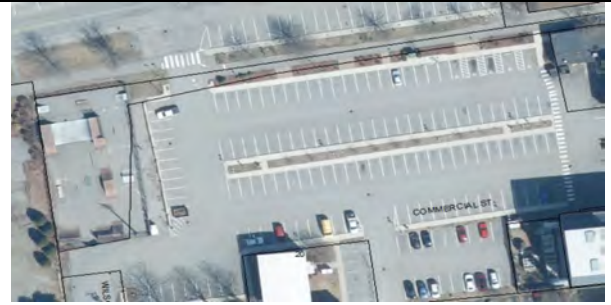
Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown, Economic Development, and Infrastructure

Departmental Objective: Maintaining critical infrastructure



PROJECT/PROGRAM 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 for preservation, maintenance, repair and reconstruction activities to maintain the lots conditions and function.

Funds budgeted within this Capital Improvement Program period are to perform crack sealing and surface sealing on the Library Annex, Elm Street, Wells Street/Roxbury Plaza, and Gilbo East lots in FY25. When the work is scheduled the pavement in these lots will range from 7 years old to 10 years old.

In addition, funds are requested in FY28 to repair or replace parking lot amenities, such as landscaping, lighting, pay stations, etc.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			53,000			50,000		103,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$53,000	\$0	\$0	\$50,000	\$0	\$103,000

FINANCIAL PLAN

FUNDING								
Current Revenue			53,000			50,000		103,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$53,000	\$0	\$0	\$50,000	\$0	\$103,000

2023 - 2029 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project/Program: City Hall Parking Structure
Maintenance Program

Project Number: 90081 / 22J0004

Physical Location: Main Street

Type: Ongoing Program

Capital Reserve (Wholly or In Part): City Hall Parking Deck - page 109

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

Departmental Objective: Maintaining critical infrastructure



PROJECT/PROGRAM 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 preservation, maintenance, and repair activities to maintain and 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.

In FY 26, thirteen years will have passed since the most recent structural repair project was completed on the Wells St. garage. Although minor repairs have been completed since that time, more significant work is required. New concrete cracks and spalls have also appeared. Funds are requested in FY25 for design and FY26 for construction. The scope of this project is expected to include:

- Replacement of an expansion joint on the ramp
- Repair / Replacement of an access door and metal stairway
- Replacement of steel bearing pads
- Re-painting all structural steel
- Lighting Upgrades
- Drainage improvements
- Misc. concrete spall and crack repairs

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			32,700					32,700
Construction / Implementation		57,400		218,000				275,400
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$57,400	\$32,700	\$218,000	\$0	\$0	\$0	\$308,100

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve		57,400	32,700	218,000				308,100
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$57,400	\$32,700	\$218,000	\$0	\$0	\$0	\$308,100

2023 - 2029 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project/Program: EV Charging Stations - Parking Facilities

Project Number: TBD

Physical Location: TBD

Type: New One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Community Sustainability, Green Infrastructure, Renewable Energy and Efficient Use of Resources, Vibrant Downtown

Departmental Objective: Execute Parking Strategic Plan, further goals of Sustainable Energy Plan



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The popularity of electric vehicles is increasing and car manufacturers are debuting many new models of electric vehicles. This is creating a need for electric vehicle (EV) chargers in strategic locations that allow consumers to have easy access. Electric vehicle chargers require an increase in electrical output and changes in localized infrastructure to support the charging stations. There are several types of EV charging stations available, but to serve the needs of the community in the most efficient way, level two and level three commercial-grade chargers will need to be installed. An estimated 5 dual-charging stations will be located throughout different City parking locations.

One dual-charging station was installed in Commercial Lot in 2015 and its use has increased year-over-year. The use in the first half of 2021 exceeded the entire usage in 2020 and was double that of the use in 2019. The projected cost of five commercial-grade, dual charging stations and the supporting infrastructure upgrades and changes is approximately \$167,860, including design work (2021 cost).

The City promotes green energy and conservation; the opportunity to reduce the community's carbon footprint and strive toward the City's carbon neutral goals allows us an opportunity for residents and visitors of Keene to charge their electric vehicles and work to that goal.

With the introduction of new infrastructure, there will be an increase in operational cost. The cost for the electricity will either be built into the rate for the use of the spaces or absorbed into the operating budget. There will be maintenance cost increases for service contracts to maintain the charging systems in operational condition and eventually replace them.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			22,000					22,000
Construction / Implementation			145,860					145,860
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$167,860	\$0	\$0	\$0	\$0	\$167,860

FINANCIAL PLAN

FUNDING								
Current Revenue			167,860					167,860
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$167,860	\$0	\$0	\$0	\$0	\$167,860

2023 - 2029 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project/Program: Wells Street Parking Structure Maintenance Program

Project Number: 90041 / 22J0002

Physical Location: Wells Street

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Wells Street Parking Deck -page 110

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Vibrant Downtown

Departmental Objective: Maintaining critical infrastructure



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The Wells Street Parking Facility was constructed and became operational in 1998. 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 preservation, maintenance, and repair activities to extend the life of the Wells Street parking structure

The City has an Operations and Maintenance Plan for the structure. This plan identifies items that should be addressed periodically to maintain the structure in an adequate conditions. Items that require continued assessment and maintenance include the joints between the T-members, the upper deck waterproofing membrane, the concrete T-members and the various other components.

In the summer of 2021, several pieces of concrete broke off of the structural concrete members and fell onto cars below. A structural engineer evaluated the garage and determined the overall safety of the garage is not compromised. However, repairs are needed to prevent further deterioration. Therefore, a significant repair project has been added to the program in FY 23. The work is expected to include repairing damaged concrete, replacing failed joint sealant and restoring the waterproofing membrane.

Prior year CIP projects have been adjusted to include:
 FY23 - \$98,200 - lower level asphalt paving
 FY23 - \$576,000 - structural repairs (moved from FY27 and FY28)

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	57,600							57,600
Construction / Implementation	616,600							616,600
Property/Equip. Acquisition								0
Other - Debt Issuance	4,600							4,600
TOTAL	\$678,800	\$0	\$0	\$0	\$0	\$0	\$0	\$678,800

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	155,800							155,800
Debt Funded	523,000							523,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$678,800	\$0	\$0	\$0	\$0	\$0	\$0	\$678,800

2023 - 2029 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project/Program: Pay Stations Project

Project Number: TBD

Physical Location: TBD

Type: New One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Vibrant Economy

CMP Vision/Strategy: Economic Development, Community Sustainability, Vibrant Downtown

Departmental Objective: Modernizing by investing in infrastructure and parking services that expand payment choices to support a vibrant downtown. Allows for increased access on sidewalks and beautification of the Downtown area. Execute Strategic Plan



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

Pay stations provide a versatile, low-maintenance alternative to traditional mechanical meters and smart meters. They allow for more free space on sidewalks by replacing existing meters, which allows business owners and visitors to use the space in varying ways. They service larger parking areas which allows for use in many locations. The pay stations offer the option of cash and credit card payments, which adds more option to users than just coin mechanisms alone. Several pay stations have been in use for the last few years in several City lots and garages and have worked with few issues to users.

Pay stations are pay-by-plate orientated, so it provides a user-friendly option to pay parking fees and also decreases signage and markers that would otherwise be used on sidewalks and streets. Pay stations communicate through a cellular network and the information is uploaded and accessed by Parking Service Officers simultaneously, which aids in enforcement measures. It also allows Parking Services to track usage in different areas in the City, so that service to the public can be adjusted, if needed. 15 pay stations are needed to cover the Downtown core areas that are suitable for pay stations. This will replace about 225 meters, assuming one station for approximately 15 spaces. Generally, pay stations will be placed on the Main Street and Central Square sections of Downtown. Other placement areas outside of Main Street and Central Square include Railroad Street, Gilbo Avenue, and Library parking lot. The other Downtown areas that will not have a pay station will be evaluated for suitability for pay-by-app and areas that the electro-mechanical meters can remain. Approximately 200 meters will remain in various places in the Downtown area and the others will be converted to pay-by-app only.

The total year one cost is approximately \$125,000. The year two ongoing operational cost decreases significantly and includes hardware warranty, gateway and communication fees, amounting to about \$17,500 per year. Replacing meters with pay stations allows for additional meter inventory, for parts and replacement where meters will remain. Meters are no longer replaceable without parking fee management alternatives. The pay stations allow for adaptability in the City and provide parking options to the diverse residents and visitors who enjoy the Downtown area. This also allows the Parking Fund to be self-funding and decrease the impact to tax payers. The pay stations also run on solar power, which is crucial to ongoing environmental efforts to reduce the community's carbon footprint.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition		125,000						125,000
Other								0
TOTAL	\$0	\$125,000	\$0	\$0	\$0	\$0	\$0	\$125,000

FINANCIAL PLAN

FUNDING								
Current Revenue		125,000						125,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$125,000	\$0	\$0	\$0	\$0	\$0	\$125,000

2023 - 2029 Capital Project Funding Request Parking Fund



GENERAL PROJECT DATA

Project/Program: West Side Downtown Parking Structure Project

Project Number: TBD
 Physical Location: TBD
 Type: New Multiphase Project
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality built environment
 CMP Vision/Strategy: Vibrant downtown, walkable community, transportation, infrastructure, economic development

Departmental Objective: Execute Parking Strategic Plan



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The City has a vibrant downtown area. It is the hub for the City's economic activities and for the Monadnock Region for commercial, entertainment, and community events. The City and community in the last decade have invested significant public and private funds in residential activities (Washington Heights), upgraded and added additional entertainment capacity (Colonial Theater), commercial activities (Monadnock Co-Op, Marriot Court Yard), along with services (the hospital added a satellite dermatology clinic). Finally, in 2021, the City adopted a new zoning designation that encourages mix use (commercial, office, residential) in a denser pattern and maintaining the responsibility for the provision of providing parking for these activities to the public sector.

All the recent activities have placed parking in demand. It is anticipated this demand will only increase if property owners and developers use the new zoning regulations. The downtown has a mix of demands for parking. Traditionally parking was seen to support retail activities and small businesses. As the Downtown has grown and activities have shifted the demand for parking has shifted towards large events (800-seat Colonial Theater), to support downtown community activities (Music Fest, Art Walk, etc.), restaurants, non-retail commercial activities, employee parking, and for a growing residential population. This unique blend does not have a single solution to address all the needs.

There have been three primary areas that have been identified for a parking structure: Main Street America Lot near School Street, the City's Gilbo East Surface Lot area, and the Commercial Street Surface Lot area. This project over several years will review parking demand, assess the available site, identify an economically viable size of structure, move through design and then construction. The estimate is based on a 400 vehicle parking structure. With the construction of a new asset additional operational cost will be required to support the new asset. These cost will include additional equipment and staff.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	216,000		864,000		9,720,000			10,800,000
Construction / Implementation								0
Property/Equip. Acquisition								0
Other - Debt Issuance			7,000		78,000			85,000
TOTAL	\$216,000	\$0	\$871,000	\$0	\$9,798,000	\$0	\$0	\$10,885,000

FINANCIAL PLAN

FUNDING								
Current Revenue	216,000							216,000
Capital Reserve								0
Debt Funded			871,000		9,798,000			10,669,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$216,000	\$0	\$871,000	\$0	\$9,798,000	\$0	\$0	\$10,885,000

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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 Fund TOC	119
Solid Waste CIP Overview & Summary	120-121
Solid Waste Fund Debt Summary	122
Solid Waste Capital Reserve	
Transfer/Recycling Center Capital Reserve	123
Solid Waste Fund Multi-Year Projections	124
Solid Waste Fund Projects	
• Recycling Equipment Replacement Program	125
• Weight Scale Replacement Project	126
• Refurbish Facility Interior Project	127
• Pavement Replacement Project	128
• Upper Level Pavement Project	129

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 managing solid 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. Private contractors perform residential collection services under a permit system administered by the City. Private contractors perform commercial collection services, 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 the City 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 recycle materials/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 and its operations and the Division works with the Finance Department to refine the business model to enable the operation to continue to be funded outside of the tax base. The Solid Waste Division operates eight cost centers with revenues and expenses in excess of \$4.1M.

The Keene Transfer Station processes over 30,000 tons of solid waste (approximately 21,000 tons from Keene) and the Keene Recycling Center sorts over 6,000 tons of recyclable material per year (predominately from Keene residents and businesses). 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

2023 - 2029 Capital Improvement Program Summary

Project Name	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
CR Appropriation: Recycling/Transfer Facility	\$ 125,000	\$ 125,000	\$ 150,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 900,000
Pavement Replacement Project	-	-	200,340	-	-	-	-	200,340
Recycling Equipment Replacement Program	75,000	-	50,000	-	-	75,000	-	200,000
Refurbish Facility Interior Project	175,000	-	-	-	-	-	-	175,000
Upper Level Pavement Project	-	-	-	-	-	236,000	-	236,000
Weight Scale Replacement Project	-	-	100,700	-	-	-	-	100,700
TOTAL CAPITAL PROGRAM	\$ 375,000	\$ 125,000	\$ 501,040	\$ 125,000	\$ 125,000	\$ 436,000	\$ 125,000	\$ 1,812,040

PROJECT FUNDING DETAIL

Reserve Funded Projects

Pavement Replacement Project	\$ -	\$ -	\$ 200,340	\$ -	\$ -	\$ -	\$ -	\$ 200,340
Recycling Equipment Replacement Program	75,000	-	50,000	-	-	75,000	-	200,000
Refurbish Facility Interior Project	175,000	-	-	-	-	-	-	175,000
Upper Level Pavement Project	-	-	-	-	-	236,000	-	236,000
Weight Scale Replacement Project	-	-	100,700	-	-	-	-	100,700
Total: Reserve Funded Projects	\$ 250,000	\$ -	\$ 351,040	\$ -	\$ -	\$ 311,000	\$ -	\$ 912,040

Projects Funded with Debt

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

Capital Reserve Appropriations

Capital Reserve: Recycling/Transfer Facility	\$ 125,000	\$ 125,000	\$ 150,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 900,000
Total: Capital Reserve Appropriations	\$ 125,000	\$ 125,000	\$ 150,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 900,000

Projects Funded with State Grant

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

Projects Funded with Cash

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

Subtotal: Uses of Cash (Capital Reserve Appropriations plus Projects Funded with Cash)	\$ 125,000	\$ 125,000	\$ 150,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 900,000
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TOTAL CAPITAL PROGRAM	\$ 375,000	\$ 125,000	\$ 501,040	\$ 125,000	\$ 125,000	\$ 436,000	\$ 125,000	\$ 1,812,040
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New Cash Requirement FY 23-29: Reconciliation

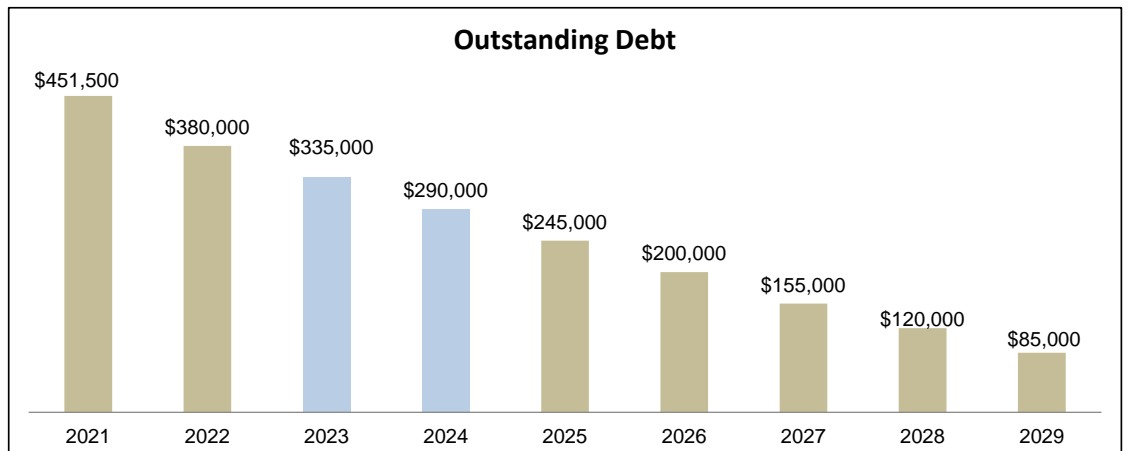
Total: Uses of Cash	\$ 125,000	\$ 125,000	\$ 150,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 900,000
Use of Retained Earnings/Project Balance	-	-	-	-	-	-	-	-
New Funds Needed	\$ 125,000	\$ 125,000	\$ 150,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 900,000

Solid Waste Fund

2023 - 2029 CIP Debt Summary

	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
Existing Debt	\$380,000	\$335,000	\$290,000	\$245,000	\$200,000	\$155,000	\$120,000
Authorized Not Issued	-	-	-	-	-	-	-
New Issues Proposed	-	-	-	-	-	-	-
Principal Paid	(45,000)	(45,000)	(45,000)	(45,000)	(45,000)	(35,000)	(35,000)
Total Existing Debt & Issues Proposed	<u>\$335,000</u>	<u>\$290,000</u>	<u>\$245,000</u>	<u>\$200,000</u>	<u>\$155,000</u>	<u>\$120,000</u>	<u>\$85,000</u>

	<u>Issue</u>	<u>Term</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
Existing & Authorized Debt Service (P & I)			\$57,400	\$55,585	\$53,770	\$51,955	\$50,140	\$38,525	\$37,110
<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									
<u>Proposed Debt Service CIP FY28</u>									
N/A									
<u>Proposed Debt Service CIP FY29</u>									
N/A									
Total CIP 23-29 Debt Service Proposed			0	0	0	0	0	0	0
Total Projected Debt Service: Solid Waste Fund			\$57,400	\$55,585	\$53,770	\$51,955	\$50,140	\$38,525	\$37,110



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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Facility Interior Improvements	(175,000)		(200,340)				
Facility Pavement Replacement			(50,000)			(75,000)	
Recycling Equipment Replacement	(75,000)		(100,700)			(236,000)	
Upper Level Pavement							
Weight Scale Replacement							
Total Expenditures	(\$250,000)	\$0	(\$351,040)	\$0	\$0	(\$311,000)	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	125,000	125,000	150,000	125,000	125,000	125,000	125,000
Estimated Investment Earnings	129	316	15	203	391	112	300
Total Receipts	\$125,129	\$125,316	\$150,015	\$125,203	\$125,391	\$125,112	\$125,300
Estimated End of Year Reserve Balance							
	\$85,918	\$211,234	\$10,209	\$135,412	\$260,803	\$74,915	\$200,215

Solid Waste Fund

2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL FY20/21	BUDGET FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27	PROJECTED FY27/28	PROJECTED FY28/29
REVENUES									
Charges for Services	\$5,094,780	\$4,601,291	\$5,247,623	\$5,405,052	\$5,540,178	\$5,678,682	\$5,792,256	\$5,908,101	\$6,026,263
Other Financing Sources	35,420	1,000	35,000	27,500	20,000	20,000	20,000	20,000	20,000
Use of Surplus		(170,216)							
Bond Issue									
Capital Reserve		75,000	250,000		351,400			311,000	
Miscellaneous	225								
TOTAL REVENUES	\$5,130,425	\$4,507,075	\$5,532,623	\$5,432,552	\$5,911,578	\$5,698,682	\$5,812,256	\$6,239,101	\$6,046,263
EXPENDITURES									
Management/Admin.	\$682,169	\$639,715	\$699,223	\$716,704	\$731,038	\$745,659	\$760,572	\$775,783	\$791,299
Transfer/Recycling Facility	215,187	159,922	220,567	226,081	230,602	235,214	239,919	244,717	249,611
Landfill / Operations	3,025,829	2,399,120	3,096,936	3,195,108	3,280,418	3,362,428	3,429,677	3,498,270	3,568,236
Recycling	620,575	622,086	636,089	651,991	665,031	681,657	697,540	714,978	731,637
Household Hazardous Waste	25,303	94,799	25,935	26,584	27,116	27,658	28,211	28,775	29,351
Demolition Transfer/Disposal	172,395	167,628	176,705	181,123	184,745	188,440	192,209	196,053	199,974
Landfill Monitoring	49,111	59,500	50,338	51,597	52,629	53,681	54,755	55,850	56,967
Landfill Gas System	97,314	125,420	185,942	190,590	194,402	198,290	202,256	206,301	210,427
Debt Service	75,421	86,885	57,400	55,585	53,770	51,995	50,140	38,525	37,110
SUBTOTAL	\$4,963,304	\$4,355,075	\$5,149,135	\$5,295,363	\$5,419,751	\$5,545,023	\$5,655,278	\$5,759,253	\$5,874,612
CAPITAL	70,000	152,000	375,000	125,000	501,040	125,000	125,000	436,000	125,000
TOTAL EXPENDITURES	\$5,033,304	\$4,507,075	\$5,524,135	\$5,420,363	\$5,920,791	\$5,670,023	\$5,780,278	\$6,195,253	\$5,999,612
NET REVENUE (EXPENSE)	\$97,121	\$0	\$8,488	\$12,188	\$9,213	-\$28,660	-\$31,978	\$43,848	\$46,651
<i>Projected Fund Balance End of Year</i>	\$2,748,100	\$2,918,316	\$2,926,804	\$2,938,992	\$2,948,205	\$2,919,546	\$2,887,567	\$2,931,415	\$2,978,066

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.

2023 - 2029 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project/Program: Recycling Equipment Replacement Program

Project Number: 90069 / 21M0002

Physical Location: 55 Old Summit Road

Type: Ongoing Program

Capital Reserve (Wholly or In Part): **Transfer/Recycle Facility - page 123**

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

Departmental Objective: Continued diversion of the waste stream through recycling



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The Keene Recycling Center is 27 years old. Effective and efficient operations is dependent on the operations of the various pieces of equipment that support the sorting and separation processes or the Recycling Center. This equipment includes and not limited to the paper and cardboard balers, cross belt magnetic separator, eddy current separator, infeed conveyor and sorting belts. 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 in FY23 the infeed conveyor, and sorting line belts will need to be replaced and the motors rebuilt. The cross belt magnet and eddy current separator may require replacement within several years (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). The FY25 and FY28 expenditures are estimated replacement timeframes and maybe adjusted as equipment is periodically evaluated.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition	75,000		50,000			75,000		200,000
Other								0
TOTAL	\$75,000	\$0	\$50,000	\$0	\$0	\$75,000	\$0	\$200,000

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve	75,000		50,000			75,000		200,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$75,000	\$0	\$50,000	\$0	\$0	\$75,000	\$0	\$200,000

2023 - 2029 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project/Program: Weight Scale Replacement

Project Number: TBD

Physical Location: 55 Old Summit Road

Type: One-time Project

Capital Reserve (Wholly or In Part): Transfer/Recycle Facility - page 123

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM 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 is the estimated period in which the scales are projected to be replaced. As the scales are periodically evaluated their replacement maybe moved out.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			5,000					5,000
Construction / Implementation			95,700					95,700
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$100,700	\$0	\$0	\$0	\$0	\$100,700

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			100,700					100,700
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$100,700	\$0	\$0	\$0	\$0	\$100,700

2023 - 2029 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project/Program: Refurbish Facility Interior Project

Project Number: 90184 / 21J0002

Physical Location: 55 Old Summit Road

Type: Multiphase Project

Capital Reserve (Wholly or In Part): Transfer/Recycle Facility - page 123

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The Keene Recycling Center/Transfer Station 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 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 in FY 22.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	175,000							175,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$175,000	\$0	\$0	\$0	\$0	\$0	\$0	\$175,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	175,000							175,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$175,000	\$0	\$0	\$0	\$0	\$0	\$0	\$175,000

2023 - 2029 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project/Program: Pavement Replacement

Project Number: TBD

Physical Location: 55 Old Summit Road

Type: One-time Project

Capital Reserve (Wholly or In Part): Transfer/Recycle Facility - page 123

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain safe access to Solid Waste facilities



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The 89,000 square feet of asphalt surfaced areas at the Recycling Center/Transfer Station will be 30 years old in 2024 and are 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 Recycling Center/Transfer Station to provide safe access to the commercial users and the public using the facility. Projections are based on a \$2.00 per square foot cost for 2" mill, shim and overlay in 2021. This figure is inflated by 3% per year for the 2025 project.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			200,340					200,340
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$200,340	\$0	\$0	\$0	\$0	\$200,340

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			200,340					200,340
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$200,340	\$0	\$0	\$0	\$0	\$200,340

2023 - 2029 Capital Project Funding Request Solid Waste Fund



GENERAL PROJECT DATA

Project/Program: Upper Level Pavement Project

Project Number: TBD

Physical Location: 55 Old Summit Road

Type: New One-time Project

Capital Reserve (Wholly or In Part): Transfer/Recycle Facility - page 123

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain safe access to Solid Waste facilities



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The upper level of the Recycling Center/Transfer Station houses the public refuse drop off area, the household hazardous waste center, scrap metal, compost, brush, and appliance disposal. This heavily trafficked area requires constant maintenance of the gravel surfaces and is difficult to clear in the winter, and frequently erodes during heavy rain events. It is estimated that the upper level contains approximately 80,000 square feet of gravel surface area. This project would grade and pave the upper level to improve traffic and safety conditions at the solid waste facility. Projections are based on a \$2.50 per square foot cost for 4" paving in 2021. This figure is inflated by 3% per year for the 2028 project.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation						236,000		236,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$236,000	\$0	\$236,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve						236,000		236,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$236,000	\$0	\$236,000

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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 designed to collect and treat rain or groundwater. The wastewater system handles an average 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 94 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 1800s – 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 26% of Keene's 94-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 122 years.

Collection system improvements proposed through this CIP include correction of significant deficiencies in the sewers within Central Square and on Main Street as part of the Downtown Infrastructure Improvements and Reconstruction Projects. Additionally, funds are included to replace old mains on Island Street and in the George Street and Sullivan Street areas. Shorter lengths of main replacement, in conjunction with the Lower Winchester Reconstruction project.

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.

This CIP includes funds for other components of the collection system including the lining and rehabilitation of over 200 brick manholes.

Sewage may pass through one of four 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 37 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 and address any deficiencies found. 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 CIPs. 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 is currently under construction. In addition, the pump station will receive a new rubber roof that is scheduled to be installed in FY24.

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. Even with significant investments to the WWTP over the past decade there are still many

original components and systems that are in need of repair or replacement. On-going projects include a new roof, emergency generator, sludge pumps, and renovations to the Laboratory.

The 2023-2029 CIP will include projects such as a new HVAC system, plant water system, air compressor, outbuilding and tank maintenance programs and installation of a sludge dryer. This will cost our average sewer customer (approximately 9,625 cuft or 71,995 gallons) of \$809.13 per year (\$67.42 per month. 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.

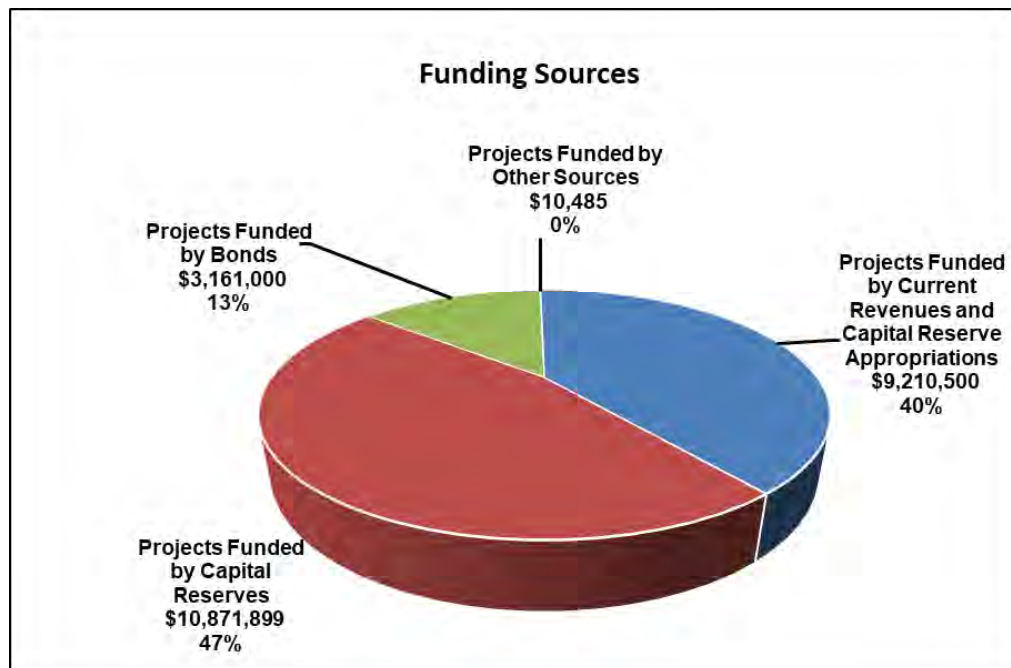
SEWER FUND

The proposed CIP includes several projects for the Sewer Fund. Over the seven-year span of the CIP, the Sewer Fund is proposing \$23,253,884, or 15% of the total CIP, for sewer improvements, infrastructure support, structural repair/lining, facility and equipment upgrades, and manhole lining. As with the General Fund, the Sewer Fund utilizes capital reserve accounts. Annual appropriations are included in the CIP and earmarked as a funding source for future projects.

Funding for the Sewer Fund capital projects will come from several sources. Current revenues will contribute 40%, capital reserves 47%, bonds 13%, and other sources less than 1%.

	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total
FY22/23	\$ 1,100,000	\$ 1,518,893	\$ -	\$ -	\$ -	\$ 2,618,893
FY23/24	1,125,000	1,650,506	0	0	10,485	2,785,991
FY24/25	1,587,500	1,838,800	0	0	0	3,426,300
FY25/26	1,323,000	1,164,100	0	0	0	2,487,100
FY26/27	1,350,000	1,571,300	0	0	0	2,921,300
FY27/28	1,350,000	1,201,900	3,161,000	0	0	5,712,900
FY28/29	1,375,000	1,926,400	0	0	0	3,301,400
TOTAL	\$ 9,210,500	\$ 10,871,899	\$ 3,161,000	\$ -	\$ 10,485	\$23,253,884

Current revenues are derived from sewer rates that are charged to customers using the sewer system and septage disposal from septic haulers. 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 \$23,253,884.

A. Sewer System Highlights

1. Sewer Improvements Program – the program funds the replacement or upgrade of sanitary sewer mains that are not candidates for lining or spot repairs. The seven-year request for projects of this type total \$4,034,600.
2. Sewer Main and Manhole Lining Programs – the Sewer Main Lining Program funds the lining of sewer mains that have adequate capacity but require maintenance due to structural defects. The Sewer Manhole Lining Program will provide funding to rehabilitate over 200 brick manholes throughout the City and beginning in the older, east-side neighborhoods. Project funding for these programs total \$3,509,600.

B. Treatment System Highlights

1. Sludge Pump Replacement – that are more efficient than the pumps originally installed in 1985. This multiphase project began in FY21 and the third and final phase will take place in FY23 with the construction/replacement of all six pumps.
2. Sludge Drier – that will reduce Keene's yearly total of bio-solids to approximately 1500 tons/year or a 67% reduction. FY22 funded a feasibility study, FY25 -\$300,000 -will fund the equipment selection, bid specification and design with construction scheduled in FY28 - \$3,161,000.
3. WWTF Access Road Repaving – resurfacing of the original pavement is scheduled in FY24 with a cost of \$418,600.
4. WWTP Air Compressor Replacement – a new project for the replacement of two original (circa 1985) multi-stage compressors will take place is slated for FY24. A small portion of the project - \$10,485- will be funded with an Eversource rebate.

Sewer Fund

2023 - 2029 Capital Improvement Program Summary

Project Name	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
CR Appropriation: Martell Court	\$ -	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 150,000
CR Appropriation: Sewer Infrastructure	800,000	800,000	900,000	900,000	950,000	950,000	950,000	6,250,000
CR Appropriation: Wastewater Treatment Plant	300,000	300,000	325,000	325,000	375,000	375,000	400,000	2,400,000
Laboratory Instrument & Equip Replace	-	-	-	73,000	-	-	-	73,000
Lower Winchester Infrastructure	-	-	337,500	-	-	-	-	337,500
Martell Court Roof Replacement	-	70,000	-	-	-	-	-	70,000
Sewer Improvements Program	755,600	556,900	738,000	364,900	493,900	491,900	633,400	4,034,600
Sewer Main Lining Program	195,700	201,600	207,600	425,000	425,000	600,000	618,000	2,672,900
Sewer Manhole Lining Program	157,600	162,300	167,200	172,200	177,400	-	-	836,700
WWTP Access Road Repavement	-	418,600	-	-	-	-	-	418,600
WWTP Air Compressor Replacement Project	-	51,591	-	-	-	-	-	51,591
WWTP Building Renovation & Demolition Program	-	50,000	-	52,000	-	110,000	-	212,000
WWTP Grit Chamber Duct Insulation Replace	35,892	-	-	-	-	-	-	35,892
WWTP HVAC Replacement Project	-	-	45,000	-	325,000	-	375,000	745,000
WWTP Service Water System Upgrade Project	-	-	231,000	-	-	-	-	231,000
WWTP Sludge Drier Project	-	-	300,000	-	-	3,161,000	-	3,461,000
WWTP Sludge Pump Replacement Project	374,101	-	-	-	-	-	-	374,101
WWTP Tank Repair Program	-	150,000	150,000	150,000	150,000	-	300,000	900,000
TOTAL CAPITAL PROGRAM	\$ 2,618,893	\$ 2,785,991	\$ 3,426,300	\$ 2,487,100	\$ 2,921,300	\$ 5,712,900	\$ 3,301,400	\$ 23,253,884

PROJECT FUNDING DETAIL

Reserve Funded Projects

Martell Court Roof Replacement	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000
Sewer Improvements Program	755,600	556,900	738,000	364,900	493,900	491,900	633,400	4,034,600
Sewer Main Lining Program	195,700	201,600	207,600	425,000	425,000	600,000	618,000	2,672,900
Sewer Manhole Lining Program	157,600	162,300	167,200	172,200	177,400	-	-	836,700
WWTP Access Road Repavement	-	418,600	-	-	-	-	-	418,600
WWTP Air Compressor Replacement Project	-	41,106	-	-	-	-	-	41,106
WWTP Building Renovation & Demolition Program	-	50,000	-	52,000	-	110,000	-	212,000
WWTP Grit Chamber Duct Insulation Replace	35,892	-	-	-	-	-	-	35,892
WWTP HVAC Replacement Project	-	-	45,000	-	325,000	-	375,000	745,000
WWTP Service Water System Upgrade Project	-	-	231,000	-	-	-	-	231,000
WWTP Sludge Drier Project	-	-	300,000	-	-	-	-	300,000
WWTP Sludge Pump Replacement Project	374,101	-	-	-	-	-	-	374,101
WWTP Tank Repair Program	-	150,000	150,000	150,000	150,000	-	300,000	900,000
Total: Reserve Funded Projects	\$ 1,518,893	\$ 1,650,506	\$ 1,838,800	\$ 1,164,100	\$ 1,571,300	\$ 1,201,900	\$ 1,926,400	\$ 10,871,899

Projects Funded with Debt

WWTP Sludge Drier Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,161,000	\$ -	\$ 3,161,000
Total: Projects Funded with Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,161,000	\$ -	\$ 3,161,000

Projects Funded with Grants

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

Capital Reserve Appropriations

Capital Reserve: Martell Court	\$ -	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 150,000
Capital Reserve: Sewer Infrastructure	800,000	800,000	900,000	900,000	950,000	950,000	950,000	6,250,000
Capital Reserve: Wastewater Treatment Plant	300,000	300,000	325,000	325,000	375,000	375,000	400,000	2,400,000
Total: Capital Reserve Appropriations	\$ 1,100,000	\$ 1,125,000	\$ 1,250,000	\$ 1,250,000	\$ 1,350,000	\$ 1,350,000	\$ 1,375,000	\$ 8,800,000

Projects Funded with Cash

Laboratory Instrument & Equip Replace	\$ -	\$ -	\$ -	\$ 73,000	\$ -	\$ -	\$ -	\$ 73,000
Lower Winchester Infrastructure	-	-	337,500	-	-	-	-	337,500
WWTP Air Compressor Replacement Project (Rebate)	-	10,485	-	-	-	-	-	10,485
Total: Projects Funded with Cash	\$ -	\$ 10,485	\$ 337,500	\$ 73,000	\$ -	\$ -	\$ -	\$ 420,985

Subtotal: Uses of Current Cash

(Capital Reserve Appropriations plus Projects Funded with Current Cash)

TOTAL: CAPITAL PROGRAM	\$ 2,618,893	\$ 2,785,991	\$ 3,426,300	\$ 2,487,100	\$ 2,921,300	\$ 5,712,900	\$ 3,301,400	\$ 23,253,884
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New Cash Requirement FY 23-29: Reconciliation

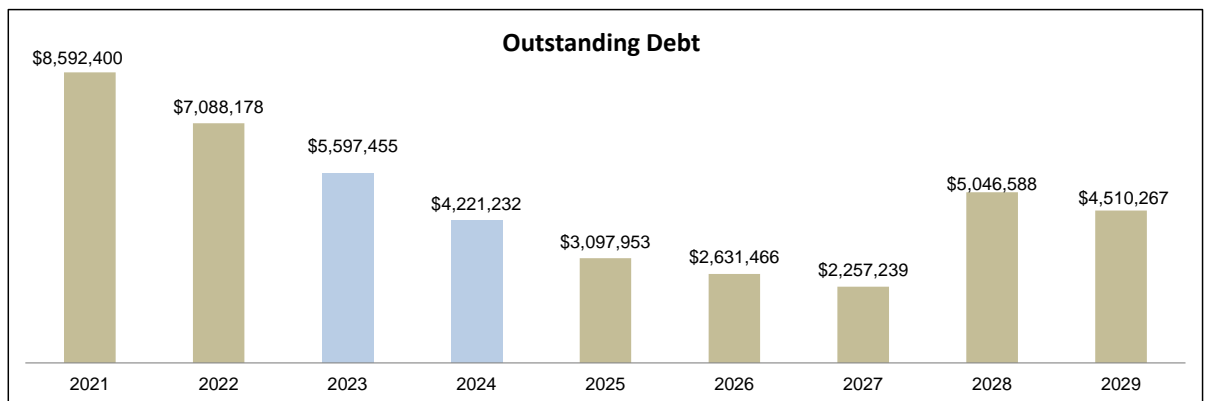
Total: Uses of Cash	\$ 1,100,000	\$ 1,135,485	\$ 1,587,500	\$ 1,323,000	\$ 1,350,000	\$ 1,350,000	\$ 1,375,000	\$ 9,220,985
Use of Retained Earnings/Project Balance	-	(10,485)	-	-	-	-	-	(10,485)
New Funds Needed	\$ 1,100,000	\$ 1,125,000	\$ 1,587,500	\$ 1,323,000	\$ 1,350,000	\$ 1,350,000	\$ 1,375,000	\$ 9,210,500

Sewer Fund

2023 - 2029 CIP Debt Summary

	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Existing Debt	\$7,088,178	\$5,597,455	\$4,221,232	\$3,097,953	\$2,631,466	\$2,257,239	\$5,046,588
Authorized Not Issued	-	-	-	-	-	-	-
New Issues Proposed	-	-	-	-	-	3,161,000	-
Principal Paid	(1,490,723)	(1,376,223)	(1,123,280)	(466,487)	(374,226)	(371,652)	(536,321)
Total Existing Debt & Issues Proposed	\$5,597,455	\$4,221,232	\$3,097,953	\$2,631,466	\$2,257,239	\$5,046,588	\$4,510,267

	<u>Issue</u>	<u>Term</u>	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Existing & Authorized Debt Service (P & I)			\$1,658,282	\$1,511,512	\$1,228,443	\$546,817	\$440,662	\$425,713	\$368,620
Proposed Debt Service CIP FY23									
N/A									
Proposed Debt Service CIP FY24									
N/A									
Proposed Debt Service CIP FY25									
N/A									
Proposed Debt Service CIP FY26									
N/A									
Proposed Debt Service CIP FY27									
N/A									
Proposed Debt Service CIP FY28									
WWTP Sludge Drier	3,161,000	15						51,366	310,041
Proposed Debt Service CIP FY29									
N/A									
Total CIP 23-29 Debt Service Proposed			0	0	0	0	0	51,366	310,041
Total Projected Debt Service: Sewer Fund			\$1,658,282	\$1,511,512	\$1,228,443	\$546,817	\$440,662	\$477,079	\$678,662



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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Roof Replacement		(70,000)					
Total Expenditures	\$0	(\$70,000)	\$0	\$0	\$0	\$0	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	0	25,000	25,000	25,000	25,000	25,000	25,000
Estimated Investment Earnings	306	239	276	314	352	390	428
Total Receipts	\$306	\$25,239	\$25,276	\$25,314	\$25,352	\$25,390	\$25,428
Estimated End of Year Reserve Balance							
	\$204,071	\$159,310	\$184,586	\$209,900	\$235,252	\$260,642	\$286,070

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Sewer Improvement Program	(755,600)	(556,900)	(738,000)	(364,900)	(493,900)	(491,900)	(633,400)
Sewer Main Lining Program	(195,700)	(201,600)	(207,600)	(425,000)	(425,000)	(600,000)	(618,000)
Sewer Manhole Lining Program	(157,600)	(162,300)	(167,200)	(172,200)	(177,400)		
Total Expenditures	(\$1,108,900)	(\$920,800)	(\$1,112,800)	(\$962,100)	(\$1,096,300)	(\$1,091,900)	(\$1,251,400)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	800,000	800,000	900,000	900,000	950,000	950,000	950,000
Estimated Investment Earnings	1,932	1,754	1,437	1,346	1,129	918	467
Total Receipts	\$801,932	\$801,754	\$901,437	\$901,346	\$951,129	\$950,918	\$950,467
Estimated End of Year Reserve Balance	\$1,290,130	\$1,171,084	\$959,721	\$898,967	\$753,796	\$612,814	\$311,881

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Access Road Repavement		(418,600)					
Air Compressor Replacement		(41,106)					
Building Renovation & Demolition		(50,000)		(52,000)		(110,000)	
Grit Chamber Duct Insulation	(35,892)						
HVAC Replacement			(45,000)		(325,000)		(375,000)
Sludge Drier			(300,000)				
Sludge Pump Replacement	(374,101)						
Tank Repair Program		(150,000)	(150,000)	(150,000)	(150,000)		(300,000)
WWTP Service Water System Upgrade			(231,000)				
Total Expenditures	<u>(\$409,993)</u>	<u>(\$659,706)</u>	<u>(\$726,000)</u>	<u>(\$202,000)</u>	<u>(\$475,000)</u>	<u>(\$110,000)</u>	<u>(\$675,000)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	300,000	300,000	325,000	325,000	375,000	375,000	400,000
Estimated Investment Earnings	1,715	1,178	578	763	614	1,013	602
Total Receipts	<u>\$301,715</u>	<u>\$301,178</u>	<u>\$325,578</u>	<u>\$325,763</u>	<u>\$375,614</u>	<u>\$376,013</u>	<u>\$400,602</u>
Estimated End of Year Reserve Balance							
	\$1,144,800	\$786,272	\$385,850	\$509,613	\$410,227	\$676,240	\$401,842

Sewer Fund

2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL FY 20/21	BUDGET FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27	PROJECTED FY27/28	PROJECTED FY28/29
REVENUES									
Intergovernmental	\$566,123	\$155,000	\$200,000	\$200,000	\$200,000	\$150,000	\$150,000	\$150,000	\$150,000
Charges for Services	6,006,167	5,890,400	6,096,260	6,187,704	6,311,458	6,469,244	6,630,975	6,796,750	6,932,685
Miscellaneous	54,080	1,500	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Use of Surplus		(60,754)							
Capital Program - Interfund Appropriations	1,096,065	1,100,000	1,518,893	1,660,991	1,838,800	1,164,100	1,571,300	1,201,900	1,926,400
Capital Program - Sale of Bonds								3,161,000	
TOTAL REVENUES	\$7,722,436	\$7,086,146	\$7,865,153	\$8,098,695	\$8,400,258	\$7,833,344	\$8,402,275	\$11,359,650	\$9,059,085
EXPENSES									
Sewer Administration	\$603,648	\$718,444	\$618,739	\$634,208	\$646,892	\$659,830	\$676,326	\$693,234	\$707,098
Mains & Manholes	348,859	379,499	357,581	366,520	373,851	381,328	390,861	400,633	408,645
Services	3,949	7,299	4,048	4,149	4,232	4,317	4,425	4,535	4,626
Martell Court Pump Station	108,592	143,806	111,307	114,089	116,371	118,699	121,666	124,708	127,202
Laboratory	261,726	265,314	268,269	274,975	280,475	286,084	293,237	300,567	306,579
Maintenance	120,674	160,100	123,691	126,783	129,319	131,905	135,203	138,583	141,355
WWTP	2,428,918	2,696,250	2,489,640	2,551,882	2,602,919	2,654,978	2,721,352	2,789,386	2,845,173
Depreciation Expense	1,350,908	1,415,200	1,300,000	1,300,000	1,300,000	1,250,000	1,300,000	1,300,000	1,300,000
Debt Service	225,288	200,234	167,559	135,290	105,163	80,330	66,435	105,428	142,341
Subtotal	\$5,452,561	\$5,986,146	\$5,440,834	\$5,507,897	\$5,559,222	\$5,567,470	\$5,709,504	\$5,857,074	\$5,983,020
CAPITAL PROGRAM									
Capital Reserve Appropriations	\$870,000	\$1,100,000	\$1,100,000	\$1,125,000	\$1,250,000	\$1,250,000	\$1,350,000	\$1,350,000	\$1,375,000
Capital Projects-Net Interfund Transfers	217,608		1,518,893	1,660,991	2,176,300	1,237,100	1,571,300	1,201,900	1,926,400
Capital Projects-Funded with Debt								3,161,000	
Capital P Project Expenditures	43,607								
TOTAL EXPENSES	\$1,131,214	\$1,100,000	\$2,618,893	\$2,785,991	\$3,426,300	\$2,487,100	\$2,921,300	\$5,712,900	\$3,301,400
NET REVENUE (EXPENSE)	\$6,583,776	\$7,086,146	\$8,059,727	\$8,293,888	\$8,985,522	\$8,054,570	\$8,630,804	\$11,569,974	\$9,284,420
	\$1,138,660	\$0	(\$194,574)	(\$195,193)	(\$585,264)	(\$221,226)	(\$228,529)	(\$210,324)	(\$225,335)
Projected Fund Balance End of Year	\$5,411,100	\$5,471,854	\$5,277,280	\$5,082,086	\$4,496,822	\$4,275,596	\$4,047,067	\$3,836,743	\$3,611,408

SEWER IMPROVEMENTS PROGRAM

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	Estimated cost ⁽¹⁾	Construction year	Inflation rate	Years between estimate and construction	Inflation factor	Inflation adjust.	Construction year estimated cost ⁽²⁾
	Sewer force main rehabilitation ⁽³⁾	\$650,000	2023	3%	2	0.06	\$39,600	\$689,600
Island St	Prepare designs for FY24 project.	\$62,200	2023	3%	2	0.06	\$3,800	\$66,000
	Replace 1670 feet of 6-inch sewer mains along Island Street, North of the Ashuelot River	\$414,900	2024	3%	3	0.09	\$38,500	\$453,400
Downtown Infrastructure ⁽⁴⁾	Prepare designs for FY25 project.	\$94,700	2024	3%	3	0.09	\$8,800	\$103,500
	Replace approx. 3,460 feet of clay sewer mains on the east side of Main Street (from Washington to Eagle), Church St. (from Main to Wells), Lamson St. (from Main to Federal) and Gilbo Ave. (from Main to St. James) and West St. (Main to School). Sewer mains in the Downtown were installed between the 1880's and the 1930's.	\$631,300	2025	3%	4	0.13	\$79,200	\$710,500
Church Street	Prepare designs for FY26 project.	\$24,400	2025	3%	4	0.13	\$3,100	\$27,500
	Replace approx. 860 feet of clay sewer mains along Church Street, from Probate to S. Lincoln. This work is scheduled to coincide with planned drainage improvements.	\$162,800	2026	3%	5	0.16	\$25,900	\$188,700
George St. & Sullivan St.	Prepare designs for FY27 project.	\$152,000	2026	3%	5	0.16	\$24,200	\$176,200
	Replace approx. 2,900 feet of 6-inch sewer mains with significant structural defects on these two streets. The sewer mains in this neighborhood were installed in 1926.	\$426,000	2027	3%	5	0.16	\$67,900	\$493,900
	Update the 2003 Sewer Infrastructure Master Plan	\$400,000	2028	3%	7	0.23	\$91,900	\$491,900
TBD	Priorities for 2029 to be determined through the Master Plan Update	\$500,000	2029	3%	8	0.27	\$133,400	\$633,400

Notes:

- 1) Estimated cost in current dollars.
- 2) 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.
- 3) 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.
- 4) A total of \$277,100 was appropriated for this work in FY21 and FY22. An additional \$536,900 is included in this CIP.

2023 - 2029 Capital Project Funding Request

Sewer Fund



GENERAL PROJECT DATA

Project/Program:	Sewer Improvements Program
Project Number:	08055 / 32MI002
Physical Location:	Various
Type:	Ongoing Program
Capital Reserve (Wholly or In Part):	Sewer Infrastructure - page 140
Federal / State Regulation or Law:	N/A
Master Plan (CMP) Focus Area:	Quality Built Environment; Healthy Community
CMP Vision/Strategy:	Infrastructure
Departmental Objective:	Improvement in collection system carrying capacity and reliable operation through the upgrade of existing mains and elimination of infiltration



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The Sewer Improvement Program funds 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.

The prior CIP provided funding for a detailed inspection of the City's 2-mile long force main that conveys sewerage under pressure to the wastewater treatment plant. That evaluation is now underway. 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 FY23 to address any deficiencies found.

The 1930s vintage sewers on Island Street in conjunction with water infrastructure work will be replaced in FY24. In FY25, funds are requested to address sewer system needs in conjunction with the Downtown Infrastructure Project. The scope of this work will include older sewers on east side of Main Street, along with portions of West St., Lamson St., Gilbo Ave., and Church St. In FY26, this program will replace sewer mains dating to the 1880s on Church Street (between Probate and S. Lincoln).

By 2028, 25 years will have passed since the City prepared its "Wastewater Infrastructure Master Plan". By that time we will have addressed all of the major recommendations. Funds are requested in that year to update the plan. The work will include a comprehensive evaluation of the wastewater collection system, including video inspection of selected, representative segments. The report will help guide infrastructure investment for the next two decades.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	66,000	103,500	27,500	176,200		491,900		865,100
Construction / Implementation	689,600	453,400	710,500	188,700	493,900		633,400	3,169,500
Property/Equip. Acquisition								0
Other								0
TOTAL	\$755,600	\$556,900	\$738,000	\$364,900	\$493,900	\$491,900	\$633,400	\$4,034,600

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	755,600	556,900	738,000	364,900	493,900	491,900	633,400	4,034,600
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$755,600	\$556,900	\$738,000	\$364,900	\$493,900	\$491,900	\$633,400	\$4,034,600

2023 - 2029 Capital Project Funding Request

Sewer Fund



GENERAL PROJECT DATA

Project/Program:	Sewer Main Lining Program
Project Number:	08066 / 32MI004
Physical Location:	Various
Type:	Ongoing Program
Capital Reserve (Wholly or In Part):	Sewer Infrastructure - page 140
Federal / State Regulation or Law:	Clean Water Act; NPDES permit / RSA 485-A:13
Master Plan (CMP) Focus Area:	Quality Built Environment; Healthy Community
CMP Vision/Strategy:	Infrastructure
Departmental Objective:	Improvement in collection system reliability by lining mains that require maintenance but are sized adequately to meet the City's needs.



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project funds the lining of sewer mains that have adequate capacity, but require maintenance due to structural defects, leaking joints, etc. In recent years, this program funded the rehabilitation of some of the most critical sewer mains, including work on Winchester St, Marlboro St., West St. and the Beaver Brook Interceptor.

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. As we work through this prioritized list, assets are evaluated first for rehabilitation under this lining program. If it is determined that a pipe should not be rehabbed (either due to capacity concerns or poor alignment), the work is planned to be done through the Sewer Improvements program.

In 2015, the City performed a series of flow tests in our sewer system to identify areas of high stormwater and groundwater "Inflow and Infiltration" (I&I). The study identified several geographic areas that generate higher rates of I&I into the system during both wet and dry weather. I&I is a concern because it results in our pumping stations and treatment plant having to move and treat significant volumes of clean water. Every gallon of clean water moving through the sewer system drives up energy costs and requires uses additional chemical feedstock as part of the treatment process.

The two documents described above are used in tandem to select individual assets to be rehabilitated each year. First we look for assets that present the greatest risk (based on age, size, condition, etc.), then among assets with similar risk profiles, preference is given to pipes in high I&I areas. Over the coming 3-4 years, most of the work planned under this program will be in the neighborhoods East of Main Street.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	195,700	201,600	207,600	425,000	425,000	600,000	618,000	2,672,900
Property/Equip. Acquisition								0
Other								0
TOTAL	\$195,700	\$201,600	\$207,600	\$425,000	\$425,000	\$600,000	\$618,000	\$2,672,900

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	195,700	201,600	207,600	425,000	425,000	600,000	618,000	2,672,900
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$195,700	\$201,600	\$207,600	\$425,000	\$425,000	\$600,000	\$618,000	\$2,672,900

2023 - 2029 Capital Project Funding Request

Sewer Fund



GENERAL PROJECT DATA

Project/Program:	Sewer Manhole Lining Program
Project Number:	08051 / 32M1006
Physical Location:	Various
Type:	Ongoing Program
Capital Reserve (Wholly or In Part):	Sewer Infrastructure - page 140
Federal / State Regulation or Law:	Clean Water Act; NPDES permit / RSA 485-A:13
Master Plan (CMP) Focus Area:	Quality Built Environment; Healthy Community
CMP Vision/Strategy:	Infrastructure
Departmental Objective:	Eliminate groundwater infiltration into the treatment system and wastewater exfiltration through defects in deteriorated brick manholes



PROJECT/PROGRAM 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 program 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.

Recent efforts to isolate sources of groundwater infiltration into our sewer collection system have identified the older, east-side neighborhoods as high impact areas. Therefore, the program will begin in these neighborhoods, including work on lower Marlboro Street, Congress St. and Eastern Ave. In 2024, work will continue towards the north in the areas that contribute to the Beaver Brook sewer interceptor.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	157,600	162,300	167,200	172,200	177,400	0	0	836,700
Property/Equip. Acquisition								0
Other								0
TOTAL	\$157,600	\$162,300	\$167,200	\$172,200	\$177,400	\$0	\$0	\$836,700

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	157,600	162,300	167,200	172,200	177,400	0	0	836,700
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$157,600	\$162,300	\$167,200	\$172,200	\$177,400	\$0	\$0	\$836,700

2023 - 2029 Capital Project Funding Request

Sewer Fund



GENERAL PROJECT DATA

Project/Program: Lower Winchester Street Reconstruct - Sewer Infrastructure Support

Project Number: TBD

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

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

Departmental Objective: Improve gateway/corridor into the City



PROJECT/PROGRAM 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 Mathews Road and Winchester Street to improve traffic turning movements. This project would involve the reconstruction of Winchester Street 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. The sewer main that is currently suspended under the Winchester Street bridge will also be replaced with an inverted syphon system.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			337,500					337,500
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$337,500	\$0	\$0	\$0	\$0	\$337,500

FINANCIAL PLAN

FUNDING								
Current Revenue			337,500					337,500
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$337,500	\$0	\$0	\$0	\$0	\$337,500

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project/Program: WWTP Access Road Repaving Project

Project Number: TBD

Physical Location: 420 Airport Road

Type: One-time Project

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

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

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain Infrastructure



PROJECT/PROGRAM 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. The work is planned to occur simultaneously with similar rehabilitation of Airport Road (refer to the General Fund Pavement Rehabilitation Program).

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		418,600						418,600
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$418,600	\$0	\$0	\$0	\$0	\$0	\$418,600

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve		418,600						418,600
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$418,600	\$0	\$0	\$0	\$0	\$0	\$418,600

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Sludge Dryer Project

Project Number: 08108 / 32JW014

Physical Location: 420 Airport Road

Type: Multiphase Project

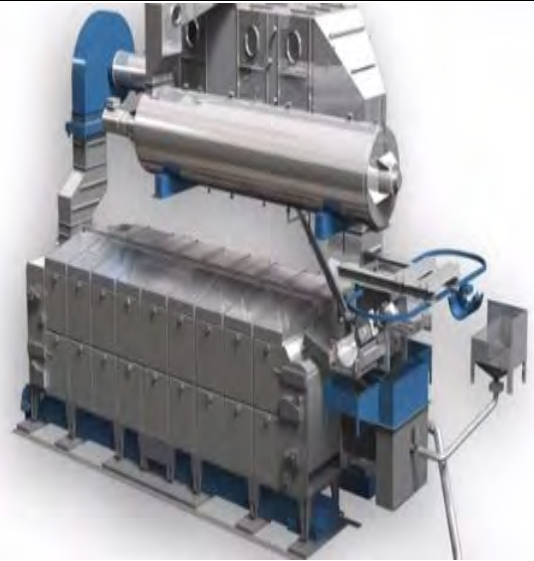
Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM 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 biosolids 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 upgrades to the dewatering equipment in 2016 reduced that number to 4500 tons/year or about a 30% reduction.

Due to the recent Perfluoroalkyl Substances (PFAS) issue and reduced landfill capacity, NH municipalities are facing challenges regarding sludge disposal and increasing disposal prices. The City of Keene is not immune to these challenges. Prior to a new contract effective November 1, 2021 the City of Keene paid \$85.24/ton, that cost increased to \$121/ton with annual increases of 3.5% each year until the new contract expires in October 2026.

FY22 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. FY28 funds the construction of a building addition and purchase of a sludge dryer 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			300,000					300,000
Construction / Implementation						200,000		200,000
Property/Equip. Acquisition						2,936,000		2,936,000
Other - Debt Issuance						25,000		25,000
TOTAL	\$0	\$0	\$300,000	\$0	\$0	\$3,161,000	\$0	\$3,461,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			300,000					300,000
Debt Funded						3,161,000		3,161,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$300,000	\$0	\$0	\$3,161,000	\$0	\$3,461,000

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project/Program: WWTP Sludge Pump Replacement Project

Project Number: 08082 / 321W016

Physical Location: 420 Airport Road

Type: Multiphase Project

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM 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. The replacement pumps are expected to be more energy-efficient than the existing equipment.

FY21 funded engineering services to assist with the specification development, equipment selection and construction oversight. The equipment selection and specification development is currently underway. 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. Bids for construction services for the replacement of all six pumps will be advertised in the spring of 2022, with construction taking place in FY23.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	374,101							374,101
Property/Equip. Acquisition								0
Other								0
TOTAL	\$374,101	\$0	\$0	\$0	\$0	\$0	\$0	\$374,101

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	374,101							374,101
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$374,101	\$0	\$0	\$0	\$0	\$0	\$0	\$374,101

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Service Water System Upgrade Project

Project Number: 08103 / 321W024

Physical Location: 420 Airport Road

Type: Multiphase Project

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure, Energy Efficiency

Departmental Objective: Replace old outdated service water equipment with new energy efficient technologies



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project replaces the non-potable service water system at the Wastewater Treatment Plant. Service water is wastewater that has received complete treatment and is suitable for discharge into the river, but is not suitable for drinking. To conserve resources, service water is used throughout the WWTP in applications where drinking quality water is not required. The equipment is original to the plant (circa 1985) and is approaching 40 years old and has reached the end of its useful life. The new pumping system will be controlled by variable frequency drives (VFDs) and will be more energy efficient.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			231,000					231,000
Property/Equip. Acquisition								0
Other								0
TOTAL		\$0	\$231,000	\$0	\$0	\$0	\$0	\$231,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			231,000					231,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$231,000	\$0	\$0	\$0	\$0	\$231,000

**2023 - 2029 Capital Project Funding Request
Sewer Fund**



GENERAL PROJECT DATA

Project Name: WWTP Air Compressor Replacement Project

Project Number: TBD

Physical Location: 420 Airport Road

Type: New One-time Project

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure, Energy Efficiency

Departmental Objective: Replace old equipment that is near serviceable life expectancy with new, more energy efficient technology



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project replaces two original multi-stage compressors (circa 1985) with one Variable Frequency Drive (VFD) operated rotary screw compressor. The new compressor will serve as the primary source of compressed air for the operation of two positive displacement, air actuated septage pumps. This project is partially funded from a \$10,485 Eversource rebate accepted by City Council 10/21/21. The new unit will be more energy efficient and will have a one time rebate of approximately \$4,500 from Eversource.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		51,591						51,591
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$51,591	\$0	\$0	\$0	\$0	\$0	\$51,591

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve		41,106						41,106
Debt Funded								0
Federal / State Grants								0
Other Sources (Eversource Rebate 10/21/21)		10,485						10,485
TOTAL	\$0	\$51,591		\$0	\$0	\$0	\$0	\$51,591

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Grit Chamber Duct Insulation Replacement

Project Number: TBD

Physical Location: 420 Airport Road

Type: One-time Project

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project will replace the heating, ventilation, and air conditioning (HVAC) ductwork insulation in the grit chamber located 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 has reached the end of its useful life.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	35,892							35,892
Property/Equip. Acquisition								0
Other								0
TOTAL	\$35,892	\$0	\$0	\$0	\$0	\$0	\$0	\$35,892

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	35,892							35,892
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$35,892	\$0	\$0	\$0	\$0	\$0	\$0	\$35,892

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP HVAC Replacement Project

Project Number: TBD

Physical Location: 420 Airport Road

Type: New Multiphase Project

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure; Energy Efficiency

Departmental Objective: Replace old equipment near its serviceable life with newer energy saving technologies



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project replaces the heating, ventilation, and air conditioning (HVAC) system at the Wastewater Treatment Plant (WWTP). The HVAC is important for fresh air exchange for equipment and personnel safety. The current system was installed in 2004 and is not energy efficient and has reached the end of its 15 to 25 year serviceable life.

The new HVAC system will meet all air exchange requirements as specified by code while allowing for energy savings with updated variable frequency drive (VFD) controls. The new units will be eligible for a one time energy rebate from Eversource.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design			45,000					45,000
Construction / Implementation					325,000		375,000	700,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$45,000	\$0	\$325,000	\$0	\$375,000	\$745,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			45,000		325,000		375,000	745,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$45,000	\$0	\$325,000	\$0	\$375,000	\$745,000

2023 - 2029 Capital Project Funding Request

Sewer Fund



GENERAL PROJECT DATA

Project/Program: WWTP Tank Repair Program

Project Number: 08060 / 32MW002

Physical Location: 420 Airport Road

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The Wastewater Treatment Plant (WWTP) was constructed in the early 1980's and is approximately 40 years old. Current upgrades have replaced many original components and systems. However, the backbone infrastructure such as the clarifiers and storage tanks are original to the plant and periodic maintenance is required to keep this infrastructure in good repair.

This project funds improvements to the primary and secondary clarifiers as well as the aeration basin. The clarifiers were last coated in 2000 and the coating system has all but worn away. To continue to protect the clarifiers and mechanisms the concrete and steel components must be sealed or coated. The aeration basins are in original condition with no work having been performed to the structures since the plant came online.

- FY24 funds the prep and coating of the center well, rake arms, walls and launders in one primary clarifier.
- FY25 funds the prep and coating of the center well, rake arms, walls and launders in one primary clarifier.
- FY26 funds the prep and coating of the center well, rake arms and sealing in one secondary clarifier.
- FY27 funds the prep and coating of the center well, rake arms and sealing in one secondary clarifier.
- FY29 funds the prep, concrete repair and coating of one aeration basin.
- FY31 will fund the prep, concrete repair and coating of one aeration basin.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design		25,000	25,000	25,000	25,000		50,000	150,000
Construction / Implementation		125,000	125,000	125,000	125,000		250,000	750,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$300,000	\$900,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve		150,000	150,000	150,000	150,000		300,000	900,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$150,000	\$150,000	\$150,000	\$150,000	\$0	\$300,000	\$900,000

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project Name: WWTP Building Renovation and Demolition Program

Project Number: TBD

Physical Location: 420 Airport Road

Type: New Ongoing Program

Capital Reserve (Wholly or In Part): Wastewater Treatment Plant -page 141

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure,

Departmental Objective: Demolition of old out of service building and build of new storage area



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The program involves demolition, maintenance and renovations to existing buildings and structures at the WWTP. It also includes the construction of a new storage building. The work will begin in FY24 and continue every other year until complete.

FY24 funds repairs to the existing chip building. The chip building is a three sided steel structure that was originally used to store wood chips for the composting process back in the 1980's. The structure is currently used to store chemicals and equipment. The work involves sand blasting and coating the interior structural steel to prevent further degradation and preserve the structure for years to come.

FY26 funds construction of a 21 X 21 foot storage building on a pre-existing foundation that will serve as cold storage for equipment that would otherwise be exposed to the elements.

FY28 funds the demolition of an out of service building that is beyond repair. This structure once housed equipment used for the composting process, a practice that was phased out in the late 1980's. This will require a significant amount of concrete removal and site work.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		50,000		52,000		110,000		212,000
Property/Equip. Acquisition								0
Other								0
TOTAL		\$50,000	\$0	\$52,000	\$0	\$110,000	\$0	\$212,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve		50,000		52,000		110,000		212,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL		\$0	\$50,000	\$0	\$52,000	\$0	\$110,000	\$212,000

2023 - 2029 Capital Project Funding Request Sewer Fund



GENERAL PROJECT DATA

Project/Program: Martell Court Roof Replacement

Project Number: 08093 / 32JM010

Physical Location: 176 Martell Court

Type: Multiphase Project

Capital Reserve (Wholly or In Part): Martell Court - page 139

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

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



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project replaces the original asphalt roof (circa 1985) at the Martell Court Pump Station. Because asphalt roofs are no longer an industry accepted roof material, the roof will be replaced with a rubber membrane style roofing system.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		70,000						70,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$70,000	\$0	\$0	\$0	\$0	\$0	\$70,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve		70,000						70,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$70,000	\$0	\$0	\$0	\$0	\$0	\$70,000

2023 - 2029 Capital Project Funding Request

Sewer Fund



GENERAL PROJECT DATA

Project/Program: Laboratory Instrumentation and Equipment Replacement Program

Project Number: TBD

Physical Location: 420 Airport Road (Laboratory)

Type: New Ongoing Program

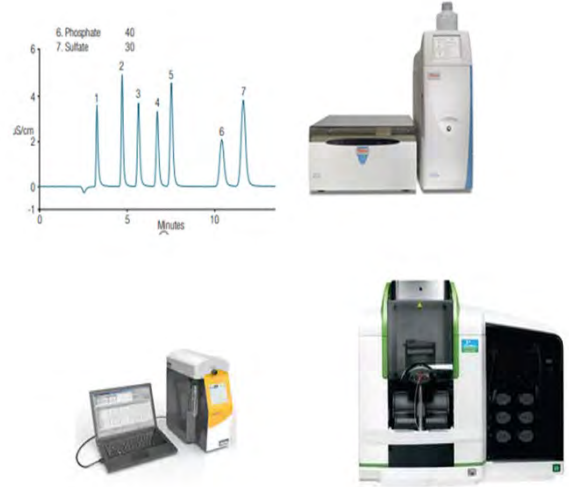
Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Appropriately timed replacement of laboratory instruments and support equipment



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This program will fund replacing laboratory instrumentation and support equipment used for wastewater analysis. The laboratory uses a variety of sophisticated instrumentation including an Atomic Absorption Spectrometer for low level metals analysis, and UV spectrophotometry for a variety of colorimetric analytical methods. Our support equipment includes a variety of incubators and ovens that must maintain tight temperature controls.

The laboratory staff performs or contracts out regular preventative maintenance on the instrumentation and equipment to keep them performing well and to lengthen their service life. However, instrumentation can become obsolete as improvements to the technology continue at a rapid pace, and replacement becomes necessary. This program will fund replacements that are outside the scope of the operating budget. Planning ahead to fund these large purchases through capital reserves, is the mission of this program.

The Atomic Absorption spectrometer is due for replacement in FY 26. This instrumentation allows for in-house analysis of low level metals. As regulations require lower detection limits, we may investigate Inductively Coupled Plasma/Mass Spectrometry technology before replacing our AA with another graphite furnace/flame combination instrument. The budget figure placeholder is for the more expensive IPC/MS instrumentation. The cost for this instrument will be split between water and wastewater funds since it is used for both drinking water and wastewater samples.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition				73,000				73,000
Other								0
TOTAL	\$0	\$0	\$0	\$73,000	\$0	\$0	\$0	\$73,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue				73,000				73,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$73,000	\$0	\$0	\$0	\$73,000

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. These sources include two surface water reservoirs, Babbidge and Woodward, located in the Town of Roxbury, three gravel wells located off Court Street and one gravel well located off West Street. Combined, the supplies are adequate for current demand under average precipitation conditions. The two surface water reservoirs can store a total of 850 million gallons of water and the City owns approximately 3,100 acres of the reservoirs’ watershed land with the majority of the land in the Town of Roxbury, the remaining in the Towns of Harrisville, Marlborough, and Nelson. The water in the wellfields on West and Court Streets are re-supplied by more than 300 square miles of watershed. This CIP includes refurbishing the existing well facilities at the West Street well or construction of a new well facility in another location.

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, between 1964 – 1977, in an era with fewer treatment requirements so current treatment options are limited due to the small size of the facilities. An evaluation of the buildings is part of the City’s Water Supply Master Plan Project underway in 2021 with completion in 2022. Future CIP’s will include projects that developed from the Water Supply Master Plan to improve the future reliability and flexibility of the wellfields as the City responds to water quality regulations and plans for the likelihood of frequent periods of regional drought because of climate change.

The City’s Drinking Water Treatment Facility turned 28 years old in 2021 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 102 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 oldest known pipe in our system was placed into service in Central square just three years after the end of the Civil War.

The current CIP funds improvement (either lining or replacement) of water mains at the rate of about a 3,300 feet per year. With no changes to this rate, all of the City’s water mains will be replaced or lined over the next 163 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, commercial or manufacturing areas may be without water and fire protection, 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.

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.

Storing more than 5 million gallons of water occurs in the City's six (6) water storage tanks. The Drummer Hill tank failed in March 2018, and its replacement along with a new pump station was emergency-funded from Water Infrastructure capital reserve. The construction of those facilities was completed in 2021, however, this incident indicates that while the community is planning repair and replacement of the infrastructure on a schedule that keeps Keene's water rates as possible, 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. This CIP includes funds to correct deficiencies and perform needed repairs to the 3 MG tank.

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.

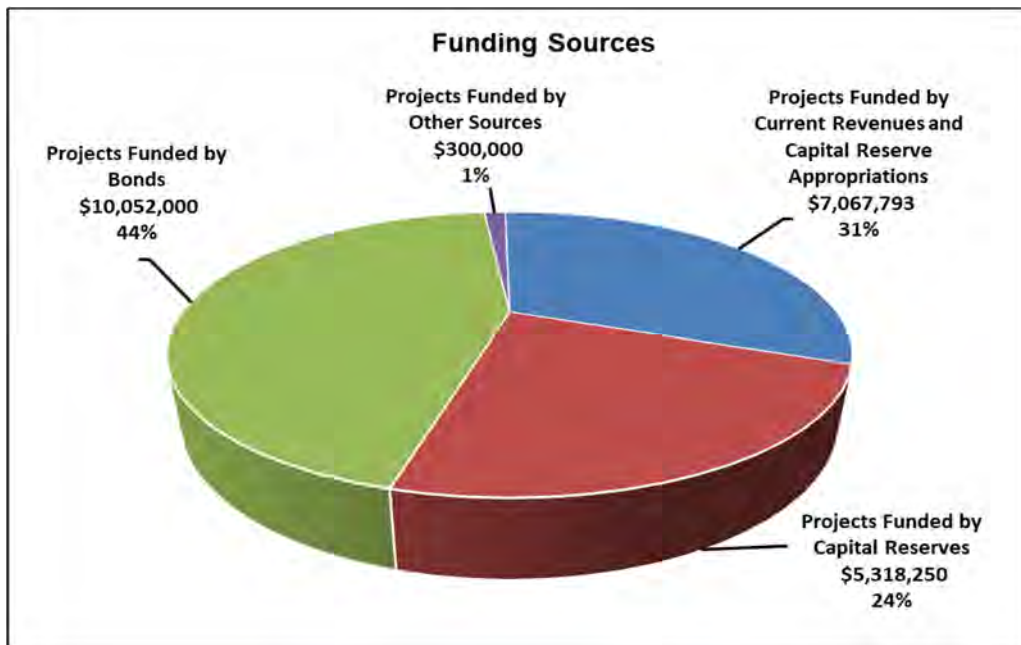
WATER FUND

The proposed CIP includes several projects for the Water Fund. Over the seven-year span of the CIP, the Water Fund is proposing \$22,738,043, or 14% 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. As with the General Fund, the Water Fund utilizes capital reserve accounts. Annual appropriates are included in the CIP and earmarked as a funding source for future projects.

Funding for the Water Fund capital projects will come from several sources. Current revenues will contribute 31%, capital reserves 24%, bonds 44%, and other sources 1%.

	Projects Funded by Current Revenues and Capital Reserve Appropriations	Projects Funded by Capital Reserves	Projects Funded by Bonds	Projects Funded by Grants	Projects Funded by Other Sources	Total
FY22/23	\$ 875,000	\$ 424,251	\$ 2,433,000	\$ -	\$ 300,000	\$ 4,032,251
FY23/24	1,164,793	1,385,796	0	0	0	2,550,589
FY24/25	1,225,000	745,200	1,749,000	0	0	3,719,200
FY25/26	948,000	358,223	3,551,000	0	0	4,857,223
FY26/27	875,000	603,000	957,000	0	0	2,435,000
FY27/28	1,130,000	1,191,780	0	0	0	2,321,780
FY28/29	850,000	610,000	1,362,000	0	0	2,822,000
TOTAL	\$ 7,067,793	\$ 5,318,250	\$ 10,052,000	\$ -	\$ 300,000	\$ 22,738,043

Current revenues are derived from water rates that are charged to customers using the water system and water service meters. 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 \$22,738,043.

A. Water Distribution Highlights

1. Water Distribution Improvements – the seven-year request for projects of this type total \$6,323,900
2. Storage Tank Repairs – 2 water storage tanks are scheduled for repair between FY23 with a total cost of \$2,482,451.
3. Water Valve Replacement – the seven-year request for water valve replacement totals \$807,000.
4. Water Main Cleaning and Lining – relining failing cast iron pipes at a cost of \$2,372,500.

B. Production System Highlights

1. Well Field Upgrades – design and implementation of well field improvements are scheduled for FY24 and FY 26 with a total cost of \$2,472,500.
2. WTF Valve and Actuator Replacement/Upgrade in FY26 and FY28 with a total cost of \$284,680.

Water Fund

2023 - 2029 Capital Improvement Program Summary

Project Name	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
CR Appropriation: Water Infrastructure	700,000	700,000	700,000	700,000	700,000	700,000	700,000	\$ 4,900,000
CR Appropriation: Water Treatment Facility	175,000	175,000	175,000	175,000	175,000	150,000	150,000	1,175,000
Emergency Generators		250,793				280,000		530,793
Laboratory Instrumentation/Equip Replacement		39,000	50,000	73,000				162,000
Lower Winchester Infrastructure			300,000					300,000
3 MG Storage Tank Repairs	2,433,000							2,433,000
Chapman Water Tank Repairs	49,451							49,451
Water Distribution Improvements	113,600	780,100	1,749,000	984,000	957,000	378,200	1,362,000	6,323,900
Water Main Cleaning and Lining	381,300		596,200		450,000	465,000	480,000	2,372,500
Water Utility Work - Bridges		69,700				68,300		138,000
Water Valve Replacement	102,000	105,000	110,000	115,000	120,000	125,000	130,000	807,000
Well Field Upgrades		175,500		2,567,000				2,742,500
WTF Blower Replacement				83,783				83,783
WTF Filter Media Replacement		255,496						255,496
WTF Instrumentation Upgrade			39,000	30,040	33,000			102,040
WTF Pavement Replacement	77,900							77,900
WTF Valve & Actuator Replace/Upgrade				129,400		155,280		284,680
TOTAL CAPITAL PROGRAM	\$ 4,032,251	\$ 2,550,589	\$ 3,719,200	\$ 4,857,223	\$ 2,435,000	\$ 2,321,780	\$ 2,822,000	\$ 22,738,043

PROJECT FUNDING DETAIL

Reserve Funded Projects

Chapman Water Tank Repairs	\$ 49,451	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 49,451
Water Distribution Improvements	113,600	780,100	-	-	-	378,200	-	1,271,900
Water Main Cleaning and Lining	81,300	-	596,200	-	450,000	465,000	480,000	2,072,500
Water Utility Work - Bridges	-	69,700	-	-	-	68,300	-	138,000
Water Valve Replacement	102,000	105,000	110,000	115,000	120,000	125,000	130,000	807,000
Well Field Upgrades	-	175,500	-	-	-	-	-	175,500
WTF Blower Replacement	-	-	-	83,783	-	-	-	83,783
WTF Filter Media Replacement	-	255,496	-	-	-	-	-	255,496
WTF Instrumentation Upgrade	-	-	39,000	30,040	33,000	-	-	102,040
WTF Pavement Replacement	77,900	-	-	-	-	-	-	77,900
WTF Valve & Actuator Replace/Upgrade	-	-	-	129,400	-	155,280	-	284,680
Total: Reserve Funded Projects	\$ 424,251	\$ 1,385,796	\$ 745,200	\$ 358,223	\$ 603,000	\$ 1,191,780	\$ 610,000	\$ 5,318,250

Projects Funded with Debt

3 MG Storage Tank Repairs	\$ 2,433,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,433,000
Water Distribution Improvements	-	-	1,749,000	984,000	957,000	-	1,362,000	5,052,000
Well Field Upgrades	-	-	-	2,567,000	-	-	-	2,567,000
Total: Projects Funded with Debt	\$ 2,433,000	\$ -	\$ 1,749,000	\$ 3,551,000	\$ 957,000	\$ -	\$ 1,362,000	\$ 10,052,000

Capital Reserve Appropriations

Capital Reserve: Water Infrastructure	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000	\$ 4,900,000
Capital Reserve: Water Treatment Facility	175,000	175,000	175,000	175,000	175,000	150,000	150,000	1,175,000
Total: Capital Reserve Appropriations	\$ 875,000	\$ 875,000	\$ 875,000	\$ 875,000	\$ 875,000	\$ 850,000	\$ 850,000	\$ 6,075,000

Projects Funded with State Grant

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

Projects Funded with Cash

Emergency Generators	\$ -	\$ 250,793	\$ -	\$ -	\$ -	\$ 280,000	\$ -	\$ 530,793
Laboratory Instrumentation/Equip Replacement	-	39,000	50,000	73,000	-	-	-	162,000
Lower Winchester Infrastructure	-	-	300,000	-	-	-	-	300,000
Water Main Cleaning and Lining	300,000	-	-	-	-	-	-	300,000
Total: Projects Funded with Cash	\$ 300,000	\$ 289,793	\$ 350,000	\$ 73,000	\$ -	\$ 280,000	\$ -	\$ 1,292,793

Subtotal: Uses of Cash	\$ 1,175,000	\$ 1,164,793	\$ 1,225,000	\$ 948,000	\$ 875,000	\$ 1,130,000	\$ 850,000	\$ 7,367,793
(Capital Reserve Appropriations plus Projects Funded with Cash)								

TOTAL CAPITAL PROGRAM	\$ 4,032,251	\$ 2,550,589	\$ 3,719,200	\$ 4,857,223	\$ 2,435,000	\$ 2,321,780	\$ 2,822,000	\$ 22,738,043
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New Cash Requirement FY 23-29: Reconciliation

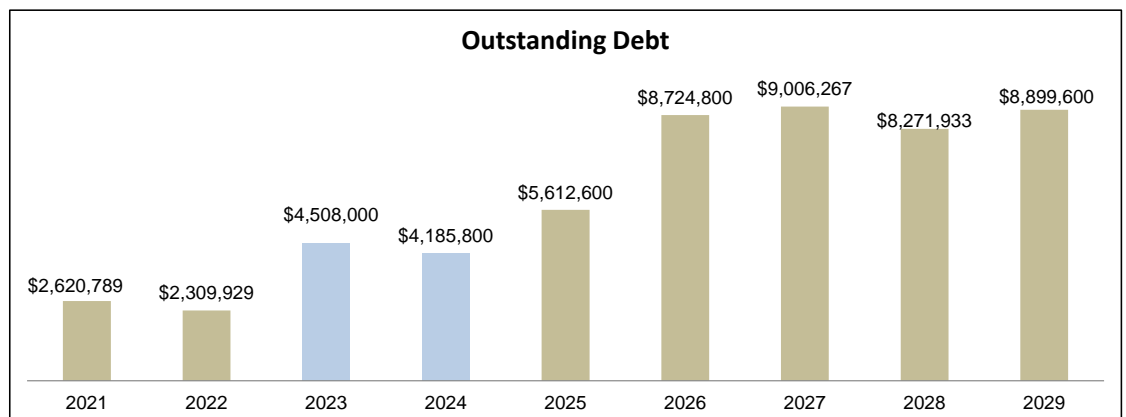
Total: Uses of Cash	\$ 1,175,000	\$ 1,164,793	\$ 1,225,000	\$ 948,000	\$ 875,000	\$ 1,130,000	\$ 850,000	\$ 7,367,793
Use of Retained Earnings/Project Balance	(300,000)	-	-	-	-	-	-	-
New Funds Needed	\$ 875,000	\$ 1,164,793	\$ 1,225,000	\$ 948,000	\$ 875,000	\$ 1,130,000	\$ 850,000	\$ 7,367,793

Water Fund

2023 - 2029 CIP Debt Summary

	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
Existing Debt	\$2,309,929	\$4,508,000	\$4,185,800	\$5,612,600	\$8,724,800	\$9,006,267	\$8,271,933
Authorized Not Issued	-	-	-	-	-	-	-
New Issues Proposed	2,433,000	-	1,749,000	3,551,000	957,000	-	1,362,000
Principal Paid	(234,929)	(322,200)	(322,200)	(438,800)	(675,533)	(734,333)	(734,333)
Total Existing Debt & Issues Proposed	<u>\$4,508,000</u>	<u>\$4,185,800</u>	<u>\$5,612,600</u>	<u>\$8,724,800</u>	<u>\$9,006,267</u>	<u>\$8,271,933</u>	<u>\$8,899,600</u>

	<u>Issue</u>	<u>Term</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
Existing & Authorized Debt Service (P & I)			\$282,917	\$203,017	\$199,320	\$195,623	\$191,925	\$183,478	\$180,280
Proposed Debt Service CIP FY23									
3 MG Water Tank Repair	2,433,000	15	39,536	238,637	233,365	228,094	222,822	217,551	212,279
Proposed Debt Service CIP FY24									
N/A									
Proposed Debt Service CIP FY25									
Water Distribution Improvements	1,749,000	15			28,421	171,548	167,758	163,969	160,179
Proposed Debt Service CIP FY26									
Water Distribution Improvements	984,000	15				15,990	96,514	94,382	92,250
Well Field Upgrades	2,567,000	15				41,714	251,780	246,218	240,656
Proposed Debt Service CIP FY27									
Water Distribution Improvements	957,000	15					15,551	93,866	91,792
Proposed Debt Service CIP FY28									
N/A									
Proposed Debt Service CIP FY29									
Water Distribution Improvements	1,362,000	15							22,133
Total CIP 23-29 Debt Service Proposed			<u>39,536</u>	<u>238,637</u>	<u>261,787</u>	<u>457,345</u>	<u>754,426</u>	<u>815,985</u>	<u>819,290</u>
Total Projected Debt Service: Water Fund			<u>\$322,454</u>	<u>\$441,654</u>	<u>\$461,106</u>	<u>\$652,968</u>	<u>\$946,351</u>	<u>\$999,463</u>	<u>\$999,570</u>



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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Chapman Road Water Tank	(49,451)						
Water Distribution Improvements	(113,600)	(780,100)				(378,200)	
Water Main Cleaning & Lining	(81,300)		(596,200)		(450,000)	(465,000)	(480,000)
Water Utility Work - Bridges		(69,700)				(68,300)	
Water Valve Replacement	(102,000)	(105,000)	(110,000)	(115,000)	(120,000)	(125,000)	(130,000)
Well Field Upgrade Program		(175,500)					
Total Expenditures	<u>(\$346,351)</u>	<u>(\$1,130,300)</u>	<u>(\$706,200)</u>	<u>(\$115,000)</u>	<u>(\$570,000)</u>	<u>(\$1,036,500)</u>	<u>(\$610,000)</u>
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	700,000	700,000	700,000	700,000	700,000	700,000	700,000
Estimated Investment Earnings	1,377	734	725	1,604	1,801	1,299	1,436
Total Receipts	<u>\$701,377</u>	<u>\$700,734</u>	<u>\$700,725</u>	<u>\$701,604</u>	<u>\$701,801</u>	<u>\$701,299</u>	<u>\$701,436</u>
Estimated End of Year Reserve Balance	<u>\$919,358</u>	<u>\$489,792</u>	<u>\$484,317</u>	<u>\$1,070,921</u>	<u>\$1,202,722</u>	<u>\$867,521</u>	<u>\$958,957</u>

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Blower Replacement				(83,783)			
Filter Media Replacement		(255,496)					
Instrument Upgrade			(39,000)	(30,040)	(33,000)		
Pavement Replacement	(77,900)						
Valve & Actuator Replace/Upgrade				(129,400)		(155,280)	
Total Expenditures	(\$77,900)	(\$255,496)	(\$39,000)	(\$243,223)	(\$33,000)	(\$155,280)	\$0
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	175,000	175,000	175,000	175,000	175,000	150,000	150,000
Estimated Investment Earnings	177	56	260	158	372	364	590
Total Receipts	\$175,177	\$175,056	\$175,260	\$175,158	\$175,372	\$150,364	\$150,590
Estimated End of Year Reserve Balance							
	\$118,016	\$37,576	\$173,836	\$105,771	\$248,143	\$243,227	\$393,817

Water Fund

2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL FY 20/21	BUDGET FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27	PROJECTED FY27/28	PROJECTED FY28/29
REVENUES									
Intergovernmental	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Charges for Services	3,880,013	4,061,840	4,671,116	5,138,228	5,523,595	5,799,774	6,089,763	6,394,251	6,713,964
Miscellaneous	15,332	1,000	17,500	17,500	20,000	20,000	20,000	20,000	20,000
Use of Surplus									
Capital Program-Interfund Appropriations	956,904	1,160,200	724,251	1,385,796	745,200	358,223	603,000	1,191,780	610,000
Capital Program-Sale of Bonds			2,433,000		1,749,000	3,551,000	957,000		1,362,000
TOTAL REVENUES	\$4,872,249	\$5,223,040	\$5,412,867	\$6,541,524	\$8,037,795	\$9,728,997	\$7,669,763	\$7,606,031	\$8,705,964
EXPENSES									
Public Works Water	\$813,786	\$916,128	\$830,061	\$850,813	\$867,829	\$885,186	\$902,889	\$920,947	\$939,366
Water Main & Trench Repairs	294,657	237,704	300,550	308,064	314,225	320,510	326,920	\$333,458	\$340,127
Water Supply	155,263	178,214	158,368	162,327	165,574	168,885	172,263	\$175,708	\$179,222
Hydrants	159,000	139,640	162,180	166,235	169,559	172,950	176,409	\$179,938	\$183,536
Meters	446,203	475,381	455,127	466,505	475,835	485,352	495,059	\$504,960	\$515,059
Water Services	50,100	51,688	51,102	52,380	53,427	54,496	55,586	\$56,697	\$57,831
Water Treatment Facility	683,509	714,344	697,179	714,608	728,900	743,478	758,348	\$773,515	\$788,985
Laboratory	196,435	227,627	200,364	205,373	209,480	213,670	217,943	\$222,302	\$226,748
Maintenance	172,419	160,616	175,867	180,264	183,869	187,547	191,298	195,124	\$199,026
Depreciation Expense	1,014,489	998,100	950,000	950,000	950,000	950,000	950,000	950,000	950,000
Debt Service	45,071	54,415	87,525	119,454	138,906	214,168	270,817	\$265,130	265,237
CAPITAL PROGRAM	\$4,030,930	\$4,153,857	\$4,068,323	\$4,176,022	\$4,257,605	\$4,396,241	\$4,517,532	\$4,577,779	\$4,645,139
Capital Reserve Appropriations	825,000	1,025,000	875,000	875,000	875,000	875,000	875,000	850,000	850,000
Capital Projects-Net Interfund Transfers	13,328	135,200	724,250	1,675,589	1,095,200	431,223	603,000	1,471,780	610,000
Capital Project - Funded with Debt			2,433,000		1,749,000	3,551,000	957,000		1,362,000
Capital Project Expenditures	36,646								
TOTAL EXPENSES	\$838,328	\$1,160,200	\$4,032,250	\$2,550,589	\$3,719,200	\$4,857,223	\$2,435,000	\$2,321,780	\$2,822,000
NET REVENUE (EXPENSE)	\$4,869,258	\$5,314,057	\$8,100,573	\$6,726,611	\$7,976,805	\$9,253,464	\$6,952,532	\$6,899,559	\$7,467,139
	\$2,991	(\$91,017)	(\$2,687,706)	(\$185,087)	\$60,990	\$475,533	\$717,232	\$706,472	\$1,238,825

Projected Fund Balance End of Year \$1,108,983 (\$1,578,723) (\$1,763,810) (\$1,702,820) (\$1,227,287) (\$510,056) \$196,417 \$1,435,242

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.

Over the past 4 years many improvements have been completed. In 2018, the Blackbrook tank was taken offline and completely refurbished inside and out. In 2019, the City completed an evaluation of the 3MG storage tank and it is recommended that the tank be refurbished rather than replaced. As a result of an emergency, In 2020, construction of a new water storage tank in the Drummer Hill development was completed. New, above ground electrical buildings are currently being designed for Blackbrook and Chapman Road tanks, with construction scheduled to occur in FY23.

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. A current CIP 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. A consultant has been selected and engineering and design work is scheduled to begin in FY22.

The 2023-2029 CIP funds repairs to the interior and exterior coating systems as well as safety improvements for the Chapman Road water storage tank and complete refurbishing of the 3MG water storage tank located on

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: 3 MG Water Storage Tank Repair Project

Project Number: 05053 / 34JI004
 Physical Location: Roxbury Street
 Type: Multiphase Project
 Capital Reserve (Wholly or In Part): N/A
 Federal / State Regulation or Law: N/A

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

Departmental Objective: Extend the useful life of the water storage tank through repairs and maintenance



PROJECT/PROGRAM 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 \$2.4 million. The work is scheduled to take place in FY23.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	140,000							140,000
Construction / Implementation	2,273,382							2,273,382
Property/Equip. Acquisition								0
Other - Debt Issuance	19,618							19,618
TOTAL	\$2,433,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,433,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded	2,433,000							2,433,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$2,433,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,433,000

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: Chapman Water Storage Tank Repair Project

Project Number: 05095 / 34J1012

Physical Location: Chapman Water Tank

Type: Multiphase Project

Capital Reserve (Wholly or In Part): Water Infrastructure - page 166

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Extend the useful life of the water storage tank through repairs and maintenance



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This 200,000 gallon, precast concrete water storage tank was constructed in 1993. This project includes repairs identified in the November 2013 Tighe and Bond "Water Facilities Evaluation," including repairs to the interior and exterior of the tank and application of a new cementitious coating system. In addition, this project funds installation of a dome safety cable system.

FY20 & FY22 funded a more detailed evaluation, design and installation of a new, above ground electrical building that will accommodate the electrical panels and control systems as well as refurbishing the interior and exterior of the tank. This new, above ground electrical building will eliminate the current underground electrical pit and provide a moisture free environment for the electrical equipment and will allow a single staff member to perform repairs and checks without having to perform a confined space entry. This work is scheduled to be completed in FY22.

FY23 funds the remaining balance needed to complete the interior and exterior repairs and installation of the safety cable system.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	49,451							49,451
Property/Equip. Acquisition								0
Other - Debt Issuance								0
TOTAL	\$49,451	\$0	\$0	\$0	\$0	\$0	\$0	\$49,451

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	49,451							49,451
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$49,451	\$0	\$0	\$0	\$0	\$0	\$0	\$49,451

WATER DISTRIBUTION IMPROVEMENTS PROGRAM

In 2015 the Public Works Department completed a Water Mains Asset Management Plan (AMP). 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.

In developing the list of specific projects the Department also looks at other planned improvements. For example, the planned improvements on Rt. 101 has a lower risk score than some other assets, but it is planned to be replaced in conjunction with the NHDOT road rehab work.

Street	Scope of work	Length (feet)	Estimated cost ⁽¹⁾	Construction year	Inflation adjust. (3% per year)	Construction year estimated cost ⁽²⁾
Island Street	Prepare designs for FY25 project	-	\$107,100	2023	\$6,500	\$113,600
	Replace 6" cast iron pipe with 8" ductile iron pipe from West Street to the bridge over the Ashuelot River	1,850	\$713,900	2024	\$66,200	\$780,100
Downtown Infrastructure ⁽³⁾	Replace cast iron pipes installed between 1868 and 1928 from Central Square to Emerald Street. Project Scope includes work on Church St. (from Main to Wells), Lamson St. (from Main to Federal) and Gilbo Ave. (from Main to School)	3,470	\$1,436,500	2025	\$180,300	\$1,630,600
	Debt Issuance Cost		\$13,800			
Church Street	Prepare designs for FY26 project		\$105,200	2025	\$13,200	\$118,400
	Replace 6" cast iron water mains installed in the 1890s with 8" ductile iron pipe from Norway Ave. to S. Lincoln Street - work is scheduled to coincide with planned drainage improvements	1,780	\$701,500	2026	\$111,700	\$821,200
	Debt Issuance Cost		\$8,000			
Court Street	Prepare designs for FY26 project	-	\$140,445	2026	\$22,400	\$162,800
	Replace 10" cast iron pipe with 12" ductile iron pipe from East Surry Rd. to Maple Ave.	3,350	\$795,855	2027	\$154,400	\$957,000
	Debt Issuance Cost		\$6,745			
City Wide	Update the 2002 Water Infrastructure Master Plan					\$175,000
Rt. 101	Prepare designs for FY29 project	-	\$151,155	2028	\$52,000	\$203,200
	Replace 12" cast iron pipe with 12" ductile iron from Swanzey Factory Rd. to Branch Road as part of the NHDOT reconstruction of Rt. 101	3360	\$856,545	2029	\$329,100	\$1,195,900
	Debt Issuance Cost		\$10,221			
Hastings Avenue	Prepare designs for FY30 project	-	\$120,000	2029	\$46,100	\$166,100
	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	\$411,800	\$1,379,100
Maple Avenue	Prepare designs for FY31 project	-	\$141,885	2030	\$60,400	\$202,300
	Replace 10" cast iron pipe with 12" ductile iron pipe from Hastings Avenue to Rt. 12	3,313	\$945,900	2031	\$443,200	\$1,389,100

1) Estimated Costs in Current Year dollars

2) All costs include 10% for construction contingencies, 15% for engineering design, 10% for construction administration, and 1% for supervision

3) Design funds for the Downtown Infrastructure Project were approved in FY22

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA	
Project/Program:	Water Distribution Improvements Program
Project Number:	05009 / 34MI002
Physical Location:	Various
Type:	Ongoing Program
Capital Reserve (Wholly or In Part):	Water Infrastructure - page 166
Federal / State Regulation or Law:	N/A
Master Plan (CMP) Focus Area:	Quality Built Environment; Healthy Community
CMP Vision/Strategy:	Infrastructure
Departmental Objective:	Improve water quality and system reliability

PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This program provides funds for the replacement of water mains in order to address system reliability and capacity concerns. During the seven-year period covered by this CIP, we anticipate replacing 3.9 Miles of our approximately 102 miles of water main; an average of 0.5% per year. At this pace, it will take approximately 183 years to replace all of the mains in the system. While this is an improvement in prior CIP's rate of replacement, it is not sufficient to keep pace with the rate of degradation.

An update to the program for FY23 & FY24 has been made to accommodate the anticipated schedule for the Downtown Infrastructure project. Work on Island Street has been pulled forward one year and the Downtown work is now planned for 2025. Work on Church Street has been programmed for 2026 in order to coincide with planned drainage improvements in that neighborhood. In FY29, the NHDOT's plans to reconstruct Rt. 101 from Swanze 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.

A portion of the design funds programmed for FY28 below will be used to update the City's Water Infrastructure Master Plan. This plan was prepared in 2002 and has served as the basis for most of the Capital Improvements in the Water Fund over the last two decades. The effort will include a top-to-bottom evaluation of the water treatment and distribution system, with recommendations for the next twenty years of Capital Improvement priorities.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	113,600		118,400	162,800		378,200	166,100	939,100
Construction / Implementation		780,100	1,616,800	813,200	950,255		1,185,679	5,346,034
Property/Equip. Acquisition								0
Other - Debt Issuance			13,800	8,000	6,745		10,221	38,766
TOTAL	\$113,600	\$780,100	\$1,749,000	\$984,000	\$957,000	\$378,200	\$1,362,000	\$6,323,900

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	113,600	780,100				378,200		1,271,900
Debt Funded			1,749,000	984,000	957,000		1,362,000	5,052,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$113,600	\$780,100	\$1,749,000	\$984,000	\$957,000	\$378,200	\$1,362,000	\$6,323,900

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: Water Main Cleaning and Lining Program

Project Number: 05063 / 34MI004

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Water Infrastructure - page 166

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Improve water quality and system reliability



PROJECT/PROGRAM 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. Over the next seven years, we anticipate lining approximately 1.75 miles of water main.

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. The Department has evaluated a number of alternative technologies for our lining program. In 2018 a trail was conducted using a type of spray-applied epoxy lining. While we were very satisfied with the finished product, the process required extended outages and significant disruption to our customers. In 2023 we intend to complete the work using a "Cured In Place Pipe" process. This is similar to the system used to line sewer mains but the product is designed for pressurized pipes.

In FY27, we plan to begin lining the sixteen-inch "Cross-Town" transmission main. This pipe is relatively new (installed in 1957). However, it serves as an absolutely critical link between West Keene and the water treatment plant in East Keene. Therefore, earlier rehabilitation through pipe lining is recommended.

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)
- FY27-FY29: Water Street (4,930 LF of 16" main) - work will be completed in 3 phases

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	381,300		596,200		450,000	465,000	480,000	2,372,500
Property/Equip. Acquisition								0
Other								0
TOTAL	\$381,300	\$0	\$596,200	\$0	\$450,000	\$465,000	\$480,000	\$2,372,500

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve	81,300		596,200		450,000	465,000	480,000	2,072,500
Debt Funded								0
Federal / State Grants								0
Other - Project Balance	300,000							300,000
TOTAL	\$381,300	\$0	\$596,200	\$0	\$450,000	\$465,000	\$480,000	\$2,372,500

2023 - 2029 Capital Project Funding Request

Water Fund



GENERAL PROJECT DATA

Project/Program: Lower Winchester Street Reconstruct - Water Infrastructure Support

Project Number: TBD

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

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Transportation

Departmental Objective: Improve gateway/corridor into the City



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The City has a number of gateway entrances into the City. One of these gateways is Winchester Street from the Swanzezy 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 Mathews Road and Winchester Street to improve traffic turning movements. This project would involve the reconstruction of Winchester Street 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			300,000					300,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000

FINANCIAL PLAN

FUNDING								
Current Revenue			300,000					300,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$300,000	\$0	\$0	\$0	\$0	\$300,000

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: Water Utility Work - Bridges

Project Number: TBD

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Water Infrastructure - page 166

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Improve water quality and system reliability



PROJECT/PROGRAM 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

FY28: Beaver Street over Beaver Brook

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		69,700				68,300		138,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$69,700	\$0	\$0	\$0	\$68,300	\$0	\$138,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve		69,700				68,300		138,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$69,700	\$0	\$0	\$0	\$68,300	\$0	\$138,000

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT/PROGRAM DATA

Project/Program: Water Valve Replacement Program

Project Number: 05048 / 34MI006

Physical Location: Various

Type: Ongoing Program

Capital Reserve (Wholly or In Part): Water Infrastructure - page 166

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Improve Water distribution system reliability



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This program 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 old 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. Annual projects 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	102,000	105,000	110,000	115,000	120,000	125,000	130,000	807,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$102,000	\$105,000	\$110,000	\$115,000	\$120,000	\$125,000	\$130,000	\$807,000

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	102,000	105,000	110,000	115,000	120,000	125,000	130,000	807,000
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$102,000	\$105,000	\$110,000	\$115,000	\$120,000	\$125,000	\$130,000	\$807,000

2023 - 2029 Capital Project Funding Request

Water Fund



GENERAL PROJECT DATA

Project/Program: WTF Pavement Replacement Project

Project Number: TBD

Physical Location: 555 Roxbury Road

Type: One-time Project

Capital Reserve (Wholly or In Part): Water Treatment Facility - page 167

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain Infrastructure



PROJECT/PROGRAM 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. 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	77,900							77,900
Property/Equip. Acquisition								0
Other								0
TOTAL	\$77,900	\$0	\$0	\$0	\$0	\$0	\$0	\$77,900

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	77,900							77,900
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$77,900	\$0	\$0	\$0	\$0	\$0	\$0	\$77,900

2023 - 2029 Capital Project Funding Request

Water Fund



GENERAL PROJECT DATA

Project/Program: WTF Filter Media and Underdrain Replacement Project

Project Number: 05059 / 34JW002

Physical Location: 555 Roxbury Road

Type: Multiphase Project

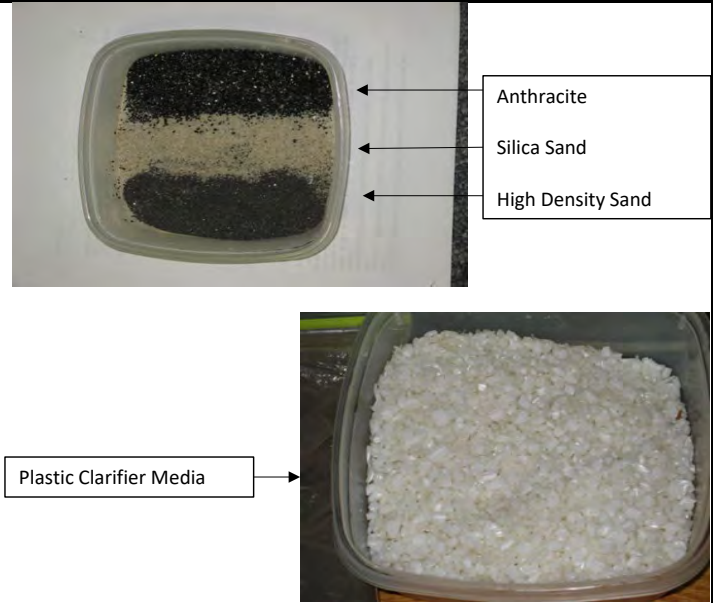
Capital Reserve (Wholly or In Part): Water Treatment Facility - page 167

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Maintain compliance with drinking water standards through filter maintenance



PROJECT/PROGRAM 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. The City contracted with Tighe and Bond Consulting Engineers in 2013 to perform an evaluation of the filters and media. The evaluation found that the anthracite media does not meet specifications and should be replaced. Inspection and repair of the underdrain system will happen when the existing media has been removed. When the underdrain work is complete, all 3 layers of media will be replaced with new material.

The FY20 CIP began funding repairs and media replacement for one filter unit every two years. This project funds the repair of the underdrain system and filter media replacement for the last remaining unit.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation		255,496						255,496
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$255,496	\$0	\$0	\$0	\$0	\$0	\$255,496

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve		255,496						255,496
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$255,496	\$0	\$0	\$0	\$0	\$0	\$255,496

2023 - 2029 Capital Project Funding Request

Water Fund



GENERAL PROJECT DATA

Project/Program: Emergency Generators Replacement Program

Project Number: TBD

Physical Location: Chapman Rd, 555 Roxbury Rd

Type: Ongoing Program

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Emergency Preparedness

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/PROGRAM DESCRIPTION & JUSTIFICATION

This project funds the purchase of 3 new emergency power generators.

FY24 funds the purchase and installation of a 100 KW emergency generator and automatic transfer switch at the Chapman Road Water Booster Station. A permanently located generator at the booster station would allow for uninterrupted water service during a power outage. Transporting a portable generator to this location is challenging because it is a steep, curving driveway that is difficult to maneuver in good weather, and dangerous or impossible during storm conditions.

FY24 also funds replacement of a 30 KW portable generator that was purchased in 1985 and is used at remote stations where permanent emergency power is not available.

FY28 funds replacement of the 250 KW emergency generator at the Water Treatment Facility (WTF). The existing generator was installed in 1997 and will be 30 years old at the time of replacement. This generator provides emergency power and allows the WTF to operate at full capacity for the duration of a power outage.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design		25,000				35,000		60,000
Construction / Implementation								0
Property/Equip. Acquisition		225,793				245,000		470,793
Other								0
TOTAL	\$0	\$250,793	\$0	\$0	\$0	\$280,000	\$0	\$530,793

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue		250,793				280,000		530,793
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$250,793	\$0	\$0	\$0	\$280,000	\$0	\$530,793

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: WTF Instrumentation Replacement/Upgrade Program

Project Number: 05081 / 34MW002

Physical Location: 555 Roxbury Road

Type: On-going Program

Capital Reserve (Wholly or in Part): Water Treatment Facility - page 167

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Monitor plant performance and make process changes to optimize water quality



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The Water Treatment Facility (WTF), ground water wells, storage tanks and pump stations are equipped with online monitoring equipment that allows staff the ability to monitor and trend the performance of the water system 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, eight (8) online turbidity analyzers in FY26 and an online alkalinity analyzer in FY27.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation			39,000	30,040	33,000			102,040
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$0	\$39,000	\$30,040	\$33,000	\$0	\$0	\$102,040

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve			39,000	30,040	33,000			102,040
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$39,000	\$30,040	\$33,000	\$0	\$0	\$102,040

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: WTF Valve & Actuator Replacement/Upgrade Program

Project Number: TBD

Physical Location: 555 Roxbury Road

Type: New On-going Program

Capital Reserve (Wholly or In Part): Water Treatment Facility - page 167

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure; Energy Efficiency

Departmental Objective: Replace original equipment that is near its serviceable life with new energy efficient technologies



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

Flow through the plant is controlled via a series of valves located upstream and downstream of the package treatment units. All of the valves and actuators are original to the facility (1993). Based on the average valve design life, the majority of valves have a remaining useful life of at least 10 years, however the pneumatic actuators are approaching the end of their useful life.

Pneumatic actuators are inefficient, with up to a 50% loss in energy applied. Inefficiencies begin when electricity is used to create the compressed air, followed by losses that typically occur in leaking tubes, fittings, and positioners at the actuators. Therefore, its recommended replacing the pneumatic actuators with electric actuators.

This program funds the replacement of the valves and actuators required for the operation of one filter unit beginning in FY26 and will continue every other year until the valve and actuators have been replaced on all three filter units.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation				20,000		24,000		44,000
Property/Equip. Acquisition				109,400		131,280		240,680
Other								0
TOTAL	\$0	\$0	\$0	\$129,400	\$0	\$155,280	\$0	\$284,680

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve				129,400		155,280		284,680
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$129,400	\$0	\$155,280	\$0	\$284,680

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: WTF Blower Replacement Project

Project Number: TBD

Physical Location: 555 Roxbury Road

Type: One-time Project

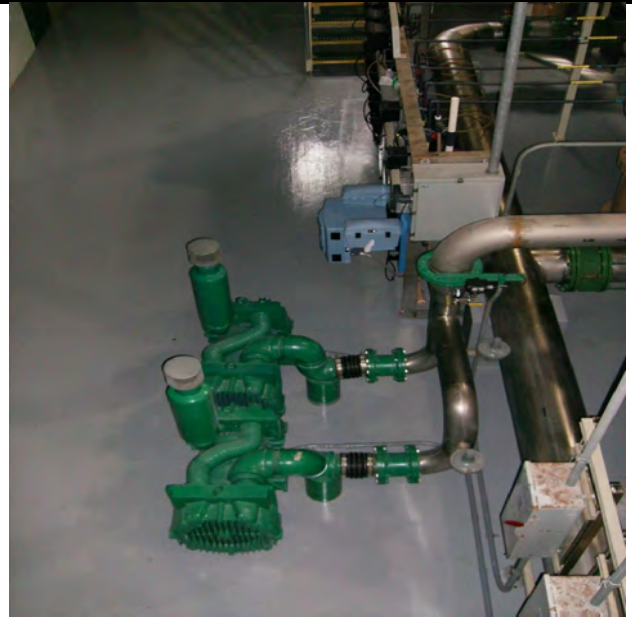
Capital Reserve (Wholly or In Part): Water Treatment Facility - page 167

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure; Energy Efficiency

Departmental Objective: Replace original equipment with newer, more energy efficient technologies



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

The City's Water Treatment Facility has two regenerative blowers that supply high volumes of air for cleaning the filter units. The blowers are 1993 original equipment and are beginning to require more maintenance attention. The November 2013 "Water Facilities Evaluation" performed by Tighe and Bond recommended replacement within ten years. The blowers will be 32 years old at the time of replacement.

This project funds the replacement of two blowers that will be operated by variable frequency drives. Since this is a direct replacement, installation of new equipment will be performed by City staff.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition				83,783				83,783
Other								0
TOTAL	\$0	\$0	\$0	\$83,783	\$0	\$0	\$0	\$83,783

FINANCIAL PLAN

FUNDING	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
Current Revenue								0
Capital Reserve				83,783				83,783
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$83,783	\$0	\$0	\$0	\$83,783

2023 - 2029 Capital Project Funding Request Water Fund



GENERAL PROJECT DATA

Project/Program: Well Field Upgrade Program

Project Number: 05093 / 34MI008

Physical Location: West and Court Street Well Facilities

Type: On-going Program

Capital Reserve (Wholly or In Part): Water Infrastructure - page 166

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Continually support and maintain infrastructure



PROJECT/PROGRAM 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 funded an in-depth, detailed evaluation of these facilities which is currently ongoing. 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. FY24 funds the design for either rehabilitation of current assets or construction of a new well facility.

FY26 funds either rehabilitation of the West Street facilities, or construction of new supply well and corrosion control facility. Even though it is beyond the scope of this current CIP, it is anticipated that design improvements to the Court Street Well facilities will begin in FY30 and rehabilitation or construction of new facilities will occur in FY32.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design		175,500						175,500
Construction / Implementation				2,546,000				2,546,000
Property/Equip. Acquisition								0
Other - Debt Issuance				21,000				21,000
TOTAL	\$0	\$175,500	\$0	\$2,567,000	\$0	\$0	\$0	\$2,742,500

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue								0
Capital Reserve		175,500						175,500
Debt Funded				2,567,000				2,567,000
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$175,500	\$0	\$2,567,000	\$0	\$0	\$0	\$2,742,500

2023 - 2029 Capital Project Funding Request

Water Fund



GENERAL PROJECT DATA

Project/Program: Laboratory Instrumentation and Equipment Replacement Program

Project Number: TBD

Physical Location: 420 Airport Road (Laboratory)

Type: New Ongoing Program

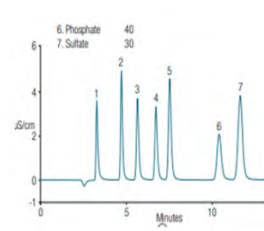
Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment; Healthy Community

CMP Vision/Strategy: Infrastructure

Departmental Objective: Appropriately timed replacement of laboratory instruments and support equipment



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This program will fund replacing laboratory instrumentation and support equipment used for drinking water analysis. The laboratory uses a variety of sophisticated instrumentation including an Atomic Absorption Spectrometer for low level metals analysis, ion chromatography for drinking water and groundwater nutrients analysis, UV spectrophotometry for a variety of colorimetric analytical methods, and a purge and trap analyzer for measuring low levels of disinfectant by-products. Our support equipment includes a variety of incubators and ovens that must maintain tight temperature controls.

The laboratory staff performs or contracts out regular preventative maintenance on the instrumentation and equipment to keep them performing well and to lengthen their service life. However, instrumentation can become obsolete as improvements to the technology continue at a rapid pace, and replacement becomes necessary. This program will fund replacements that are outside the scope of the operating budget. Planning ahead to fund these large purchases through capital reserves, is the mission of this program.

In FY 24, the Ion Chromatograph will be due for replacement. The current instrument was purchased in 2011 and the autosampler has been in service since 2004. This version of the instrument is no longer manufactured and will be difficult to have serviced and use any software upgrades with the older instrument. In FY 25, the TTHM analyzer is due for replacement. This instrument was purchased in 2014 and needs to be upgraded for Windows 10 software. In FY26, the Atomic Absorption Spectrometer is due for replacement. This instrument is used for both wastewater, drinking water and groundwater sample analysis of low level metals. The cost for replacement of this instrument will be split between water and sewer funds.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition		39,000	50,000	73,000				162,000
Other								0
TOTAL	\$0	\$39,000	\$50,000	\$73,000	\$0	\$0	\$0	\$162,000

FINANCIAL PLAN

FUNDING								
Current Revenue		39,000	50,000	73,000				162,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$39,000	\$50,000	\$73,000	\$0	\$0	\$0	\$162,000

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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 Fund TOC	187
Equipment CIP Overview & Summary	188-189
Equipment Fund Capital Reserve Summary	
Fleet Equipment Capital Reserve	190
Equipment Fund Multi-Year Projections	191
Equipment (Fleet) Fund Projects	
• Equipment Replacement Program	192
• Fleet Services Roof Replacement Project	193
• Fleet Services Building Assessment Project	194
• Fleet Services Building Upgrade Project	195
• Fleet Services Building Fire Suppression Project	196
Equipment Replacement Schedule	197-202

Equipment Fund (Fleet Services)

The rolling stock supplied and serviced by the Fleet Division is a fundamental component of the infrastructure necessary to provide government services. Without the basic ability to transport people and access to equipment, there would be no ambulance service, police response, streets plowing, 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, one lead Mechanic, and three 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, reliable, 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. An example of Fleet Services innovation is the replacement of a thirty (30) year old asphalt reclaimer that operated on propane that was replaced with a reclaimer that runs on the City's B20 biofuel reducing downtime due to fewer mechanical issues associated with propane operation as well as easy access to the fuel to power the reclaimer.

The Fleet Services Division maintains a diesel fuel station at 330 Marlboro Street, which had a technological update in 2018.

In 2021, the Fleet Division converted the outdated wash bay into a service bay that can fit the City's fire apparatus. In FY23, 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. It is planned to replace the leaking roof. Several years out is the proposal in to install a fire alarm panel and fire suppression system to prevent catastrophic loss in the event of a fire, and in the latter years of the current CIP is a placeholder to upgrade the Fleet Services building to accommodate the servicing needs of vehicles of the future (likely electric).

Equipment (Fleet) Fund

2023 - 2029 Capital Improvement Program Summary

Project Name	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	TOTAL
CR Appropriation: Equipment Replacement	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 4,375,000
Equipment Replacement Program	607,746	688,965	604,011	570,566	654,569	660,922	608,000	4,394,779
Fleet Services Building Assessment Project	70,000	-	-	-	-	-	-	70,000
Fleet Services Building Upgrade Project	-	-	-	-	-	70,000	300,000	370,000
Fleet Services Building Fire Suppression Project	-	10,000	90,000	-	-	-	-	100,000
Fleet Services Roof Replacement Project	109,178	-	-	-	-	-	-	109,178
TOTAL CAPITAL PROGRAM	\$ 1,411,924	\$ 1,323,965	\$ 1,319,011	\$ 1,195,566	\$ 1,279,569	\$ 1,355,922	\$ 1,533,000	\$ 9,418,957

PROJECT FUNDING DETAIL

Reserve Funded Projects

Equipment Replacement Program	\$ 607,746	\$ 688,965	\$ 604,011	\$ 570,566	\$ 654,569	\$ 660,922	\$ 608,000	\$ 4,394,779
Total: Reserve Funded Projects	\$ 607,746	\$ 688,965	\$ 604,011	\$ 570,566	\$ 654,569	\$ 660,922	\$ 608,000	\$ 4,394,779

Projects Funded with Debt

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

Capital Reserve Appropriations

Capital Reserve: Equipment Replacement	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 4,375,000
Total: Capital Reserve Appropriations	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 625,000	\$ 4,375,000

Projects Funded with State Grant

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

Projects Funded with Cash

Fleet Services Building Assessment Project	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,000
Fleet Services Building Upgrade Project	-	-	-	-	-	70,000	300,000	370,000
Fleet Services Building Fire Suppression Project	-	10,000	90,000	-	-	-	-	100,000
Fleet Services Roof Replacement Project	109,178	-	-	-	-	-	-	109,178
Total: Projects Funded with Cash	\$ 179,178	\$ 10,000	\$ 90,000	\$ -	\$ -	\$ 70,000	\$ 300,000	\$ 649,178

Subtotal: Uses of Cash	\$ 804,178	\$ 635,000	\$ 715,000	\$ 625,000	\$ 625,000	\$ 695,000	\$ 925,000	\$ 5,024,178
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(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM	\$ 1,411,924	\$ 1,323,965	\$ 1,319,011	\$ 1,195,566	\$ 1,279,569	\$ 1,355,922	\$ 1,533,000	\$ 9,418,957
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New Cash Requirement FY 23-29: Reconciliation

Total: Uses of Cash	\$ 804,178	\$ 635,000	\$ 715,000	\$ 625,000	\$ 625,000	\$ 695,000	\$ 925,000	\$ 5,024,178
Use of Retained Earnings/Project Balance	-	-	-	-	-	-	-	-
New Funds Needed	\$ 804,178	\$ 635,000	\$ 715,000	\$ 625,000	\$ 625,000	\$ 695,000	\$ 925,000	\$ 5,024,178

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>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>	<u>FY28</u>	<u>FY29</u>
<u>Proposed Project Expenditures</u>							
Equipment Replacement	(607,746)	(688,965)	(604,011)	(570,566)	(654,569)	(660,922)	(608,000)
Total Expenditures	(\$607,746)	(\$688,965)	(\$604,011)	(\$570,566)	(\$654,569)	(\$660,922)	(\$608,000)
<u>Proposed Revenues</u>							
Appropriation - Current Revenues	625,000	625,000	625,000	625,000	625,000	625,000	625,000
Estimated Investment Earnings	158	62	94	175	131	78	103
Total Receipts	\$625,158	\$625,062	\$625,094	\$625,175	\$625,131	\$625,078	\$625,103
<u>Estimated End of Year Reserve Balance</u>							
	\$105,261	\$41,358	\$62,441	\$117,050	\$87,612	\$51,768	\$68,871

Equipment Fund

2023 - 2029 Capital Improvement Program Multi-Year Projections

	ACTUAL FY20/21	BUDGET FY21/22	PROJECTED FY22/23	PROJECTED FY23/24	PROJECTED FY24/25	PROJECTED FY25/26	PROJECTED FY26/27	PROJECTED FY27/28	PROJECTED FY28/29
REVENUES									
Charges for Services	\$2,651,829	\$2,655,399	\$2,678,347	\$2,681,953	\$2,731,914	\$2,735,592	\$2,786,552	\$2,817,660	\$2,870,149
Miscellaneous	13,703	4,500	3,000	3,000	4,000	4,000	4,000	4,000	4,000
Use of (Addition to) Surplus		(151,844)							
Equipment Sales									
TOTAL REVENUES	\$2,665,531	\$2,508,055	\$2,681,348	\$2,684,953	\$2,735,914	\$2,739,592	\$2,790,552	\$2,821,660	\$2,874,149
EXPENSES									
Personnel & Benefits	\$612,546	\$654,262	\$670,619	\$687,384	\$704,569	\$722,183	\$736,626	\$751,359	\$766,386
Operating Costs	1,268,783	1,396,093	1,301,771	1,339,523	1,387,746	1,424,798	1,460,418	1,496,929	1,534,352
Depreciation	483,858	450,000	525,000	550,000	550,000	550,000	550,000	550,000	550,000
SUBTOTAL	\$2,365,187	\$2,500,355	\$2,497,390	\$2,576,907	\$2,642,314	\$2,696,981	\$2,747,045	\$2,798,288	\$2,850,738
MINOR CAPITAL	1,551	7,700	7,700	7,700	7,700	7,700	7,700	7,700	7,700
TOTAL EXPENSE	\$2,366,738	\$2,508,055	\$2,505,090	\$2,584,607	\$2,650,014	\$2,704,681	\$2,754,745	\$2,805,988	\$2,858,438
NET REVENUE (EXPENSE) ⁽¹⁾	\$298,794	\$0	\$176,258	\$100,346	\$85,900	\$34,911	\$35,807	\$15,672	\$15,711

Projected cash balance at year-end

\$568,177

\$465,257

\$480,603

\$401,502

\$361,413

\$322,220

\$262,892

\$203,603

2023 - 2029 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project/Program: Equipment Replacement Program

Project Number: 11003-A / 41M0002
 Physical Location: 330 Marlboro St.
 Type: Ongoing Program

Capital Reserve (Wholly or In Part): Equipment Replacement - page 190

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Strong Citizenship and Proactive Leadership
 CMP Vision/Strategy: Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation								0
Property/Equip. Acquisition	607,746	688,965	604,011	570,566	654,569	660,922	608,000	4,394,779
Other								0
TOTAL	\$607,746	\$688,965	\$604,011	\$570,566	\$654,569	\$660,922	\$608,000	\$4,394,779

FINANCIAL PLAN

FUNDING								
Current Revenue								0
Capital Reserve	607,746	688,965	604,011	570,566	654,569	660,922	608,000	4,394,779
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$607,746	\$688,965	\$604,011	\$570,566	\$654,569	\$660,922	\$608,000	\$4,394,779

2023 - 2029 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project/Program: Fleet Services Roof Replacement

Project Number: TBD

Physical Location: 330 Marlboro St.

Type: One-time Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT/PROGRAM 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design								0
Construction / Implementation	109,178							109,178
Property/Equip. Acquisition								0
Other								0
TOTAL	\$109,178	\$0	\$0	\$0	\$0	\$0	\$0	\$109,178

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue	109,178							109,178
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$109,178	\$0	\$0	\$0	\$0	\$0	\$0	\$109,178

2023 - 2029 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project/Program: Fleet Services Building Assessment Project

Project Number: TBD

Physical Location: 330 Marlboro St.

Type: One-time Project

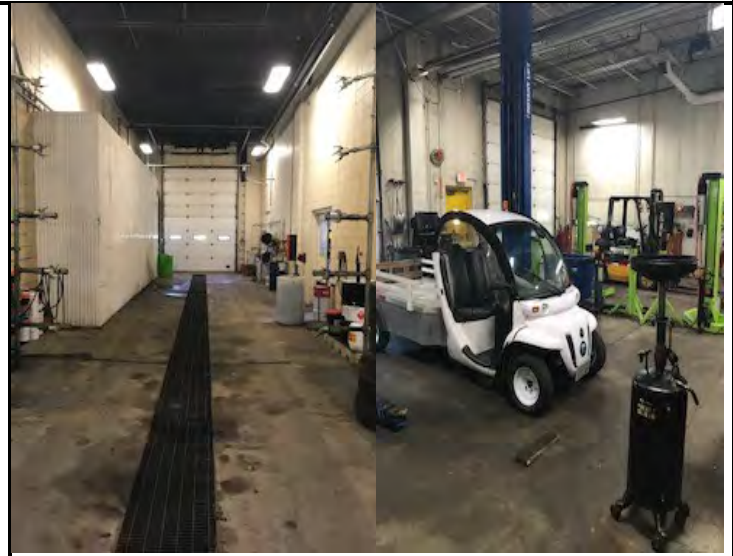
Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT/PROGRAM 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, 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.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design	70,000							70,000
Construction / Implementation								0
Property/Equip. Acquisition								0
Other								0
TOTAL	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0	\$70,000

FINANCIAL PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
FUNDING								
Current Revenue	70,000							70,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0	\$70,000

2023 - 2029 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project/Program: Fleet Services Building Upgrade Project

Project Number: TBD

Physical Location: 330 Marlboro St.

Type: New Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This page is a placeholder for potential upgrades necessary to service the types of vehicles that may appear in the Fleet beginning in FY28. We will utilize recommendations from the consulting firm to be hired in FY23 (refer to Fleet Building Assessment Project - page 194) but some capital will likely be required to accommodate the servicing of electric vehicles.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design						70,000		70,000
Construction / Implementation							150,000	150,000
Property/Equip. Acquisition							150,000	150,000
Other								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$70,000	\$300,000	\$370,000

FINANCIAL PLAN

FUNDING								
Current Revenue						70,000	300,000	370,000
Capital Reserve								0
Debt Funded								0
Federal / State								0
Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$70,000	\$300,000	\$370,000

2023 - 2029 Capital Project Funding Request Equipment Fund



GENERAL PROJECT DATA

Project/Program: Fleet Services Building Fire Suppression Project

Project Number: TBD

Physical Location: 330 Marlboro St.

Type: New Multiphase Project

Capital Reserve (Wholly or In Part): N/A

Federal / State Regulation or Law: N/A

Master Plan (CMP) Focus Area: Quality Built Environment

CMP Vision/Strategy: Infrastructure

Departmental Objective: Invest resources to maintain City fleet operations



PROJECT/PROGRAM DESCRIPTION & JUSTIFICATION

This project will install an alarm panel and fire suppression system at the Fleet Services building. This is based on a recommendation from the City's insurer Primex. The fire suppression system installed will be a non water-based system due to the nature of the material common in repair service facilities that are incompatible with water sprinkler systems.

PROJECT/PROGRAM PLAN

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	TOTAL
EXPENDITURES								
Design		10,000						10,000
Construction / Implementation			90,000					90,000
Property/Equip. Acquisition								0
Other								0
TOTAL	\$0	\$10,000	\$90,000	\$0	\$0	\$0	\$0	\$100,000

FINANCIAL PLAN

FUNDING								
Current Revenue		10,000	90,000					100,000
Capital Reserve								0
Debt Funded								0
Federal / State Grants								0
Other Sources								0
TOTAL	\$0	\$10,000	\$90,000	\$0	\$0	\$0	\$0	\$100,000

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	DEPT/DIV	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029
STAFF CARS												
			REPLACE AT 7Yrs./60,000									
1608	2016	\$23,080	Toyota RAV4	P3	Pool Car							\$30,000
1609	2016	\$23,080	Toyota RAV4	P1	Pool Car							\$30,000
1702	2017	\$22,995	Ford Fusion	P2	Pool Car					\$29,893		
2110	2012	\$16,585	Ford Focus	110	Assessing			\$21,560				
3118	2014	\$18,559	Ford Fusion	118	Health/Code		\$24,126					
09C1	2009	\$29,879	Ford Explorer	102	Parks & Rec			\$38,842				
7114	2017	\$22,995	Ford Fusion	114	Code					\$29,893		
19C2	2009	\$37,336	Suburban	19C2	Fire							
19C1	2017	\$54,000	Chevy Tahoe	19C1	Fire					\$70,200		
19C3	2016	\$42,000	Ford F350	19C3	Fire	\$51,304						
19J3	2012	\$34,970	Ford Interceptor	19J3	Fire							
0973	2009	\$29,879	Ford Escape	57	Engineering			\$38,842				
1001	2009	\$29,879	Ford Escape	112	Health/Code					\$46,400		
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							
1537	2015	\$28,000	Ford Interceptor	18	Highway							
VANS												
			REPLACE AT 10 YEARS/70,000 old									
1370	2013	\$16,353	Ford E150	70	Water Meter					\$23,596		
1108	2011	\$17,392	Ford E150	8	Water Meter							
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							

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	DEPT/DIV	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029
MARKED POLICE			REPLACE AT 60,000/3YEARS									
1736	2017	\$37,500	Ford Interceptor	1136	Cruiser	\$84,358	\$86,888	\$132,000	\$135,960	\$140,000	\$92,000	\$96,000
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							
PD UNMARKED/STAFF CARS			REPLACE AT 80,000/ 6 YEARS									
4121	2014	\$20,595	Ford Fusion	1121	Unmarked	\$26,773						
1829	2018	\$27,570	Ford Interceptor Util.	1129	marked	\$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				\$47,700
1823	2018	\$21,000	Ford F150	1123	PD Staff							
1222	2012	\$20,528	Dodge Caravan	1122	PD Staff							
1624	2016	\$20,910	Toyota RAV4	1124	PD Staff				\$27,183			
DUMP TRUCKS			REPLACE AT 17 YEARS									
35/48/50 GVW												
2006	2020	\$188,000	International	6	Highway							
0526	2005	\$133,600	Freightliner	26	Highway		\$216,876					
0527	2005	\$133,600	Freightliner	27	Water	\$210,560						
0965	2009	\$151,000	Freightliner	65	Highway						\$242,816	
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							
2002	2020	\$188,000	Inter. Dump	2	Highway							
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							

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	DEPT/DIV	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029
1 TON TRUCKS												
10,000 GVW			REPLACE AT 60,000/10 YEARS									
2011	2020	\$52,000	Ford F450	11	Highway				\$75,860			
1724	2017	\$60,000	Ford F450	24	Highway				\$75,860			
1113	2011	\$23,967	Ford F350 Dump	13	Water							
1774	2017	\$60,000	Ford F450	74	Highway							
1923	2019	\$75,000	Ford F450	23	WWTP							
4134	2014	\$33,562	GMC K3500	134	Cemetery		\$54,147					
0105	2001	\$25,000	Ford E350 Stepvan	54	Water				\$50,000			
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							
06AP3	2006	\$22,500	Ford F350	73	Recycle							
1119	2011	\$27,659	Ford F350	19	Fleet							\$60,000

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	DEPT/DIV	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029
3/4 TON TRUCKS			REPLACE AT 80,000/10 YEARS									
6130	2016	\$30,000	Ford F250	130	Parks							\$50,000
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						\$50,000	
0904	2009	\$22,232	Ford F250	104	Parks							
1116	2011	\$20,483	Ford F250	16	Water	\$57,502						
1/2 TON TRUCKS			REPLACE AT 70,000/10 YEARS									
4103	2014	\$31,348	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			REPLACE AT 70,000/10 YEARS									
0314	2003	\$15,496	Ford Ranger		Water							
0502	2005	\$14,707	Ford Ranger		Engineering	\$19,481						
SIDE WALK PLOWS			REPLACE AT 10 YEARS									
1350	2013	\$54,000	Wacker WL 30	50	Highway							\$82,000
1551	2015	\$63,159	Bobcat Toolcat	51	Highway						\$82,106	
0653	1999	\$52,000	Trackless (sidewalk plow)	53	Highway			\$140,000				
0752	2007	\$82,357	Trackless (sidewalk plow)	52	Highway						\$140,000	
0649	2006	\$110,000	Trackless (sidewalk plow)	49	Highway				\$140,000			

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	DEPT/DIV	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029
BACKHOE			REPLACE AT 12 YEARS									
1541	2015	\$76,000	John Deere 310SK	41	Highway							\$98,800
1639	2014	\$116,000	Hitachi Excavator	39	Water							
PAYLOADERS			REPLACE AT 15 YEARS									
2017	2001	\$172,000	John Deere Payloader	17	Transfer Station							
2034	2020	\$162,000	Hitachi	34	Highway							
1431	2014	\$142,000	SDLG Payloader	33	Highway							
0306	2003	\$161,802	Case Payloader	AP5	Airport							
1805	2018	\$61,595	Kubota	Kubota	Recycle							
TRACTORS			REPLACE AT 10 YEARS									
2020	2020	\$110,000	John Deere	AP6	Airport							
066AP	2006	\$106,472	Ford Versatile Tractor	40	Highway	\$100,000						
8105	2018	\$31,000	Mahindra	105	Parks & Rec					\$54,000		\$55,000
9132	2019	\$34,000	Kubota Tractor	132	Cemetery							
1429	2014	\$61,000	Kubota Tractor	29	WWTP							
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 skidsteer		Highway	\$41,925						
1455	2014	\$45,000	Volvo MC115C skidsteer		Solid Waste							\$58,500
106	2020	\$119,649	Toro Mower	Mower	Cemetery							
6135	2016	\$10,600	Kubota Tractor	135	Cemetery				\$15,867			
2009	2020	\$42,000	JohnDeere	AP7	Airport							
SPECIALTY EQUIPMENT			REPLACE AT 10 YEARS									
1528	2015	\$307,000	Freightliner VacCon	28	Water/Sewer							
0317	2003	\$204,638	Sterling VacCon	36	Highway							
16AP9	2016		Oshkosh Snow Blower	AP4	Airport							
AIR COMPRESSORS			REPLACE AT 10 YEARS									
9503	1990	\$10,000	Ingersoll Compressor	133	Cemetery							
9714	1997	\$10,000	Lindsay Compressor	88	Highway			\$29,760				
1586	2015	\$13,730	Atlas Compressor	86	Water							
0589	2000	\$10,000	Air Compressor	89	Highway							

VEHICLE AND EQUIPMENT 7 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	DEPT/DIV	FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029
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				\$32,000			
9410	1994	\$18,700	Forklift		Fleet Services		\$24,310					
9818	1998	\$3,000	Trailer for Highway		Cemetery							
9924	1999	\$8,200	Hydro Tek Steamer		Highway							
0113	2001	\$21,208	Asphalt Reclaimer		Highway							
9301	1993	\$21,208	Asphalt Reclaimer		Highway	\$25,960						
8210	1982	\$20,000	Trailer		Highway							
0010	2000	\$5,800	Miller Curber		Highway							
0022	2000	\$33,000	Crimline 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	Stows Roller		Parks & Rec							
9014	1990	\$20,000	Snogo 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		\$37,750					
			Total		Total	\$607,746	\$688,965	\$604,011	\$570,556	\$654,569	\$660,922	\$608,000
						FY 2022/2023	FY 2023/2024	FY 2024/2025	FY 2025/2026	FY 2026/2027	FY 2027/2028	FY 2028/2029

APPENDIX

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APPENDIX A

This appendix includes General Fund projects that are NOT included in the proposed FY23-FY29 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

FY31 19A1 Replacement with an estimated cost of \$327,000.

The ambulances remain on a 9-year replacement schedule. This is an ongoing CIP Replacement project to maintain our fleet. Current trade-in values is estimated at \$10,000 on the units at the end of a 9-year cycle.

Apparatus Replacement

FY31 Engine 1 (purchased 2015) estimated cost \$856,000

FY33 Quint Ladder 2 (purchased 2017) estimated cost \$1,550,000

FY41 Tower Ladder (purchased in 2019) estimated cost \$2,160,000

Brush Trucks- Brush 1 and Brush 2 Replacement

Brush 1 was refurbished in FY21 and Brush 2 will be completed in FY23. Projected to get 7-10 years out from the upgrades made. Projected replacement cost \$210,000 to replace each unit.

Central Station SCBA Fill Station

This unit is used to fill our SCBA bottles and cascade bottles on Rescue 1 and Tower Ladder 1. Our SCBA bottled air is used daily on investigations and mitigation of calls in toxic environments. The Central Station unit was purchased via grant in 2012. Unit is serviced annually and requires independent air quality testing annually. The projected cost of replacement is \$60,000.

Replacement life span is 15-20 year depending on parts availability.

Mobile Radios

The current mobile radios were recently replaced over three years starting in FY15 and completed in FY17. The department currently has 25 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 FY30. 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 \$112,500.

Replacement Life Span = 10-15 years

Multi Gas Meters

This program would support all meters used for monitoring for toxic environments. This is currently supported by grant funding allocated to the Hazardous Materials Response Team but we are listing it in case the funding were to stop. Service life of the meters is 5-7 years currently.

Average cost = \$4,000

Portable Radios

The current mobile radios were replaced over a four-year program that started in FY17 and completed in FY20. For the same reasons as the mobile radio replacement project listed above, the replacement of these radios is expected for FY30-FY31 if we were to purchase over a multi-year period as we are now. Purchasing of equipment like this over multi-years 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 = 10-12 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 FY32 depending on their condition and availability of parts. The cost of the units is not known, but the Central Station system is projected over \$75,000 due to its size. Each generator received annual maintenance and testing.

Replacement Life Span = 20-25 years

Technical Rescue Equipment

This program would support the technical rescue equipment in case grant funding wasn’t available for replacement. Struts, Air Bags, Air Cart, SABA with Communications Equipment, Boat, All Terrain Unit- Off Road. More information needs to be put together for this and will be added once assessed.

Thermal Cameras

This is to support the current eight thermal units in service. The current units range in age of new to five years old (5 units are new, 3 units are five years old) and we have been fortunate to support through grant funding. Service life span is 7-10 years. Average cost per unit with charger is \$6,000.

PARKS & RECREATION

Disc Golf

A 9-hole disc golf course was brought forward to the MSFI Committee on October 22, to utilize the Wheelock Campground. The design phase will be completed in 2022 as part of a Concept Plan to redevelop the Wheelock Park campground along with the dog park utilizing past CIP funding related to the repurposing of the campground. A fundraising goal of \$10,000.00 has been established to complete the project shortly after identification of the course. Should this location not be chosen, a continued search to build a course will be explored at other parks and the Dillant Hopkins Airport. Although the fundraising goal is significantly less than other donated amenities, the impact of a new facility would require additional maintenance and upkeep.

Dog Park

The dog park discussion was brought forward to City Council on October 7, 2021, with further discussion to utilize the Wheelock Campground at the MSFI Committee meeting on October 22, 2021. The design phase will be completed in 2022 as part of a Concept Plan to redevelop the Wheelock Park campground along with the disc golf course utilizing past CIP funding related to the repurposing of the campground. This process will help the group identify construction cost and solidify their fundraising goal. The group has begun to form a 501c3 non-profit for long-term sustainability toward building a park within the City. Although the fundraising goal is significantly less than the skate park, the impact of a new facility would require additional maintenance and upkeep.

Robin Hood Park Playground Building

Built in the 1960s, this is a small cement block building used for the summer playground program, with a seasonal restroom facility. The building also houses an oil-fueled furnace to maintain warm temperatures in the winter and to keep the hoses from freezing for ice-making operations. The 8-week summer program hosts approximately 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 = \$300,000

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 the introduction of LEDs, and 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.

Tennis Courts = \$90,000 in addition, painting additional lines to the courts for pickle ball would significantly increase the use of the facility.

Durling Field = \$185,000

O'Neal Field = \$275,000

POLICE DEPARTMENT

Body-Worn and In-Car Video Camera Systems

Assuming these systems are purchased and in operation near the end of FY22, the next replacement cycle would be FY27 or FY28, dependent on the initial contract we sign with the vendor (5 or 6 years).

Estimated FY27 Cost = \$534,750

Estimated FY28 Cost = \$550,793

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 was replaced in CY2020 with funds outside the CIP, as the cost at that time was not within the CIP parameters. This system, or a similar system, is required not only for best practices and Officer Safety reasons but as part of our National Accreditation (CALEA 81.2.8). The next cycle for a replacement would be in FY27, which is included in this CIP, and then again in FY33.

Estimated FY33 Cost = \$41,300

Mobile Radios

Our current CIP contains a request to replace our 27 mobile radios over a three-year period from FY23-FY25. As with the portables radios, the vendor recommends a 7-10 year life span. Thereafter parts, service, and support stop. If our mobile radios are replaced between FY23-FY25 the next replacement cycle, using a nine-year mark would begin in FY32.

Estimated FY32-FY34 Cost = \$175,754

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 was via the FY19-FY21 CIP. 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 FY28.

Estimated FY28-FY30 Cost = \$271,920

INTERNAL SUPPORT

FACILITIES

350 Marlboro Street – Public Works

In 2003, the City moved its Public Works operations from 580 Main Street to 350 Marlboro Street, providing significantly more space to house the operational equipment needed for maintenance of City infrastructure. Once a food distribution center, the 60,000 square feet of operational maintenance area provided the perfect location for expanding City needs. However, when the construction occurred and the City moved, the floor was not properly sealed to maintain the concrete and allow proper drainage for the salt and sand, specifically in the winter months. The need to have the floor repaired and properly sealed is necessary, before the floor needs to be completely replaced.

In addition, all the current exit doors need to be replaced, along with all the bay doors and sensors. In addition, the conversion to LED light fixtures throughout the building must continue. The geo-thermal heat pumps installed in 2004 with a 20-year lifecycle are in need of replacement.

Estimated Cost = \$250,000

Building Security Systems

The City continues to develop and implement security camera and building entrance technologies at all facilities to provide secure and controlled spaces. Current technologies change faster than the implementations and the Facilities staff has slowly upgraded previous installed video systems. Funding is needed to upgrade certain facilities for higher resolution and DVR capacity. In addition, long term asset management includes electronic entries for City facilities reducing key issues, controlling access and increasing security.

Facility Video Security systems/per facility = \$20,000
Facility Electronic Key systems/per facility = \$20,000

Facility Asset Inventory Update

In 2013, the City accepted a Facility Asset Inventory report from EMG Corporation. The report included the following City facilities: Airport, City Hall, Library, Municipal Services Building, Recreation Center, Fleet Services, Robin Hood and Wheelock Park buildings, Cemetery Operations, Transfer Station and Wastewater Treatment Plant. The Parks and Facilities teams have utilized these reports to develop a long term Capital Planning program. However, the pricing in the report is now dated. A small number of items that have completed have been removed, including the Airport Administration Building, the renovation of the Library Annex, and the installation of new boilers in City Hall and the Police Department. Updating the report will provide increased direction in managing operating budgets, energy and sustainability initiatives, and future CIP development.

Estimated Cost = \$65,000

INFORMATION TECHNOLOGY

Ancillary Network Systems Replacement, Support and Maintenance

Various City departments have procured a number of systems that have come to require network and server support, including, for example, the HVAC and video surveillance systems. Because the software associated with these tools are not managed by the IT Department, IT staff have not included the long-term replacement or ongoing cost of supporting these systems in any budget plan. In addition to long-term reliability of the hardware required by these important services, IT staff is particularly concerned about risks associated with the associated software solutions that reside on the City network, servers and computers. It is imperative that the systems be patched, monitored and regularly replaced in order to meet minimum performance and security expectations. A budget plan would help identify the minimum requirements, responsibilities and costs.

Cybersecurity Monitoring and Detection Device and Services

The City is presently utilizing multiple cybersecurity resources to identify, protect, detect, respond and recover to and from cybersecurity risks. One of the systems presently in use is provided via a three-year trial program funded by a grant received by the State of NH that provides multiple NH municipalities with hardware devices along with monitoring and detection services. The 2023-2029 Network Equipment Replacement program does not include the cost of continuing or replacing this particular equipment or associated services. Over the next two years, IT staff will be able to determine if this system and others presently being evaluated will be important in long-term cybersecurity planning for the City. City cybersecurity requirements will have a budget impact, and IT staff will provide organized budgetary requirements during the operating budget process. Depending on solutions that become available over time, there may also be a CIP budget impact in future years. It is difficult to identify a budget figure from year to year due to the fact that solutions are changing and evolving rapidly based on global demand and technological progress – all of which is driven by consistent advancement in the sophistication of cyber-attacks.

Supply Chain Cost Impacts

The proposed IT Department CIP projects and programs use today's costs based on recent purchases and vendor quotations. The volatility in pricing of electronics as well as other types of hardware and equipment required for all types of business operations is unpredictable. If costs continue to rise and global supply chain problems are not resolved, the projected costs of network, server, SAN, and telephone equipment could increase beyond the budget amounts requested. The proposed budgets do not include any buffer to accommodate this risk.

INFRASTRUCTURE

AIRPORT

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 revenue generated from a city-owned hangar project.

Estimated Cost = TBD

Hex Hangar Repairs

Constructed more than 40 years ago, this hangar came to be owned by the City through a reversion contained in the long-term land lease. Now that it is owned by the City, maintenance of this building is needed. Work to be considered includes a new roof, electrical wiring to meet code, new hangar doors and exterior painting. There is no federal or state funding for this project.

Estimated Cost = \$150,000

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 Swanzey 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

Old Airport Fire Station Building

The former fire station at the airport continues to be used for equipment and de-icer storage, and other equipment seasonally. The building is heated minimally due to the need to keep the de-icer at minimum temperatures. The overhead doors have significant deterioration and should be replaced in order to preserve the useful life of this necessary structure. There is no federal/state funding available for this repair.

Estimated Cost = \$8,000

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.

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 FY28. The acquisition of navigation easements and obstruction clearing needs to be completed prior to the installation of the PAPI equipment.

Estimated Cost = \$60,000

Utility Task Vehicle

I recommend that the City evaluate and plan for the acquisition of a UTV (Utility Task Vehicle) for use at the airport. A UTV, which costs approximately half of a new pick-up truck, would be used on many airport projects as a vehicle is necessary to cover the near 1,000 acres of property. This UTV would also be used to travel to the dozen safety beacon locations scattered in the hills surrounding the airport. In the past, we have rented an all-terrain vehicle. The correct UTV could have sufficient space capacity to carry tools and staff to airport locations vs. using a large pick-up that frequently must sit, with strobes on, while maintenance tasks are underway. A UTV is just more economical in all ways.

Estimated Cost = \$15,000 (used)

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 New Hampshire Department of Transportation funding.

Beaver Brook Channel Repairs

Public Works Staff recently observed deterioration in the channelized portion of Beaver Brook, between Spring Street and Harrison Street. The damage includes spalled and cracked concrete, joints missing the required water stop, and wall sections that have settled or rotated out of proper alignment. Over the next 2 years, the Engineering Division will evaluate the full scope of repairs that are needed. We anticipate that this project will be proposed as part of the next CIP update.

Bridge Preservation

The City's "Bridge Repair & Replacement" program has been a CIP staple for many years, and will continue to be needed for the foreseeable future. That program allows for the major rehabilitation or complete replacement of bridges that have deteriorated to the point of being added to the State's "Red List". Those projects are eligible for funding under the NHDOT's State Bridge Aid program (80% / 20% cost share). Unfortunately, no such funding exists for preventative maintenance or preservation work. Some of our bridges are in good to fair condition, but require repairs to prevent further deterioration. A "Bridge Preservation" program would allow us to perform early interventions and prevent these bridges from going onto the "Red List".

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 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 for 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

APPENDIX B

This appendix includes a discussion of the Sewer Fund and Water Fund capital projects that are scheduled for FY30 and beyond. Also included is a brief discussion of sewer 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

Advanced Wastewater Treatment

The City recently received a draft updated discharge permit for the wastewater treatment plant from the EPA. As written, the permit would require modifications of our treatment process to significantly reduce the permissible levels of Aluminum in our plant's effluent. The nature and cost of those changes will not be known until the permit is finalized and treatment options are evaluated. We anticipate this project will be included in the FY25-31 CIP update.

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 2019. The City completed inflow and infiltration work in the southeastern area of the City and this information is providing the data needed to complete a rating similar to the risk and consequence analysis performed for water mains. The FY23-29 Capital Improvement Program (CIP) funds the replacement or lining of approximately 5.4 miles of sewer mains over the 7-year period (0.8 miles per year). With more than 94 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 122 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 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.

While the current CIP provides for greater investment in sewer mains than prior editions, Public Works recommends the rate of repair/replacement be increased to not less than 1.0 miles per year.

West Street Sewer Improvements

The addition of the West Street Corridor Improvements project to the NHDOT's Ten Year Plan will provide an opportunity to update utility infrastructure along this gateway. We anticipate that this work will be programmed under the "Sewer Improvements Program" in FY32.

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, several of the highest-ranking mains are scheduled for replacement over the 7 years in the FY23-FY29 CIP. The City owns more than 102 miles of water mains and is scheduled to replace or line approximately 4.4 miles of water main -the equivalent of 3,300 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 163 years.

While failure to replace water mains does not guarantee there will be catastrophic main failure and severe consequences, it certainly increases that risk. The Public Works Department recommends that the City increase the current funding levels for water main replacement. Without additional investment in the water distribution system, we should expect to see more frequent occurrences of water main breaks and service interruptions.

West Street Water Improvements

The addition of the West Street Corridor Improvements project to the NHDOT's Ten Year Plan will provide an opportunity to update utility infrastructure along this gateway. We anticipate that this work will be programmed under the "Water Main Improvements Program" in FY32.

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