

CAPITAL IMPROVEMENT PLAN FY2018 – FY2022 Office of the Town Manager



TOWN OF NEEDHAM
THE AREA 5 MILES SQUARE NORTH OF
CHARLES RIVER" ASSIGNED TO NEEDHAM
IN 1636 BY THE MASS GENERAL COURT
WERE OBTAINED BY PURCHASE FROM THE
SOLDIERS WILLIAM KENTON, 1680, AND
JOHN WASSINGTON, SETTLEMENTS BEGAN
HERE FIRST BY JOHN HASKELL AND
6, 1701 FIRST TOWN MEETING OCT. 4, 1701
NEEDHAM SEPARATED FROM RAINBOW
TOWNSHIP AND FIRST TO BECOME THE
NEEDHAM MASS TOWNSHIP INCORPORATED
AS THE TOWN OF WILLESTON IN 1861

Executive Summary

Section 1

EXECUTIVE SUMMARY

The Recommended Capital Plan

The Town Charter requires that the Town Manager, after consultation with the Board of Selectmen, submit in writing to the Board of Selectmen a careful, detailed estimate of the recommended capital expenditures showing specifically the amount necessary to be provided for each office, department and activity and a statement of the amounts required to meet the debt service requirements or other indebtedness of the Town. This plan includes the proposed FY2018 Capital Budget, which is recommended to the Finance Committee and ultimately to Town Meeting for consideration. The projects presented for FY2019-FY2022 reflect an assessment by municipal departments and the School Committee of future capital needs and are primarily shown for planning purposes. While many of these projects may ultimately be recommended for funding, the plan is a fluid one, and projects may be added and deleted from the list as circumstances change. The proposed financing plan for the recommended FY2018 capital budget is shown in Table 1.

Table 1
FY2018 Proposed Financing Plan

Fund	Cash	Debt	Total
General Fund Tier 1	\$4,239,892	\$4,820,000	\$9,059,892
General Fund Tier 2	\$1,017,575	\$9,000,000	\$10,017,575
General Fund	\$5,257,467	\$13,820,000	\$19,077,467
Community Preservation Fund	\$3,745,000	\$12,000,000	\$15,745,000
Solid Waste Enterprise	\$710,342		\$710,342
Sewer Enterprise		\$600,000	\$600,000
Water Enterprise	\$471,074	\$1,300,000	\$1,771,074
Total (all funds)	\$10,183,883	\$27,720,000	\$37,903,883

FY2018 Highlights

A capital expenditure is defined by the Needham General By-laws as the acquisition, construction, renovation, betterment, or improvement involving land, public buildings and facilities; water and sewer system laterals, mains and appurtenances; and equipment or vehicles; provided that the cost is \$25,000 or more and the improvement will have a useful life of five years or more; or any planning, feasibility, engineering or design study in preparation for such capital expense. Highlights in the FY2018 Plan include the following:

- The General Fund capital plan is financed primarily by cash and debt. Recurring requests for on-going programs and replacement schedules represent a significant portion of the available cash capital allocation – 55% of the General Fund cash financed category for fiscal year 2018.
- The transition of the Public Works Infrastructure Program from a predominantly debt financed program to a cash-based program over five years began in FY2016. The FY2018 Capital plan includes \$500,000 in debt financed Public Works Infrastructure. Effective FY2020, the program will be funded only by cash appropriation.
- The consolidation of the General Fund and Enterprise Fund Fleet Replacement Program began FY2015, and the current plan reflects updated replacement schedule matrices. The goals of the fleet replacement program are to replace vehicles before service delivery is negatively impacted, to maximize vehicle availability for all user departments, to minimize costs associated with vehicle downtime and emergency maintenance, to take advantage of opportunities to implement new technology geared toward fuel conservation and reduced emissions, to promote safety, reliability and operational efficiency, and to enhance the public image of the Town's fleet.
- The FY2018 Capital Plan includes continued focus on the buildings in the facility financing plan proposed for renovation and/or reconstruction in the near future: replacement of the Hillside School, Rosemary Recreation Complex, Public Safety Building, Fire Station 2, DPW Complex, Needham High School, Emery Grover, and the Memorial Park Complex. The Hillside School project has been funded and is underway. The Rosemary Recreation Complex will be presented to the 2017 Annual Town Meeting for funding. Feasibility for the public safety buildings is on-going and an additional appropriation will be sought at the 2017 Annual Town Meeting to complete the schematic design. A full design appropriation is planned for the fall of 2017. The DPW feasibility study is complete, and a request for the first phase of the construction project – the replacement of the fueling station – is proposed for funding at the 2017 Annual Town Meeting. The next phase of the project is the construction of a storage facility and a modest reorganization of the RTS facility, which is planned for the fall of 2017. Feasibility studies for the Memorial Park Building and the High School are underway.

Capital Planning 101

Capital Improvement Plan

The Capital Improvement Plan (CIP) is a multi-year tool used to coordinate the financing and timing of major public improvements for the Town of Needham. It contains a list of capital projects proposed for the Town within the next five years and reflects the recommendations of citizens, boards, commissions, and staff from each of the Town departments. The CIP identifies each proposed project and presents a summary description, estimate of cost, method of financing, and a schedule of implementation. Capital planning helps ensure that the community is positioned to:

- preserve and improve its basic infrastructure through construction, rehabilitation and maintenance;
- maximize the useful life of capital investments by scheduling major renovation, rehabilitation, or replacement at the appropriate time in the life-cycle of the facility or equipment;
- identify and examine current and future infrastructure needs and establish priorities among projects so that available resources are used to the community's best advantage; and
- improve financial planning by balancing needs and resources and identifying potential fiscal implications.

Operating Budget and Capital Budget

The Town's capital budget and operating budget are developed separately but are closely linked. The annual operating budget provides for general municipal service delivery, including personnel, supplies and other contractual services, and certain capital equipment. Most appropriations in the annual operating budget are for a single fiscal year. In contrast, the capital budget is a multi-year budget designed to expend monies which add to the physical assets of the Town. Capital projects typically require expenditures which take place beyond a single fiscal year, funding with debt because of significant costs to be shared by current and future beneficiaries, systematic acquisition over an extended period of time in order to implement major operating systems or programs, and scheduled replacement or maintenance of specific elements of physical assets.

Notwithstanding the differences between the two, the operating and capital budgets are closely interwoven inasmuch as operating costs related to capital projects are estimated and incorporated into the operating budget. Many capital projects will have an impact on operating costs once constructed. Town practice is to project the net effect a capital project will have on the operating budget. While maintenance and repair costs may be lower in a new facility, larger and more modern facilities are often more costly to operate. In addition, since many capital projects are financed through municipal debt, repayment of that debt becomes part of the operating budget and is incorporated into the Town's forecasting models. The necessity to incur some degree of debt in order to finance the CIP carries with it the burden to effectively manage that debt within the Town's financial resources.

Best Practices

In developing the FY2018 budget operating and capital budgets, the following best practices have been followed in order to produce a budget that preserves the Town's fiscal sustainability.

1. Current revenues must be sufficient to support current expenditures.
2. The operating and capital budgets must be developed in conformance with the Town's comprehensive financial policies and must not be reliant on one-time revenue or unsustainable practices.
3. The five year Pro Forma budget must be updated on an annual basis to ensure that the underlying assumptions are adjusted based upon changing conditions and data.
4. Debt must not be used to fund on-going operating expenses, and will only be issued for capital improvements greater than \$250,000 with a useful life of five years or more.
5. The use of Free Cash to fund operations will be minimized by limiting such use to no more than 2% of the prior year's appropriated operating budget, or the actual turn back, whichever is lower.
6. Adequate contingency funds must be maintained.
7. Sufficient maintenance and replacement funds will be allocated to ensure that capital facilities and equipment are properly maintained.
8. The operating and capital budgets must be resilient – allowing the Town to maintain existing service levels, withstand typical local and regional economic disruptions, and meet the demands of natural growth, decline, and change.
9. The operating and capital budgets must be sustainable – meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Budget Priorities

The primary goal of the Board of Selectmen in consideration of the FY2018 operating and capital budgets is the maintenance and optimization of existing Town services. In addition, mindful of the availability of revenue for appropriation, the Board has set the following priorities for FY2018:

1. Support for items that contribute to the achievement of Townwide goals and objectives.
2. Support for a five to ten year plan for the renovation, reconstruction and/or preservation of the Town's capital assets in the most prudent, realistic, and efficient manner.
3. Support for initiatives that contribute to financial sustainability, including the maintenance of a debt service plan that balances capital needs with the Town's ability to pay, identification of alternative funding sources for traditional cash capital needs, evaluation of financing alternatives, and alignment of capital and maintenance needs with appropriate funding sources.
4. Support for initiatives aimed at achieving greater coordination and efficiency among Town departments, and providing adequate resources to address identified service delivery and general administrative needs of the Town in a cost effective manner.

Financial Benefits of Capital Planning

Needham's capital planning initiatives have contributed to the successful achievement and maintenance of its AAA bond rating from Standard and Poor's. This bond rating places Needham in the top tier of communities in Massachusetts and allows the

Town to borrow at a lower interest rate. Investors and bond rating agencies stress the value of a CIP for a municipality seeking to borrow funds. The absence of a rational, long-term planning instrument would weigh against the bond rating assigned to Needham by rating agencies and the result would be higher interest rates on bond issues and the diversion of tax dollars to pay for the interest on loans. Another financial benefit of the capital planning process is the avoidance of poorly timed projects. Good planning can ensure that capital improvement efforts are coordinated. In addition, significant savings can accrue to taxpayers when major capital financing is coordinated so that bond issues are sold infrequently, and at times during the economic cycle when the Town can take advantage of low interest rates.

Development of the CIP

The process for preparing the FY2018 - FY2022 Capital Improvement Program and its associated FY2018 Capital Budget involves active participation by the Town Manager, Assistant Town Managers, and requesting departments, boards, committees and commissions. The Capital Budget is prepared in the context of a five-year determination of need by departments and the School Committee, in conjunction with the Town's overall financial capacity to affordably accommodate the required debt service payments. Projected debt service payments and budgetary impacts are forecast annually to help ensure affordability and sustainability of the Capital Improvement Program. The Town's Capital Improvement Policies provide guidance for assessing the capital needs of the Town. These policies, included in Section 6, define capital projects as those items requiring the expenditure of at least \$25,000 and having a useful life of more than five years. Recommended capital project requests are prioritized using the following criteria:

- the project is required to comply with State and/or Federal accessibility standards;
- the project is necessary to protect the health and safety of people; and
- the project is necessary to maintain an existing capital facility, or operation of equipment used in providing Town services.

In addition to the criteria listed above, the Town has a long practice of funding the systematic replacement of obsolete or worn-out equipment, and those items requested for the improvement of operating efficiency and the equitable provision of services.

The development of the CIP occurs over the following approximate timeframe:

Late Summer — Following Town Meeting, departments are provided with their previously submitted five year requests for review, update and the addition of the next fifth year. While requests for each year should remain the same as in the initial request, there are occasionally changed circumstances which necessitate alterations to the requests. This information is returned to the Town Manager and staff for review. Also in the summer, the Assistant Town Manager/Finance Director develops and presents a pro forma budget for the ensuing five year period. The pro forma budget is the basis for the determination of the amount of revenue available to support the CIP.

Autumn — The Town Manager and staff meet with each department to gain a better understanding of each request.

Late Autumn/Early Winter — The Assistant Town Manager/Finance updates the preliminary debt schedules and financial forecasts in order to provide context to the Capital Budget as well as the five-year Capital Improvement Plan, and the Town Manager presents the Board of Selectmen with a proposed five-year plan.

January – The Town Manager transmits the Capital Improvement Plan, along with any recommendations made by the Board of Selectmen, to the Finance Committee by the first Tuesday after the first Monday in January.

January/February/March — The Finance Committee reviews each project in the capital budget and makes recommendations on items included in the Town Meeting Warrant.

May — The capital budget is presented to Town Meeting for approval.

Financing of Capital Projects

The number of capital projects to be funded must be considered in the context of the total operating budget, capital budget needs, and revenue growth. Capital improvement projects are funded through current receipts, reserves, and/or other funds such as grants.

Current Receipts – Current receipts include property tax revenue, local receipts (such as fees and charges), and state aid. This plan includes no projects to be funded from current receipts.

Free Cash – Free Cash is a function of actual revenue collections in excess of estimates and expenditures less than appropriations. Because Free Cash cannot be relied upon as a recurring revenue source, the Town's practice is not to rely upon it as an operating revenue source. In this plan, we have continued the effort to minimize the Town's reliance on free cash to support on-going operations by limiting such use to no more than 2% of the prior year's appropriated operating budget, or the actual turn back, whichever is lower. The recommended plan includes \$3,157,467 to be funded from Free Cash.

Capital Improvement Fund – In 2004, the Town created a General Fund Cash Capital Equipment and Facility Improvement Fund (CIF). The purpose of the CIF is to allow the Town to reserve funds to use for general fund cash capital. The CIF may be used in future years to fund the acquisition of new equipment, the replacement of existing equipment, and building and facility improvements which cost less than \$250,000, for which the Town may borrow for a period of five years or more. Projects must be included in the CIP in order to be eligible for funding through the CIF. This plan includes no projects to be funded from the Capital Improvement Fund.

Capital Facility Stabilization Fund – In 2007, the Town created a Capital Facility Stabilization Fund to allow the Town to reserve funds for design, maintenance, renovation or reconstruction relating to the structural integrity, building envelope or MEP (mechanical, electrical, plumbing) systems of then existing capital facilities. For this purpose, capital facility refers to any building or structure which is located on Town property and is under the jurisdiction of the Town Manager, including any Town-

owned building, structure, room, or space within a building, facility, park or plaza, open space, driveway, landscaped area, or other physical improvements under the administrative control of the Town. This plan includes no projects to be funded from the Capital Facility Stabilization Fund.

Athletic Facility Improvement Fund – In 2012, the Town created an Athletic Facility Improvement Fund to reserve funds for the design, maintenance, renovation, reconstruction, or construction of athletic facilities. For the purpose of the fund, athletic facilities include any Town-owned building, structure, pool, synthetic turf and natural grass turf playing field or ball diamond, and associated grounds and parking areas whose primary purpose is for organized athletic events for Needham children, adults, and school teams. This plan includes no projects to be funded from the Athletic Facility Improvement Fund.

Debt Service Stabilization Fund – The November 2, 2015 Special Town Meeting approved the establishment of a Debt Service Stabilization Fund to set aside funds to be available as necessary to pay certain debt obligations. This fund is intended to be part of the Town's overall planning strategy for addressing capital facility needs. The fund would provide added flexibility to maintain the Town's capital investment strategy by smoothing out the impact of debt payments in years when the debt level is higher than is typically recommended. The fund would also be beneficial at times when interest rates are higher than expected. The plan for the fund is designed to ensure that the monies are not depleted in a single year, and that the amount available for appropriation is known before the budget year begins. All appropriations to and from the fund require Town Meeting action. This plan includes no projects to be financed through use of the Debt Service Stabilization Fund.

Retained Earnings – Three of the Town's operations – water, sewer, and solid waste – are accounted for as enterprise funds. The revenues and expenditures of these operations are not commingled with those generated by general fund operations. Generally, each enterprise will generate surplus funds on an annual basis. The Board of Selectmen's retained earnings policies are included in Section 6. The policies contain reserve targets to ensure liquidity and stability of operations. Surplus funds above the target are considered available for appropriation. This plan includes \$1,181,416 in funding from the enterprise fund retained earnings accounts for fiscal year 2018 (RTS - \$710,342 and Water - \$471,074).

Debt – The Board of Selectmen's debt management policies (Section 6) provide guidance in translating capital expenditures into annual debt service. Section 2 of this plan contains a graphic presentation of the Town's current debt service and a calculation of the Town's debt burden (annual debt service as a percent of total Town revenues). The figures used in calculating the debt burden are derived from the Town's long-term debt service schedule that is also included in Section 2. This plan includes a recommendation for \$4,820,000 in projects to be funded through General Fund debt in the Tier 1 Category, and \$1,900,000 to be funded through Enterprise Fund debt (Sewer – \$600,000 and Water - \$1,300,000) in fiscal year 2018. The Plan also includes \$9,000,000 in projects to be funded through General Fund Debt in the Tier 2 Category; depending on the final status and timing of these projects, this project may be recommended at the 2017 Annual Town Meeting or fall, 2017 Special Town Meeting.

Community Preservation Fund – The Community Preservation Act (CPA) allows cities and towns to raise monies through a surcharge on the tax levy. These funds may then be used to acquire, create and preserve open space, acquire and preserve historic resources, create, preserve and support community housing, and acquire, create and preserve land for recreational use. The CPA also provides for matching funds from the Commonwealth. The CPA requires that each fiscal year Needham must spend, or set aside for later spending, at least 10% of the annual revenues in the Community Preservation Fund for each of three CPA target areas: open space (but not including land for recreational use), historic resources, and community housing. The remaining 70% may be appropriated at the Town’s discretion as long as it is used for the three target areas or recreation. The statute also permits the Town to appropriate up to 5% of the annual revenue estimate for the administrative expenses of the Community Preservation Committee (CPC). Projects submitted for inclusion in the CIP that qualify for CPA funding are forwarded to the CPC for its consideration. This plan includes a recommendation for \$3,745,000 in projects contingent upon Community Preservation Funding cash and \$12,000,000 contingent on CPA debt financing in fiscal year 2018.

Other Available Funds – An Available Fund is actual monies which have become available and may be used to fund expenditures. Monies may become available after a project is completed and the cost was less than appropriated, monies that were previously set aside for future expenditure (e.g. stabilization fund), or monies that are received by the Town but must be specifically identified as a funding source in the Town Meeting motion. Some Available Funds are restricted to certain purposes (e.g. surplus bond proceeds, special stabilization funds, sale of surplus real estate, grants), and other Available Funds are non-restricted and hence can be appropriated for any legal purpose. Some Available Funds carry over from year to year and others expire at the end of the fiscal year and close out to fund balance. This plan includes \$2,100,000 in projects to be funded from Other Available Funds fiscal year 2018.

The CIP Is a Flexible Planning Tool

While much of the Town’s budget and financial planning efforts are by necessity focused on one or at most two year intervals, capital planning helps to focus attention on the Town’s long-term objectives and financial capacity, and the balance between operating and capital needs. The Town is often faced with the option of reducing its capital plan in order to balance the operating budget. Having a formal and accepted plan helps to maintain a consistent level of spending for capital needs, barring extraordinary circumstances. Individual projects are evaluated against long-term objectives and in relationship to each other. By strategically programming capital projects, the Town can maintain a tolerable level of debt service, and prevent unexpected changes in debt service payments.

Investment in Real Property, Facilities and Infrastructure

Asset preservation – committing necessary resources to preserve, repair, or adaptively re-use current assets – is a high priority for the Town in order to keep the it’s physical plant and infrastructure in reliable operating condition. While significant investment in many capital facilities is still required or overdue, the Town of Needham has made an extraordinary investment in public infrastructure during the past decade. The Town’s success in this area is a direct result of continued and sustained focus

on asset evaluation, needs assessment, careful planning, and prioritization. The need for this level of investment in facilities and infrastructure is generally attributable to three factors – the age of the community and its infrastructure and assets, the built environment and amount of lane miles of roadway, and the growth in school age population after the Second World War that resulted in a building boom from 1951 to 1960. After the advent of Proposition 2½ in 1982, the community found it difficult to make necessary investment in its array of school facilities. This resulted in a need for complete replacement or rehabilitation of the entire system beginning in the mid-1990s and continuing today. Finally, based on adoption of and changes to the Community Preservation Act, the Town has made a truly remarkable investment in athletic facility, parks, and recreational amenities including Walker Gordon Field, Greene’s Field and Playground, Newman Fields, Eastman Trail, and the Rail Trail. The fiscal year 2018 budget recommendation continues that emphasis, including the long-awaited all-abilities trail around the Needham Reservoir, and reconstruction of the Rosemary Pool and Recreation Complex. Table 2 shows the Town’s investment in facilities and infrastructure over the past five years.

Table 2
Facility and Infrastructure Investment
2013 to 2017

Description	2013	2014	2015	2016	2017	Total	Average
Municipal Facilities	\$40,000	\$2,771,500	\$105,779	\$90,000	\$649,000	\$3,656,279	\$731,256
Townwide Facilities and Community Services	\$1,247,315	\$951,828	\$750,219	\$3,513,323	\$756,154	\$7,218,839	\$1,443,768
Public Works Infrastructure Program	\$6,128,000	\$600,000	\$1,760,000	\$3,453,500	\$1,700,000	\$13,641,500	\$2,728,300
School Facilities	\$85,000	\$4,292,276	\$200,000	\$9,368,000	\$58,791,714	\$72,736,990	\$14,547,398
Drains, Sewer, and Water Infrastructure	\$1,079,300	\$7,670,900	\$1,283,050	\$2,320,500	\$375,860	\$12,729,610	\$2,545,922
Total Appropriations	\$8,579,615	\$16,286,504	\$4,099,048	\$18,745,323	\$62,272,728	\$109,983,218	\$21,996,644

**Table 3 Equipment, Technology, & Fleet Capital
 2013 – 2017**

Description	2013	2014	2015	2016	2017	Total	Average
All Other Functions		\$146,250		\$30,645		\$176,895	\$35,379
Public Facilities & Works	\$235,000	\$480,100	\$29,797	\$144,000	\$120,000	\$1,008,897	\$201,779
Public Safety	\$40,000	\$27,500				\$67,500	\$13,500
Public School	\$155,200	\$176,145	\$112,000	\$108,145	\$45,000	\$596,490	\$119,298
Equipment	\$430,200	\$829,995	\$141,797	\$282,790	\$165,000	\$1,849,782	\$369,956
All Other Functions	\$160,000	\$30,000	\$130,000	\$30,000		\$350,000	\$70,000
Public Facilities & Works			\$33,000	\$129,500		\$162,500	\$32,500
Public Safety			\$408,615			\$408,615	\$81,723
Public School	\$672,800	\$633,800	\$679,325	\$403,000	\$347,080	\$2,736,005	\$547,201
Technology	\$832,800	\$663,800	\$1,250,940	\$562,500	\$347,080	\$3,657,120	\$731,424
All Other Functions					\$87,353	\$87,353	\$17,471
Public Facilities & Works	\$895,618	\$1,011,000	\$343,572	\$1,146,902	\$730,618	\$4,127,710	\$825,542
Public Safety	\$785,000	\$94,242	\$248,267		\$137,877	\$1,265,386	\$253,077
Public School							
Fleet	\$1,680,618	\$1,105,242	\$591,839	\$1,146,902	\$955,848	\$5,480,449	\$1,096,090
Total Appropriations	\$2,943,618	\$2,599,037	\$1,984,576	\$1,992,192	\$1,467,928	\$10,987,351	\$2,197,470

Investment in Equipment, Technology and Fleet

The position of the Town with respect to its equipment and technology capital investment is also positive. Major categories of this capital spending include Public Safety, Public Works, and Public Facilities fleet and equipment, School and Town-wide technology, and School copiers and equipment. Table 3 shows the Town's investment in these categories of capital spending for the five year period FY2013 through FY2017.

Project Summaries – Recommended Projects for Fiscal Year 2018

GENERAL GOVERNMENT

NON-PUBLIC SAFETY DATA SERVERS & STORAGE UNITS

This project is for the replacement of hardware within the three Town of Needham data centers. Phase I of the project will be the replacement of four servers, two storage units, and four switches. Phase II of the project will be the replacement of six servers, two storage units, and four switches. Data Center 1 is housed at the Town Hall, Data Center 2 is housed at the Public Services Administration Building, and Data Center 3 is housed at the Center at the Heights. Data Center 1 is the primary data center, where Town Departments access files and programs and the Internet. Network and Internet security components are housed here as well. The six servers at Town Hall are physical servers; however, three servers maintain and support approximately 50 virtual servers with corresponding data maintained on the storage units. The other three servers are for specific software functions. The servers, storage unit, and switches at the Public Services Administration Building act as a failsafe in case the Town Hall network and infrastructure is offline. The server and storage at the Center at the Heights houses backup data, and from this location certain segments of the data are migrated off site using a Carbonite business account. All of the servers are Dell PowerEdge R400 - R700 series, the storage units are Dell EqualLogic PS4000 - PS6000 series, and the switches are Dell PowerConnect 8000 series. All replacements would be comparable to the current devices being used. Maintaining this hardware at a level that will support the needs of the Town Departments is critical to the Town's business continuity strategy. As equipment gets older it becomes more difficult to maintain the same level of quality and performance as when initially installed, and this directly affects the day-to-day operations of the Town. *(Submitted by: Technology Department)*

The Town Manager's recommendation for Non-Public Safety Data Servers is \$145,000 to be funded by Free Cash.

PUBLIC SAFETY

PUBLIC SAFETY COMPLEX AND FIRE STATION 2

The November 2, 2015 and February 10, 2016 Special Town Meetings approved funding for feasibility studies for the renovation and/or reconstruction of the Public Safety Building on Chestnut Street/School Street and Fire Station 2 at the intersection of Highland Avenue and Webster Street. The Public Safety Building, originally built in 1931, was reconstructed in 1988 – 1989. The amount of space that was originally allocated within the building for the Police and Fire Departments is no longer sufficient to accommodate changes in operations, changing personnel needs, technology upgrades, and security improvements. The station is not fully accessible for individuals with limited mobility. Areas reviewed during the feasibility study in the Police Department included: locker space for female officers, evidence and property storage space, interview space and interview recording requirements, public meeting space needs, records storage, inadequate dispatch areas, patrol and administrative office space, report writing space, and prisoner holding cells. The current prisoner booking area is unsafe due to its size and the setup of the room. The building lacks the ability to handle technology improvements due to available space needed while the roof continues to leak into the records/server room on the second floor. The current climate control only works sporadically throughout the building creating numerous temperature variations. Areas reviewed in the Fire Department included apparatus bays that are too small for modern fire trucks; insufficient area for maintenance activities, non-existent facilities for storing and cleaning turnout gear, minimal existing office space, and insufficient storage space for files and equipment. The study included a review of the operational needs of both departments, facility assessment, assessment of spatial needs within existing or expanded facilities, alternatives analysis for demolition and rebuilding of new facilities, consideration of phasing/swing space, and a cost comparison of addition, renovation or rebuilding. The feasibility study is nearing completion, and additional funding is requested in FY2018 to complete schematic design. Design Development/Construction Document funding is proposed for FY2018 at the fall, 2017 Special Town Meeting, and construction funding is proposed for fiscal year 2019. Project features continue to be refined, and the design and construction cost estimates are under development. *(Submitted by: Town Manager)*

The Town Manager's recommendation for the Public Safety Complex & Fire Station 2 is \$250,000 to be funded by Other Available Funds. A supplemental appropriation in the amount of \$3,500,000 may be presented to Town Meeting in the fall of 2017.

BUNKER GEAR

This request is for the purchase of a second set of Personal Protective Equipment ("bunker gear") for all front line Fire personnel in FY2018. In the years to follow, funding will be sought to continuously replace the gear over a five year period. The bunker gear requested includes boots, firefighting pants and coat. Firefighting personnel regularly work in highly toxic environments caused by spills, chemical releases and the products of combustion. Numerous studies have found that carcinogens and other toxins associated with the fire ground can be extremely high. Further, the toxicity of these carcinogens appears to be much greater and more concentrated today, due to the wide spread use of synthetic and petroleum based

building materials and furnishings found in modern construction. These contaminants, chemicals, toxins, and carcinogens adhere to firefighters' bunker gear, creating a lingering exposure concern for the firefighters wearing this equipment and to members of the public they serve. Recent research links increased risk of cancer due to contaminated bunker gear. The Fire Department has already taken measures to help reduce the risk of cancer, including outfitting each piece of apparatus with after-action wipes to quickly remove carcinogens from responders' skin while still in the field. Industry best practices require that firefighters be issued two sets of gear so that once contaminated, the equipment can be washed and dried in extractors and dryers designed specifically for that purpose. A second set of gear will allow personnel to remain available to respond to calls while their gear is being cleaned. Once this initial set of additional firefighting gear is purchased, the Department will begin a planned rotational purchasing request annually, so that all firefighting bunker gear can be replaced within a 10 year schedule to ensure proper functioning and safety. *(Submitted by: Fire Department)*

The Town Manager's recommendation for Fire Bunker Gear is \$167,872 to be funded by Free Cash.

PUBLIC SCHOOLS

SCHOOL TECHNOLOGY REPLACEMENT

This request is for funding to replace School Department technology, including computers, printers, IWBs, servers, laptop carts, and specialized instructional labs. The request reflects the decision in FY2017 to move Digital Learning Devices (DLDs) and staff laptops to the operating budget, as well the new classroom technology standard. In FY2017, funding for devices with a lifespan of fewer than five years was shifted to the operating budget. These devices included Digital Learning Devices (DLDs) such as iPads and Chromebooks, and laptops. The FY2018 submitted request is for \$463,500 and represents a \$155,575 increase over the FY2018 projection included in the FY2017-2021 CIP. The \$463,500 request increase consists of \$310,500 in hardware replacement, \$61,000 in infrastructure improvements and \$92,000 in new requests. The hardware replacement budget of \$310,500 increases \$84,575 from the prior year and reflects the reallocation of funds away from whiteboard and desktop computer replacement to the replacement of computer labs at Broadmeadow, Eliot, Hillside and High Rock (\$40,500/each), as well as replacement of the TV Lab at Needham High School (\$36,000.) The infrastructure budget of \$61,000 increased \$10,000 over the prior CIP to fund wireless access points, which were added as a new category under technology infrastructure. Finally, several new requests totaling \$92,000 are included for FY2018: the replacement of the High Rock security camera and keyless entry system (\$20,000), the installation of gymnasium video displays at two schools (Eliot and Hillside for \$6,000), the replacement of the 30-year old mobile PA system for use at graduation (\$30,000), the installation of an auditorium screen and a projection system at High Rock (\$25,000), a replacement screen at Pollard (\$6,000) and a projector and screen in the Pollard cafeteria (\$5,000.) *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Technology Replacement is \$307,825 to be funded by Free Cash, and \$155,575 in the Tier 2 Category.

SCHOOL FURNITURE REPLACEMENT

This request continues the replacement cycle for school furniture in poor and fair condition at the Newman and Pollard schools. In these schools, furniture is 10-20+ years old and in a state of disrepair after decades of heavy use. In FY2005, Town Meeting approved funding of \$20,500 to begin the replacement of furniture in poor condition. By FY2015, all furniture in 'poor' condition was replaced at these schools. The funding request will continue with the replacement of furniture in fair condition at these schools and will allow for the purchase of furniture needed to support enrollment growth. Beginning in FY2022, the furniture request will be used exclusively to purchase new classroom furniture as necessary in all school buildings. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Furniture Replacement is \$45,000 to be funded by Free Cash.

SCHOOL COPIER REPLACEMENT

In May 2003, Town Meeting authorized \$60,000 in first year funding to establish a replacement cycle for school photocopiers. School photocopiers are located in all the schools and the administration building, and are used both by administrative and teaching staff. Teachers use the machines to reproduce classroom materials, including homework sheets, exams, teaching packets, etc. Currently the School Department owns 48 copy machines. The FY2018 request includes five copy machines. Copier replacement is planned on a lifecycle analysis, which projects when a copier should be replaced based on actual usage and the manufacturer's total estimated capacity. Copiers that are heavily used are replaced more frequently than copiers that are lightly used. A seven-year maximum is assumed for most machines, even if they have not yet reached maximum copy allowances, given the additional operating expense associated with servicing and maintaining older equipment, as well as the difficulty in obtaining replacement parts. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Copier Replacement is \$46,790 to be funded by Free Cash.

CENTRAL AVENUE SCHOOL WALKING TRAILS

This is a project to construct a walking trail behind the new "Hillside School" to be constructed on Central Avenue. All or a portion of this project will be constructed on land owned by the Town of Wellesley, which has been licensed to the Town of Needham for this purpose. The project, along with another project to design and build a playing field and adjacent walkways at the new school on the licensed land, is considered a separate, but parallel project to the school building project, and will be timed with the design of the building. The Town is exploring opportunities to have some of the walking trails on the Wellesley-owned land constructed by the Student Conservation Association (SCA) at a potentially reduced cost. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for Central Avenue School Walking Trails is \$210,000 contingent on Community Preservation Funding.

CONSOLIDATED HIGH SCHOOL PROJECT

Classroom Expansion

This project would fund the addition of classroom space at Needham High School to support anticipated student population growth. Enrollment is expected to remain at or over 1,700 students through FY2023. The existing capacity of the school is 1,450. The maximum number of students per classroom in the 2008 renovated and expanded NHS was 22. Currently 25% of the academic classrooms have class sizes of 25 or more. The MSBA standard for classroom utilization rate is 85%. Currently, the utilization rate is at 90%+. Since 2008, several spaces at NHS have been repurposed to function as classrooms, however the number available is below the need. Further, the repurposing has compromised the overall operation of the educational program. The October 2014 Special Town Meeting approved \$200,000 to subdivide two large classroom spaces into four classrooms, and the 2016 Annual Town Meeting approved an additional \$65,000 to conduct a feasibility study of classroom expansion alternatives at NHS, which is underway. This request is a placeholder for the design and construction funds needed to develop between 6-8 classroom spaces at Needham High School, pending the final recommendations included in the feasibility study. *(Submitted by: Needham Public Schools)*

High School Chiller

In FY2016, the chiller at the High School stopped functioning. It is believed that this is due to low glycol levels. The glycol protects the chiller from freezing in cold months. In the summer of 2016, the Public Facilities Department rented a temporary chiller. The Department intends to continue to rent a temporary chiller for the summer of 2017 while a new chiller is designed. This project is proposed to be evaluated and submitted with the classroom expansion project partly because the size and configuration of the chiller may be modified if the High School footprint is expanded. *(Submitted by: Public Facilities Department)*

High School Boiler Replacement

This request is to remove all four existing cast iron units and replace with three high efficiency gas fired condensing units. The replacement boilers will be complete with controls suitable for connection to the Town Building Management System and have burners with full modulation. The existing domestic hot water heater will also be replaced. The new boiler system will be designed for natural gas and will increase the energy efficiency of the heating system at the High School, and will allow the High School to utilize more than two boilers at a time. This project is proposed to be evaluated and submitted with the classroom expansion project partly because the size and configuration of the boilers may be modified if the High School footprint is expanded. *(Submitted by: Public Facilities Department)*

High School "A" Gym Upgrades

This request is to upgrade the Needham High School A Gym. The NHS A Gym was not part of the 2009 renovation. Plans for bleacher replacement are already underway. The bleachers are beyond their useful life and are difficult to use. The replacement modern bleachers will streamline opening and closing, and the bleacher design will accommodate the proposed

floor replacement and re-alignment. Also part of this project is the replacement of lighting and the ceiling. The lighting is presently inadequate, and the ceiling is a drop ceiling and tiles are frequently damaged. IN addition to use by the Schools, this gym is in high demand for community use. This project is being considered in the context of the High School Expansion project to achieve economies of scale and to accommodate scheduling. *(Submitted by: Public Facilities Department)*

High School Athletic Locker Reconfiguration & Addition

This request proposes to reconfigure and increase the number of student physical education lockers at NHS to accommodate the increased student population. Currently, there are 508 lockers at NHS (269 in the boys' locker room and 239 in the girls' locker room.) The project will add 111 lockers in the boys' locker room and 104 lockers in the girls' locker room, for a new grand total of 723. Currently, each locker room has small, medium and large lockers. The reconfiguration would remove the doors and frames from the medium and large lockers, and would create three new, small lockers from every two medium lockers, and three new small lockers from every one large locker. (The existing small lockers would remain unchanged.) This reconfiguration will yield 81 new boy's lockers and 80 new girls' lockers. Additionally, a new bank of 30 lockers would be added in the boys' locker room, and 24 new lockers will be added in the girls' locker room. This project is being considered in the context of the High School Expansion project to achieve economies of scale and to accommodate scheduling. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for the Consolidated High School Project is \$9,000,000 in the Tier 2 Category to be financed by General Fund debt and \$400,000 to be funded by Other Available Funds.

POLLARD BATHROOMS

There are four sets of boy and girl bathrooms at the school that are need of a renovation. The Town constructed the first of the four bathrooms in FY2017. This request is to complete the work started on the first set of bathrooms in the remaining bathrooms. The improvements that were made include new fixtures, new tiles, new layout and open doors, new ADA compliant stalls, and other features to modernize the bathroom facilities. It is intended that the remaining bathrooms will be renovated in one or two summers, depending on the schedule. The project will be timed to achieve the greatest efficiency and savings. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for Pollard Bathrooms is \$650,000 to be funded by Other Available Funds.

POLLARD BLUE AND GREEN GYM UPGRADES - DESIGN

Proposed improvements consist of replacing the present rubber flooring with another material that is appropriate for basketball use and installing mats along the side of the gym for safety. Lighting upgrades were completed under the energy efficiency request in FY2016. This funding will support the design of the flooring replacement in both the Blue and Green Gyms. The present rubber flooring is not ideal for basketball use and this building is used frequently by both School and community

basketball groups because of its size. The design will investigate handicap accessibility issues, player safety, and basketball specifications, and will determine the best type of flooring to install given restriction in these spaces. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for the Pollard Blue & Green Gym Upgrade Design is \$45,000 to be funded by Free Cash.

PUBLIC WORKS

FUEL ISLAND RELOCATION & UPGRADE

Currently DPW, Fire Department, School Department, and other Town vehicles rely on this fueling station. Beginning in September 2013, all Police Department vehicles also rely on this filling station. The Police Department consumes a large volume of gasoline, and that Department's reliance on this station represents a dramatic increase in use. This funding request reflects the anticipated costs of relocating the fuel station, demolition of the existing station, installation of a new station, and demolition of the "old" salt shed. The fueling station will be located on property transferred to the jurisdiction of the School Committee but remaining under the control of the DPW. The station is designed to be relocatable in the future if necessary. The fuel station is proposed for replacement and relocation based on its general age, condition, location, environmental concerns (e.g. proximity to wetlands, proximity to groundwater table, threat of algae contamination, and susceptibility to flooding), access and maneuverability, capacity, and compatibility with the proposed expansion of the DPW Operations Building at 470 Dedham Avenue. The RTS, Sewer and Water Enterprise Funds will be allocated 20% of the cost of the project based on fuel consumption. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Fuel Island Relocation & Upgrade is \$1,320,000 financed by debt - 80% paid by the General Fund and 20% paid by the Enterprise Funds.

DPW SEASONAL STORAGE FACILITY AT THE RECYCLING AND TRANSFER STATION - DESIGN

The recently completed DPW relocation feasibility study determined that approximately 14,000 s.f. of storage space required to fulfill DPW operations programming needs cannot fit on the existing site (470/484 Dedham Avenue). The existing site has been approved by the Board of Selectmen as the preferred site for the ultimate reconstruction of the facility. Weston & Sampson evaluated many options and locations, recommending that a seasonal storage facility be constructed in a remote location consisting of a building of approximately 7,000 s.f. and covered storage (canopy) of another 7,000 s.f. After reviewing recommendations with the PPBC and Board of Selectmen, Weston & Sampson has recommended that the facility be located at the RTS. Locating the seasonal storage building at the RTS will necessitate the relocation of existing operations to the currently unused acreage adjacent to the site. Design funding will include a review of RTS operations to determine the most appropriate location for the storage building and the operations to be relocated. Construction funding is proposed for FY2019. While the

funding source is listed as General Fund, enterprise funding will likely be recommended as part of the construction appropriation. *(Submitted by: Department of Public Works)*

An appropriation may be presented to Town Meeting in the fall of 2017 to be financed by debt.

PUBLIC WORKS INFRASTRUCTURE PROGRAM

The Public Works Infrastructure Program allows the Department of Public Works to make improvements and repairs to Town infrastructure, including but not limited to roads, bridges, sidewalks, intersections, drains, brooks and culverts. Each program is detailed below.

Street Resurfacing

This Program is essential to maintaining the structural and surface integrity of the Town's approximately 279 lane miles of accepted streets. The Town targets 17 lane miles per year to achieve a desired life cycle of 15 to 20 years. The primary strategy of this program is asphalt paving and incidental work. Incidental work may include asphalt berm curb, new grass shoulders, corner reconstruction including handicapped ramps, minor drainage improvements, street sign replacement, traffic markings, and signs. Applying this repair strategy in a timely manner will extend the useful life of the roadway for up to 15 years. Installing a monolithic asphalt berm curb better defines the edge of road, improves drainage and protects the shoulder from erosion. The Town targets roads with a Pavement Condition Index (PCI) of below 70 for resurfacing or specialized treatment. The Town targets a PCI of 60 or below for repair/renovation. The Town's goal is to maintain its roadway network at an average PCI rating of 75. Target funding for street resurfacing in FY2018 is \$800,000.

Traffic Signal & Intersection Improvements

This Program funds traffic signal and intersection improvements and installation of signalized intersections where none currently exist. Target funding for FY2018 is \$128,000 to be used for Engineering & Design for the Highland Avenue and West Street intersection.

Sidewalk Program

This program funds improvements to the network of sidewalks throughout the community. There are over 160 miles of accepted sidewalks in Needham. Over half of the Town's sidewalks do not comply with current standards and require significant improvements, including the installation of handicapped ramps. Sidewalk improvements must comply with Federal and State laws and construction standards. The target funding for FY2018 is \$484,000.

Storm Drain Capacity Improvements

This Program provides funding to improve roadway drainage capacity. The Town's Stormwater Master Plan identified a number of areas throughout Needham where improvements are required to resolve flooding problems and illicit discharge. Locations for improvements have been prioritized within the plan. This funding request includes, but is not limited to, the installation of

additional storm drains and the replacement and extension of drains on Manning Street, Hoover Road, Concord Road and Burnside Road with larger capacity drains. Since the issuance of the Stormwater Master Plan numerous multi-unit developments have been built or planned in the Town of Needham. These developments include new roads with drainage structures and roof or sump connections that are then connected to existing Town systems. These new connections have increased the load on the Town's drainage system and caused flooding in some areas. Due to extensive drainage repairs that were required on Greendale Avenue, funds for FY2017 were diverted from Ardmore Road and Hunnewell Street to complete that project. Unless circumstances dictate otherwise, FY2018 funding of \$100,000 is planned for Ardmore Road and Hunnewell Street.

Storm Drain System Repairs

This Program provides funding to repair failing storm drainage infrastructure within Town easements that have been discovered through investigation work. These projects will include the replacement of existing culverts that have deteriorated over time and are restricting flow. This work will eliminate flooding and capacity issues in the immediate vicinity. This project will provide funding over five years for the Drains Division to address small projects related to the Labor Day 2013 storm drainage remediation. Unless circumstances dictate otherwise, FY2018 funding in the amount of \$50,000 is targeted for system upgrades and repairs at various locations.

Brooks and Culverts – Repair and Maintenance It is the intention of the DPW to expend Capital Funds to address the issue of poorly draining brooks, streams, waterways and culverts throughout the Town that have been severely damaged by heavy rains/storms in the past. Flooding has caused the failure of retaining walls, resulting in extensive erosion and silt deposits in brooks and streams. The silt has provided a medium for vegetation and affected the flow of water, and the situation has resulted in the loss of useable abutting property and flooded basements. The current conditions are beyond the means of DPW equipment and personnel. It will require a detailed investigation, a plan of recommended improvements, a design drawing and specifications, environmental permitting and bidding of construction to be overseen by the Town's Engineering Division. This will return the waterways to a condition that the DPW will be able to maintain. The Environmental Protection Agency (EPA) is currently finalizing stronger requirements for stormwater and permitting under the NPDES permit. The Town will need to continue to demonstrate its efforts regarding cleaning and improvements to water quality of brook and culverts. Unless circumstances dictate otherwise, FY2018 funding of \$200,000 is planned for construction of a culvert at Meadowbrook Road.

Roadway Reconstruction

Town evaluates the sight distance, drainage, handicap ramps, sidewalks, subsurface utilities, public utility poles and overhead utilities of all roads. The physical condition of roads to be considered for full reconstruction include shape, foundation and traffic volume. This is a multi-year process requiring surveying, designing, utility evaluation and construction. Some of the roads that may be targeted for full reconstruction in the future include: Marked Tree Road, Nehoiden Street, Kingsbury Street, sections of Central Avenue, and Webster Street from Dedham Avenue to South Street. No funding is allocated to the Roadway Reconstruction category in FY2018.

Bridge Repairs

Surrounded on three sides by the Charles River, the Town jointly maintains a number of bridges with neighboring communities. The Massachusetts Bridge Inspection Program has identified a number of bridges that have some level of deficiency and has recommended repairs. This Program is essential to improve the structural and/or surface integrity of all bridges throughout Needham. Capital Project costs will include surveying, engineering evaluation, design, and repair or reconstruction. Bridges are one of the infrastructure assets whose value and depreciation are now tracked under the GASB 34 Program. The Massachusetts Department of Transportation issued a report on Newell's Bridge which connects Needham and Dover on Central Avenue and indicated that the bridge is deficient and in need of repair. The Town will work with Dover to determine how to address these deficiencies. No funding is allocated to the Bridge Repairs category in FY2018. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for the Public Works Infrastructure Program is \$1,300,000 (\$800,000 to be funded by Free Cash and \$500,000 to be financed by General Fund debt) in the Tier 1 Category and \$462,000 in the Tier 2 Category.

PUBLIC WORKS SPECIALTY EQUIPMENT

The FY2018 request is to fund a new Field Renovator for the Parks & Forestry Division. This piece of equipment renovates baseball diamonds and will be the second field renovator in the fleet. This acquisition is necessary to handle the acreage that Parks & Forestry maintains. The Field Renovation will also be used to de-weed clay skins and make them look fresh and play-worthy. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Public Works Specialty Equipment is \$30,000 to be funded by Free Cash.

TRAFFIC IMPROVEMENTS

This funding would support projects that are recommended by the DPW and the Traffic Management Advisory Committee (TMAC). These recommendations include items such as permanent speed monitoring devices, traffic calming measures, and school zone enhancements. These items are not presently included in the Department of Public Works operating budget. The proposed annual request will support one or two construction-related requests per year, such as 500 feet of roadway granite curb installation, two school zone installations, two average traffic calming installations, several radar sign installations or sign and/or pavement markings. The FY2018 funding request is to improve the Cedar Street and Central Avenue Intersection. This project was recommended by the Safe Routes to School Study that was prepared by the Commonwealth for the Eliot School. The project will improve the safety for vehicles and pedestrians crossing at the intersection by relocating curbing and sidewalk areas. This will shorten the distance of the cross-walk and allow the crossing guard to have better control over traffic flow and pedestrian crossings. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Traffic Improvements is \$249,000 to be funded by Free Cash.

PUBLIC FACILITIES

ENERGY EFFICIENCY UPGRADES

The 2011 May Special Town Meeting approved funding for an Engineering Study for Energy Upgrades. This study was conducted on ten key buildings in 2011. The results of this study illustrate that if the Town makes an initial investment in selected and recommended energy upgrades, the cost of these upgrades will pay for themselves within ten years. In FY2018, the department intends to install on-demand ventilation on air handlers in the mechanical room, and re-commission building HVAC controls at the Eliot School. The original study included Fire Station #2 and the Public Safety Building. While the Town has performed some of the energy efficiency upgrades, additional upgrades are on hold pending proposed reconstruction of these buildings. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for Energy Efficiency Upgrades is \$57,000 to be funded by Free Cash.

COMMUNITY SERVICES

ROSEMARY RECREATION COMPLEX

This project received design funds at two prior Town Meetings: FY2015 in the amount of \$450,000 and FY2016 in the amount of \$550,000. Both appropriations were awarded from the Community Preservation Fund. The Park and Recreation Commission, PPBC, Public Facilities-Construction Department, and Park and Recreation Department underwent a year-long feasibility study of Rosemary Pool and the site in 2013. The study was conducted by Weston & Sampson, with public input throughout the process. The Park and Recreation Commission voted to replace the outdoor pool on the Rosemary site, and to renovate the building to accommodate year-round use, and renovate the parking areas to accommodate more vehicles, as well as year-round use. The Park and Recreation Commission's goal is to have the site be used year-round. In summer 2015, BH+A was hired to design the new facility. This process included public input on the options for the site and the final design choices are currently in the permitting stages with local and state agencies. Rosemary Pool closed on August 26, 2016 and will not re-open. If this funding request is approved, the construction is proposed to begin in June 2017, with a goal of having a new facility for summer 2018. If a new facility is not built at the site, the Town will be required to remove the current structure and restore the banks on the lake, which has been estimated to cost of approximately \$2 million. Draining the lake for maintenance will no longer be needed with a new two pool option. The building will have bathhouse functions on the lower level. The second level will be operated separately, with a multi-purpose room for programs and office space for the Park and Recreation Department and the Health Department. The parking lot will require stormwater management improvements, create more parking opportunities than currently available, and be able to be used year-round. The entrance roadway will be resituated on the site, to decrease the slope. The portions of the facility that are related to outdoor recreation are eligible for funding consideration

under the Community Preservation Act. These would include the pools, the site work and parking, and the functions of the building related to the outdoor pool. *(Submitted by: Park & Recreation)*

The Town Manager's recommendation for Rosemary Recreation Complex is \$15,800,000 contingent on Community Preservation debt financing (\$12,000,000), General Fund debt financing (\$3,000,000) and Other Available Funds (\$800,000).

ATHLETIC FACILITY AND PUBLIC RECREATION IMPROVEMENTS

The Department of Public Works and Park and Recreation have developed a maintenance plan for all fields, which includes new or total reconstruction, partial renovation, irrigation, drainage improvements, and equipment replacement or repair (bleachers, fences/backstops, player benches and miscellaneous equipment) for multi-use fields and ball diamonds. The FY2018 request is to fund engineering and design for drainage and field renovation for Cricket Field's Field #2, and irrigation renovation for both fields at Cricket. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Athletic Facility and Public Recreation Improvements is \$285,000 contingent on Community Preservation Funding.

DRAIN SYSTEM IMPROVEMENTS – WATER QUALITY/ROSEMARY LAKE SEDIMENT REMOVAL

This project would fund the dredging and off-site management of impacted sediment from Rosemary Lake. There is sediment at the bottom of the lake that is impaired due to the accumulation of roadway pollutants from storm runoff water. The lake is suffering from low dissolved oxygen levels, nutrient loading (fertilizers), bacteria, and road contaminants, which are all problematic to the ecosystem of the lake and adjoining brook. This project will consist of removing the impacted sediment (0.5 to 5.5 feet in thickness) from the bottom of Rosemary Lake. Additional contaminants have been found in the sediment subsequent to the initial testing, requiring disposal at an out-of-state landfill facility. It is estimated that up to 30,000 cubic yards of sediment will be dredged. The lake is located in the Charles River watershed which has a Total Maximum Daily Load (TMDL) for pathogens and phosphorus. Rosemary Brook, from the outlet of the lake to its confluence with the Charles River, is listed as an impaired water and is a Category 5 water body. Under the recent National Pollution Discharge Elimination System (NPDES) Permit, a program under the Clean Water Act, Needham is required to undertake Best Management Practices (BMPs) to improve existing water quality in impaired waterbodies. Removal of impacted sediments will enhance one of Needham's natural resources by improving the water quality of the Lake, and thus the quality of Rosemary Brook. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Rosemary Lake Sediment Removal is \$2,400,000 contingent on Community Preservation Funding.

RESERVOIR TRAIL

Design funding for the Reservoir trail was appropriated in FY2014, and the contract for the design was awarded in October 2014 to BETA. The project has been permitted and received an Order of Conditions from the Needham Conservation Commission under the Massachusetts Wetlands Protection Act and the Needham Wetlands Protection Bylaw. The request for an amendment to the Special Permit for the Public Services Administration Building (PSAB) has been approved by the Needham Planning Board. Two public sessions were held during the design phase, and a presentation was made to the Needham Commission on Disabilities. The input from all sessions was incorporated into the design. This request is for the construction funds to create a handicap accessible perimeter trail, with boardwalks, around the Needham Reservoir. The development of an accessible trail around one of the Town's important amenities - the Needham Reservoir - was a key priority identified in the Town's Trails Master Plan. The Eastman Conservation Trail, recently rebuilt at the Newman School, is accessible but only available outside of school hours. The Reservoir Trail will have more hours of available use and closer parking. The Reservoir Trail will also include assistance for those with visual impairments, and provide an accessible fishing dock. The two decommissioned water supply wells are located within the trail area. The existing fence and concrete will be removed, the areas excavated and regraded. Prior to the building of PSAB, the trail had minimal use, but with more open access, it has become a popular location for fishing and walking. The dirt road, in place to access the wells, is eroding in places and is impassable during wet conditions. The southerly section has inconsistent routes, partially due to wet areas, creating damage to the wetland resource areas. Public education will be added throughout the trail related to the history of the reservoir and the natural environment within which it exists. *(Submitted by: Park & Recreation)*

The Town Manager's recommendation for the Reservoir Trail is \$850,000 contingent on Community Preservation Funding and \$75,000 to be funded by Water Enterprise Fund Retained Earnings.

IMPROVEMENTS TO MEMORIAL PARK BUILDING AND GROUNDS

The Memorial Park Building was included in the Townwide Facilities Study planning update completed in 2014. The study presumed a complete renovation of the current Memorial Park Building, which would make the building fully handicap accessible, and would be designed and constructed in accordance with the new building code. The facility would be part of an overall plan that enhances programs and promotes synergy among the other nearby Town facilities, and is seen as a service point for High School athletics and other community activities. The feasibility study for this project was funded at the 2016 Annual Town Meeting, and is under the charge of the PPBC. *(Submitted by: Memorial Park Trustees)*

Depending on the timing of the on-going feasibility study, an appropriation may be presented to Town Meeting to be funded by Other Available Funds, Community Preservation Funds, and General Fund debt (amounts yet to be determined).

GENERAL FUND FLEET REPLACEMENT PROGRAM

The Town's fleet replacement program was established in FY2015. The program includes a budget and schedule for the Town's rolling stock fleet of appropriately 220 vehicles, trailers, and large specialized attachments and the School Department fleet of 14 vans and buses. General purpose vehicles include pickup trucks, a variety of sedans, SUV's, vans, and police vehicles (87). They comprise approximately 39 percent of the entire fleet. General purpose vehicles are utilized in every department and are relatively inter-changeable. The replacement of these vehicles can proceed on a regular schedule and should be part of the of the Town's recurring costs. The Town relies on a number of trailers for the purpose of moving tools and equipment, hauling trash and debris, and transporting special equipment. The Town has 47 trailers which represents approximately 23 percent of the fleet. Specialized, high value vehicles and snow and ice equipment comprise the other 38 percent of the fleet. These vehicles and equipment are just as integral to Town operations as the general purpose vehicles, but serve the unique purposes of specific departments or divisions. Included in this group are the high value vehicles such as ambulances, large dump trucks, fire engines, street sweepers, and others for which appropriations need to be planned. *(Submitted by: Multiple Departments)*

GENERAL FUND CORE FLEET REPLACEMENT

Unit/Division	Year	Replacement	Amount
12/Parks	2009	Chevrolet Colorado	\$38,277
15/Admin	2008	Ford Explorer	\$35,481
52/Highway	2009	Toyota RAV4 Hybrid	\$34,729
704/Facilities	2005	Ford T250	\$31,222
PV/School	2008	Ford Transit XL	\$33,861
Van 3/School	2011	Ford Transit XL	\$32,875
Van 6/School	2011	Ford Transit XL	\$32,875

The Town Manager's recommendation for General Fund Core Fleet Replacement is \$239,320 to be funded by Free Cash.

GENERAL FUND FLEET REPLACEMENT – SPECIALIZED EQUIPMENT

Unit/Division	Year	Replacement	Amount
48/Highway	2008	Ford F450	\$83,561
336/Parks	2011	TORO 5900	\$98,747
R-02/Fire	2008	F-450 Horton 553	\$224,677

The Town Manager's recommendation for General Fund Fleet Replacement – Specialized Equipment is \$406,985 to be funded by Free Cash.

RECYCLING AND TRANSFER STATION (RTS) ENTERPRISE FUND

RECYCLING AND TRANSFER STATION PROPERTY IMPROVEMENTS

This article will be used to fund improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve functionality. Funding requested for FY2018 will support the reorganization of the Materials Processing and Composting Areas. The RTS receives and stores various construction materials generated both from Town projects and paying customers at its Materials Processing Area (MPA). In 2014 it was determined that the MPA was in need of better organization due to the inflow of various materials and its proximity to wetlands. Much of the material stored on site has become commingled and difficult to separate, resulting in materials that are difficult to reuse or market. Given that the Materials Processing Area is now accepting additional aggregate material and will be conducting an annual rock crushing operation, an opportunity exists to develop this area to better store, categorize and utilize materials in a manner that is conducive to limiting or negating adverse impacts to the adjacent wetlands. To bring better organization to the Materials Processing Area and ensure that operations do not adversely impact the wetlands, the RTS plans to purchase approximately 10,000 square feet of block face made up of interlocking precast concrete blocks that will be delivered and installed at the site in accordance with an engineering plan to create ten material storage bins with dimensions of 25' wide x 30' deep x 10' tall. If the seasonal storage is moved to the Materials Processing Area, the blocks can be disassembled and reassembled at a different location. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for RTS Property Improvements is \$290,000 to be funded by RTS Enterprise Fund Retained Earnings.

TRANSFER STATION FLOOR REPLACEMENT

The Municipal Solid Waste (MSW) transfer building was built in 1998. The concrete floor has not been replaced since it was constructed and it is in poor condition. The current condition is the result of heavy equipment operating across the surface each working day since the building was constructed, which has slowly eroded the concrete and exposed rebar in many places. The protruding rebar and ruts in the concrete floor could be a hazard to both RTS staff and the general public using the facility. The RTS plans to replace the entire MSW tip floor. This will require the floor to be jackhammered, the existing rebar removed and the ground surface prepared for new rebar and concrete. The dimensions of the MSW transfer building floor are 40 feet by 56 feet, eight inches (approximately 2,260 square feet). *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Transfer Station Floor Replacement is \$166,000 to be funded by RTS Enterprise Fund Retained Earnings.

FLEET REPLACEMENT – SPECIALIZED EQUIPMENT

<u>Unit/Division</u>	<u>Year</u>	<u>Replacement</u>	<u>Amount</u>
67/RTS	2004	Vermeer Grinder	\$43,086
80/RTS	2010	Packer Truck	\$211,256

The Town Manager’s recommendation for RTS Specialized Equipment is \$254,342 to be funded by RTS Enterprise Fund Retained Earnings.

SEWER ENTERPRISE FUND

SEWER PUMP STATION IMPROVEMENTS

The Town’s wastewater pumping stations have been evaluated to assess their physical condition and capacity, and to evaluate current and future flow projections. The Canister pump stations at Lake Drive, Cooks Bridge (Milo Circle), and Alden Road are each either at or beyond their design life. Maintenance and emergency shutoffs occur more frequently, and these stations require a greater amount of personnel and financial resources to keep them operational. The Alden Road Pump Station was originally constructed in the mid-1950's as a pneumatic ejection station, and was converted in the 1970's to a built in place wet well/dry well station with vertical flooded suction sewage pumps. There are no alarms with the exception of a local red light alarm to indicate high wet well levels. The electrical control panels are outdated and located below grade level adjacent to the pumps, which if flooded, poses a threat to personnel and equipment. The station has heat, but no dehumidification or ventilation. FY2018 funding is intended for the Alden Road Pump Station Design/Engineering and Construction. *(Submitted by: Department of Public Works)*

The Town Manager’s recommendation for Sewer Pump Station Improvements is \$600,000 to be financed by Sewer Enterprise Fund debt.

WATER ENTERPRISE FUND

WATER SERVICE CONNECTIONS

The primary purpose of this program is to remove old iron pipe water services that may contain lead from the water distribution system. Old water services are to be replaced prior (at least one year) to a road reconstruction/paving project. If this replacement does not occur, an element of the subsurface infrastructure remains susceptible to failure before the useful life of the reconstructed roadway has been realized. System-wide, there are approximately 1,220 services that still need to be replaced in the system. Approximately 70 services are expected to be replaced with the FY2018 budget request of \$200,000. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Service Connections is \$200,000 to be funded by Water Enterprise Fund Retained Earnings.

WATER SPECIALTY EQUIPMENT

The FY2018 request is to fund the replacement of Unit #115. The current 2008 excavator is used for water/sewer/drains projects including responding to emergencies. At the time of the requested replacement, the excavator will be ten years old. The replacement will be an upgraded version of the existing piece of equipment, which will make operations more efficient as it will be able to dig deeper to replace catch basins, excavate the whole bottom length of water pipe at proper depth because of its longer reach, help to install larger precast structures, and move steel road plates more easily because of an increased lifting power. The anticipated make and model will be a Komatsu PC88MR-10 or equivalent with a 12 year lifecycle. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Specialty Equipment is \$132,000 to be funded by Water Enterprise Fund Retained Earnings.

WATER DISTRIBUTION SYSTEM IMPROVEMENTS

The fiscal year 2018 – 2022 CIP combines all water distribution system Improvements into one article including water system rehabilitation and water main replacement.

Water System Rehabilitation

Under the Water System Rehabilitation Program, the Town's water infrastructure is routinely analyzed to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement. A diligent rehabilitation program encompassing maintenance, repair, and replacement ensures a continual supply of water to the public. The Department of Public Works prioritizes replacement of water pipes based upon pipe condition, water break history, and adequacy of water flow to fire hydrants. Unless circumstances require otherwise, funding for FY2018 will support the rehabilitation of Alfreton Road from Highland Avenue to Webster Street (unlined), Bennington Street from High Street to Concord Street (unlined) and Country Way (unlined).

Water Main Replacement

This request is to replace a total of 11,500 linear feet of 14" water main. The existing water line dates from 1936-1939 and is cast iron with a bitumastic or coal tar liner. The water quality in areas serviced by this line is a concern as the lining of these pipes breaks down over time causing discoloration in the water. In 2008, the Town began addressing areas served by this type of piping which at the time was approximately 19,000 linear feet extending from Charles River Street, to Pine Street, to Central Avenue, to Marked Tree Road and a section between Oak Street and Chestnut Street, to School Street. In 2008, the 14" water main was relined from the Charles River Water Treatment Facility to Grove Street. In 2010, the second phase of this project replaced the 14" water main with a new 16" water main extending from Grove Street to Central Avenue. The current project

will be replacing a 14" water main with a new 16" water main. This project includes replacing the pipe and reconstructing the road. Unless circumstances require otherwise, FY2018 funding is proposed for the design of the remaining 11,500 linear feet of water main to be replaced from the intersection of Pine Street to Marked Tree Road to Oak Street and Maple Street.
(Submitted by: Department of Public Works)

The Town Manager's recommendation for Water Distribution System Improvements is \$1,300,000 to be financed by Water Enterprise Fund debt.

CORE FLEET REPLACEMENT

<u>Unit/Division</u>	<u>Year</u>	<u>Replacement</u>	<u>Amount</u>
20/Water	2009	Toyota RAV4 Hybrid	\$34,729
24/Water	2009	Ford Transit Connect	\$29,345

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Water Core Fleet Replacement is \$64,074 to be funded by Water Enterprise Fund Retained Earnings.

Capital Recommendations and Funding Sources

Section 2

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**FY2018
Capital Budget
Funding Recommendations**

Project	Code**	Submitting Department	2018 Request	Cash Capital All Tiers	Debt - All Tiers	Operating Budget	Other	Note	Page
Non-Public Safety Data Center Servers and Storage Units	R	Finance	145,000	145,000					3-03
Public Safety Complex/Station 2	PM	Town Manager	3,750,000	250,000			3,500,000	Total project estimate \$63,590,000; design funding Fall 2017; Town vote TBD.	3-25
Bunker Gear	N	Fire	167,872	167,872				Health and safety concerns - new five-year plan.	3-33
School Technology Replacement	R	School	463,500	463,500				Request for FY2018 increased from prior year submission for FY2018.	3-58
Full-Day Kindergarten Space Study	NQ	School	50,000				50,000	Not capital may be a special warrant article.	3-38
School Furniture	R	School	45,000	45,000					3-62
Pollard Phased Improvements Feasibility Study	N	School	65,000				65,000	On hold by request.	3-52
School Copier Replacement	R	School	46,790	46,790					3-54
High School Classroom Expansion and Other Improvements^	PM	School	9,400,000	400,000	9,000,000			Feasibility study underway; several other stand alone project requests have been consolidated as one project (A Gym Improvements; Boiler Replacements; Chiller Replacement; Locker Reconfiguration).	3-40
Energy Efficiency Upgrade Improvements	PM	Public Facilities	57,000	57,000					3-75
Pollard Blue & Green Gym Upgrades	P	Public Facilities	45,000	45,000				Total project estimate is \$829,610.	3-79
Pollard Bathroom Upgrades	PM	Public Facilities	650,000	650,000				Fund if the High School requests are consolidated.	3-77

**FY2018
Capital Budget
Funding Recommendations**

Project	Code**	Submitting Department	2018 Request	Cash Capital All Tiers	Debt - All Tiers	Operating Budget	Other	Note	Page
Fuel Island Relocation and Upgrade#	PM	DPW	1,320,000		1,320,000			Debt to be paid by GF & Enterprise Funds.	3-93
DPW Seasonal Storage Facility @ RTS	M	Town Manager	550,000				550,000	Project estimate \$6,860,000 (percent paid by enterprise funds); may be funded by debt exclusion.	3-97
Public Works Infrastructure Program	R	DPW	1,762,000	1,262,000	500,000				3-101
Specialty Equipment	M	DPW	30,000	30,000				Field Renovator; this purchase would be an addition to inventory, not a replacement.	3-99
Time Clock System	N	DPW	72,000				72,000	May be submitted as a financial warrant article.	3-107
Traffic Improvements	N	DPW	249,000	249,000					3-109
Memorial Park Buildings and Grounds Improvements	PM	Memorial Park	5,900,000				5,900,000	Feasibility study underway; funding may be a combination of cash and debt.	3-142
Replace Unit 12	R	DPW Highway	38,277	38,277				The present vehicle is a Ford Escape Hybrid.	3-17
Replace Unit 15	R	DPW Parks	35,481	35,481				The present vehicle is a Ford Taurus.	3-17
Replace Unit 48	R	DPW Highway	83,561	83,561				The present vehicle is a Ford F450.	3-17
Replace Unit 52	R	DPW Highway	34,729	34,729				The present vehicle is a Ford Escape Hybrid.	3-17
Replace Unit 129	R	DPW Highway	12,016			12,016		The present vehicle is a Custom Flatbed Trailer.	3-17
Replace Unit 328	R	DPW Parks	5,351			5,351		The present vehicle is a Cross County Utility Trailer.	3-17
Replace Unit 336	R	DPW Parks	98,747	98,747				The present vehicle is a Toro Lawnmower Tractor.	3-17

Town of Needham
Capital Improvement Plan
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**FY2018
Capital Budget
Funding Recommendations**

Project	Code**	Submitting Department	2018 Request	Cash Capital All Tiers	Debt - All Tiers	Operating Budget	Other	Note	Page
Replace Front Line Vehicle	R	Police	32,544			32,544		The present vehicle is a Ford Explorer.	3-17
Replace Front Line Vehicle	R	Police	32,544			32,544		The present vehicle is a Ford Explorer.	3-17
Replace Front Line Vehicle	R	Police	32,544			32,544		The present vehicle is a Ford Explorer.	3-17
Replace Front Line Vehicle	R	Police	32,544			32,544		The present vehicle is a Ford Explorer.	3-17
Replace Animal Control Vehicle	R	Police	43,942			43,942		The present vehicle is a Ford F250.	3-17
Replace Unit 704	R	Public Facilities	31,222	31,222				The present vehicle is a Ford Econ Van E250.	3-17
Replace Unit PV	R	School	33,861	33,861				The present vehicle is a Ford Econ Van E250.	3-17
Replace Ambulance Unit R2	R	Fire	224,677	224,677				The present vehicle is a Ford E450 Ambulance.	3-17
Replace Rescue Boat & Trailer	R	Fire	22,737				22,737	Gator Rescue Boat - May be funded by a grant/donation.	3-17
Replace Unit Van 3	R	School	32,875	32,875				The present vehicle is a Ford E150.	3-17
Replace Unit Van 6	R	School	32,875	32,875				The present vehicle is a Ford E150.	3-17
Rosemary Recreation Complex	P	Park& Recreation		800,000	3,000,000			\$3,800,000 to be funded by General Fund resources.	3-126
General Fund			25,628,689	5,257,467	13,820,000	191,485	10,159,737		

**FY2018
 Capital Budget
 Funding Recommendations**

Project	Code**	Submitting Department	2018 Request	Cash Capital All Tiers	Debt - All Tiers	Operating Budget	Other	Note	Page
Central Avenue School Walking Trails	N	School	210,000	210,000					3-36
Athletic Facility and Public Recreation Improvements	R	DPW	285,000	285,000				Cricket Field Improvements	3-95
Water Quality Improvements (non-potable water)	P	DPW	2,400,000	2,400,000				Rosemary Lake sediment removal.	3-153
Rosemary Recreation Complex	P	Park& Recreation	15,800,000		12,000,000			Balance to be funded by a combination of General Fund resources.	3-126
Trail Improvement Project - Needham Reservoir	PM	Park& Recreation	925,000	850,000				Balance to be funded by Water Enterprise resources.	3-129
Open Space Purchase	P	Park& Recreation	1,000,000				1,000,000	No property has been identified for immediate purchase.	3-124
Community Preservation Fund			20,620,000	3,745,000	12,000,000		1,000,000		
Replace Unit 80	R	DPW/RTS	211,256	211,256				The present vehicle is an International truck.	3-17
Replace Unit 67	R	DPW/RTS	43,086	43,086				The present equipment is a Vermeer Grinder.	3-17
Property Improvements	M	DPW/RTS	290,000	290,000					3-144
Transfer Station Floor Replacement	N	DPW/RTS	166,000	166,000					3-147
Recycling and Transfer Station Enterprise Fund			710,342	710,342					

**FY2018
 Capital Budget
 Funding Recommendations**

Project	Code**	Submitting Department	2018 Request	Cash Capital All Tiers	Debt - All Tiers	Operating Budget	Other	Note	Page
Sewer Pump Station Improvements - Alden Road^	P	DPW/Sewer	590,000		600,000			May be eligible for special financing through SRS or MWRA.	3-155
Sewer Enterprise Fund			590,000		600,000				
Replace Unit 20	R	DPW/Water	34,729	34,729				The present vehicle is a Ford Escape Hybrid.	3-17
Replace Unit 24	R	DPW/Water	29,345	29,345				The present vehicle is a Ford F150.	3-17
Water Distribution System Improvements^	M	DPW/Water	1,261,750		1,300,000			May be eligible for special financing through SRS or MWRA.	3-165
Water Service Connections	R	DPW/Water	200,000	200,000					3-168
Water Specialty Equipment	N	DPW/Water	132,000	132,000				Unit 115	3-170
Needham Reservoir Trail	PM	Park & Recreation		75,000				This is a CPA funded project, but \$75,000 is to be funded by the water enterprise for work related to the Enterprise.	3-129
Water Enterprise Fund			1,657,824	471,074	1,300,000				
Total			49,206,855	10,183,883	27,720,000	191,485	11,159,737		

**FY2018
 Capital Budget
 Funding Recommendations**

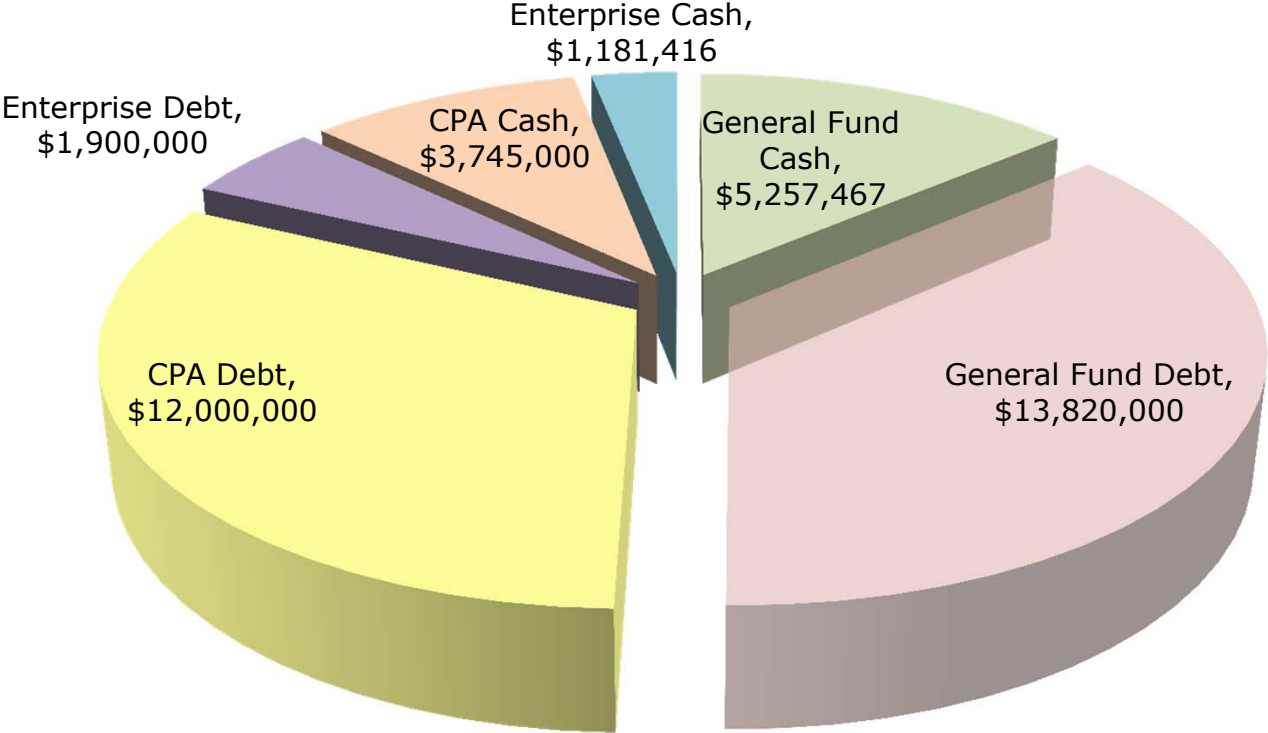
Project	Code**	Submitting Department	2018 Request	Cash Capital All Tiers	Debt - All Tiers	Operating Budget	Other	Note	Page
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^ Funding recommendation includes allowance for debt issuance

**** Codes**

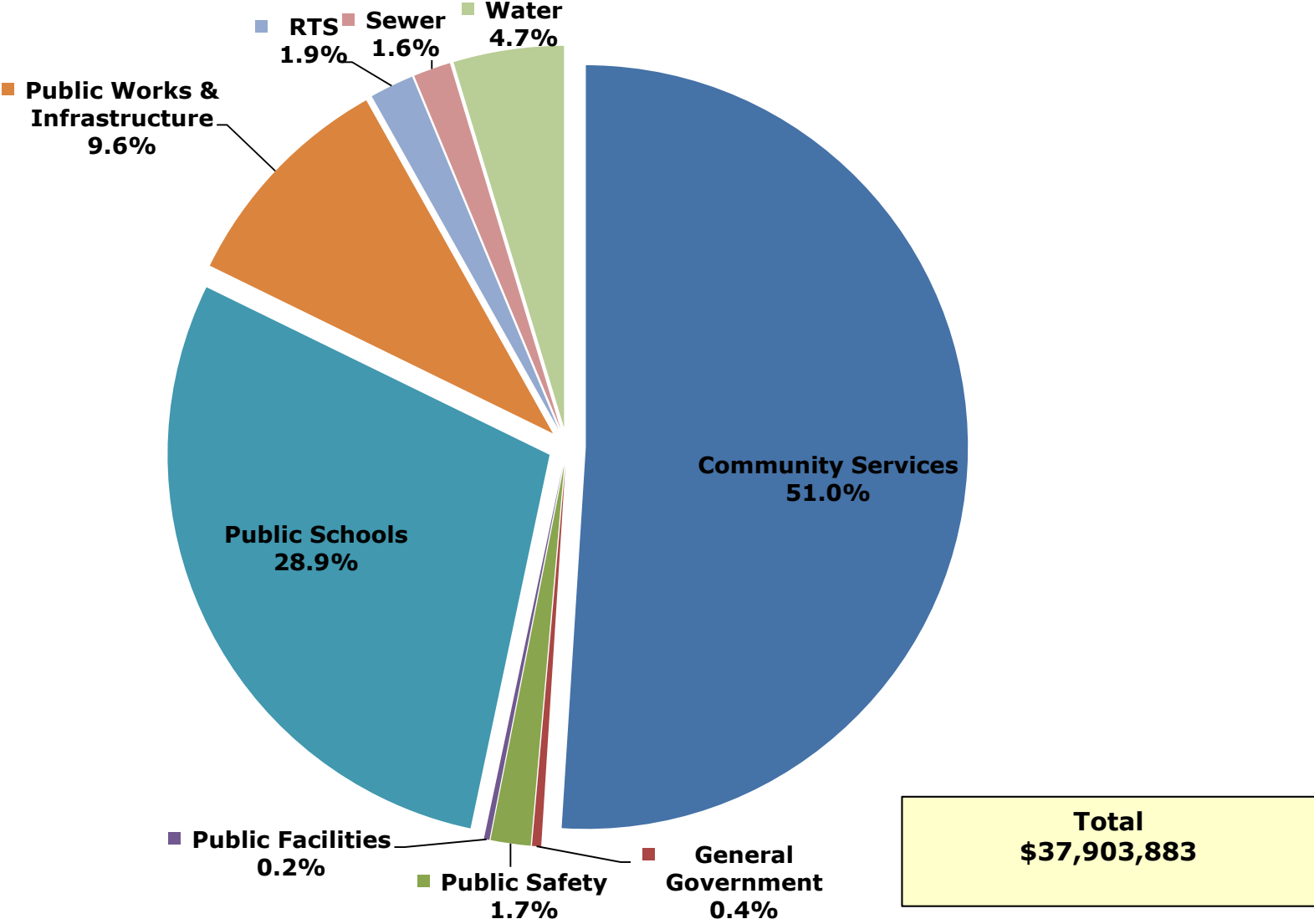
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|---|---|
| B = Transfer request and possible funding to operating budget | P = Project request has appeared in previous CIP's. |
| C = Recommendation is combined with other requests | Q = Request does not qualify as a capital submission |
| D = Recommendation is deferred or on hold pending other actions. | R = Request is a regularly occurring capital expense. |
| E = Emergency approval | S = No recommendation; under study |
| F = Funded appropriation outside the capital plan | U = Urgent request based on identified conditions |
| I = Project submission is incomplete or waiting additional information. | Y = Funded |
| M = Submission has been modified | |
| N = New submission with this CIP. | |
| O = Request does not qualify as capital, may be considered under the operating budget/special warrant article | |

FY2018 Proposed Capital by Funding Source

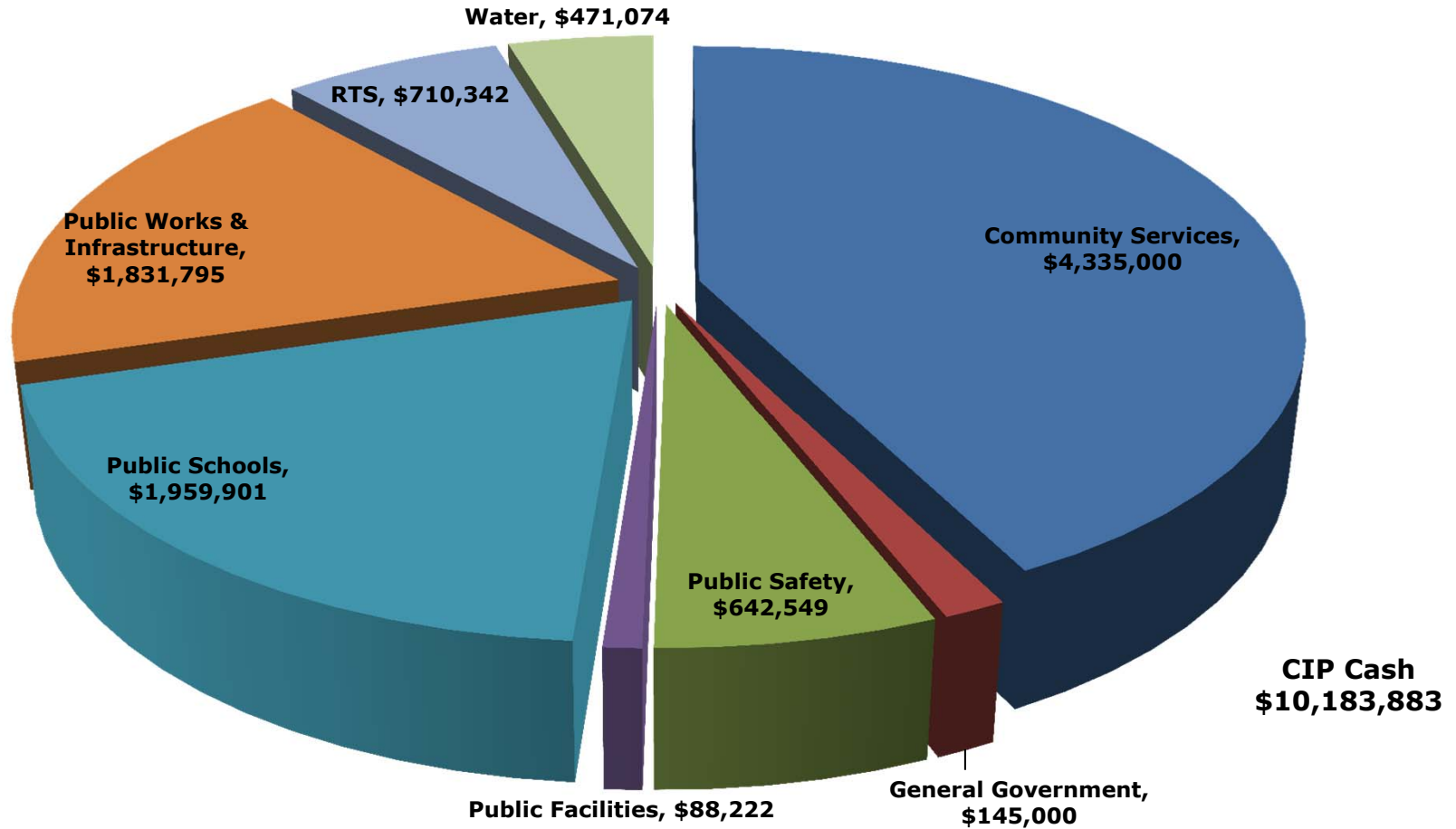


General Fund Cash General Fund Debt CPA Debt Enterprise Debt CPA Cash Enterprise Cash

FY2018 Proposed Capital by Function



FY2018 Proposed Cash Capital by Function



Town of Needham
Capital Improvement Plan
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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendation	2019 Department Request	Tier One Recommendation	2020 Department Request	Tier One Recommendation	2021 Department Request	Tier One Recommendation	2022 Department Request	Tier One Recommendation	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
General Fund/Community Preservation Fund																			
Full-Day Kindergarten Space Modification	MB	Schools	2					50,000						50,000					3-67
Accounting and Revenue Software Package Replacement	P	General	1							1,100,000	1,100,000			1,100,000	1,100,000	1,100,000			3-11
Asa Small Field Renovation	P	Public Works	2			141,000	141,000							141,000	141,000			141,000	3-111
CPA/ASF Athletic Facility and Public Recreation Improvements	M	Community	3	285,000	285,000	570,000	207,000	2,500,000	2,500,000	450,000		134,234		3,939,234	2,992,000			2,992,000	3-95
Athletic Fields Master Plan	PG	Community	3							75,000				75,000					3-140
Bunker Gear	N	Public Safety	1	167,872	167,872	37,000	37,000	38,110	38,110	39,253	39,253	40,430	40,430	322,665	322,665	322,665			3-33
Center at the Heights Computer Lab	P	Community	1					50,000	50,000					50,000	50,000	50,000			3-09
CPA Central Avenue School Walking Trails	N	Schools	2	210,000	210,000									210,000	210,000			210,000	3-36
Cricketer Field Building Renovations	M	Community	2					154,000		618,000				772,000					3-134
DPW Complex	M	Public Works	2							2,950,000				2,950,000					3-117
DPW Seasonal Storage Facility @ RTS	M	Public Works	2	550,000		6,310,000								6,860,000					3-97
CPA Drain System Improvements - Water Quality (EPA)	M	Public Works	3	2,400,000	2,400,000	118,000		250,000		1,000,000				3,768,000	2,400,000			2,400,000	3-153
Energy Efficiency Upgrade Improvements	M	Facilities	2	57,000	57,000	15,000	15,000	58,000		100,000				230,000	72,000	72,000			3-75
Facility Assessment for Sustainable Building Management	MB	Schools	2			85,165								85,165					3-85
Firearm Replacement	M	Public Safety	1					31,000	31,000					31,000	31,000	31,000			3-29
Fuel Island Relocation and Upgrade	M	Public Works	2	1,320,000	1,320,000									1,320,000	1,320,000		1,320,000		3-93
Full Day Kindergarten Space Study	NQB	Schools	2	50,000										50,000					3-38
High School A Gym Upgrade	PC	Schools	2	182,000		64,000		30,000						276,000					3-43
High School Athletic Locker Reconfiguration & Addition	MC	Schools	1					45,200						45,200					3-49
High School Boiler Replacement	MC	Schools	2					840,000						840,000					3-45
High School Chiller	NC	Schools	2	60,000		418,849								478,849					3-47
High School Classroom Expansion	MC	Schools	2	414,728		6,855,372								7,270,100					3-40
Library Furniture Replacement	N	Community	1			45,320	45,320	97,920		84,000		57,000		284,240	45,320	45,320			3-119
Library RFID Conversion Project	M	Community	1			127,200	127,200							127,200	127,200	127,200			3-121
Memorial Park Buildings and Grounds Improvements	M	Community	2	5,900,000										5,900,000					3-142
Multi-Function Printer Devices	P	General	1							35,600	35,600	35,600	35,600	71,200	71,200	71,200			3-13
Non-Public Safety Data Center Servers and Storage Units	P	General	1	145,000	145,000	180,000	180,000							325,000	325,000	325,000			3-03
Open Space Purchase	M	Community	3	1,000,000										1,000,000					3-124

Town of Needham
Capital Improvement Plan
January 2017

**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendatio n	2019 Department Request	Tier One Recommendatio n	2020 Department Request	Tier One Recommendatio n	2021 Department Request	Tier One Recommendatio n	2022 Department Request	Tier One Recommendatio n	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
Permanent Message Boards	M	General	1			87,000	39,000	90,000		47,000				224,000	39,000	39,000			3-113
Police Cruiser Radio Replacement	M	Public Safety	1			80,563	80,563							80,563	80,563	80,563			3-27
Police Use-Of-Force Training Simulator	P	Public Safety	1							45,000	45,000			45,000	45,000	45,000			3-31
Pollard Bathrooms	N	Schools	2	650,000	650,000									650,000	650,000	650,000			3-77
Pollard Blue & Green Gym Upgrades ^	M	Schools	2	45,000	45,000	754,610	760,000	30,000	30,000					829,610	835,000	75,000	760,000		3-79
Pollard Locker Room Retrofit	M	Schools	2							61,232	61,232	316,875	316,875	378,107	378,107	378,107			3-89
Pollard Phased Improvements Feasibility Study	NB	Schools	1	65,000										65,000					3-52
CPA Public Playgrounds	P	Community	1					600,000	600,000					600,000	600,000			600,000	3-136
Public Safety Complex/Station #2	M	Public Safety	2	3,750,000	250,000	59,700,000								63,450,000	250,000	250,000			3-25
Public Safety Data Center Servers and Storage Units	P	Public Safety	1			30,000	30,000			60,000	60,000			90,000	90,000	30,000		60,000	3-05
Public Safety Mobile Devices	P	Public Safety	1			35,000	35,000	35,000	35,000					70,000	70,000	70,000			3-07
Public Works Infrastructure Program	M	Public Works	3	1,762,000	1,300,000	2,025,000	1,300,000	1,680,500	1,300,000	2,771,513	1,300,000	1,718,050	1,718,050	9,957,063	6,918,050	6,168,050	750,000		3-101
Renovate/Reconstruct Emery Grover Building at Highland Avenue Location	M	Schools	2					1,605,200		13,089,300				14,694,500					3-69
CPA Rosemary Lake Camp and Trail	M	Community	3			250,000	250,000							250,000	250,000			250,000	3-132
CPA Rosemary Recreation Complex	M	Community	2	15,800,000	15,800,000									15,800,000	15,800,000		15,000,000	800,000	3-126
School Copier Replacement	R	Schools	1	46,790	46,790	80,850	80,850	54,200	52,780	88,490	89,010	99,730	99,730	370,060	369,160	369,160			3-54
School Document Management System	M	Schools	1			106,400		72,400			178,800			178,800	178,800	178,800			3-64
School Furniture	R	Schools	1	45,000	45,000	44,806	44,806	25,000	25,000	45,000	45,000	25,000	25,000	184,806	184,806	184,806			3-62
School Technology Replacement	R	Schools	1	463,500	307,925	292,000	282,500	565,500	347,500	556,325	177,050	459,700		2,337,025	1,114,975	1,114,975			3-58
Specialty Equipment	M	Public Works	1	30,000	30,000	72,000	72,000	80,000	80,000	163,000	163,000	40,000	40,000	385,000	385,000	385,000			3-99
Sustain Hillside School as Swing Space	N	Schools	2							100,000		2,607,400		2,707,400					3-72
Technology Systems and Application Updates	N	General	1									100,000		100,000					3-15
Time Clock System	NB	Public Works	1	72,000										72,000					3-107
Town Common Redesign	m	Community	3			600,300	600,300							600,300	600,300			600,300	3-115
Town Offices Replacement Furniture	N	General	1			25,000	25,000					25,000	25,000	50,000	50,000	50,000			3-01
Traffic Improvements	N	Public Works	2	249,000	249,000	50,000		50,000		50,000		50,000		449,000	249,000	249,000			3-109

Town of Needham
Capital Improvement Plan
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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendation	2019 Department Request	Tier One Recommendation	2020 Department Request	Tier One Recommendation	2021 Department Request	Tier One Recommendation	2022 Department Request	Tier One Recommendation	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
CPA Trail Improvement Project - Needham Reservoir	M	Community	3	925,000	925,000									925,000	925,000			925,000	3-129
* Refer to the last page for code and cat (category) descriptions																			
Equipment and Technology			1	1,035,162	742,587	1,243,139	1,079,239	1,784,330	1,259,390	2,263,668	1,932,713	882,460	265,760	7,208,759	5,279,689	4,619,689		660,000	
Buildings & Facilities			2	29,237,728	18,581,000	74,393,996	916,000	2,817,200	30,000	16,968,532	61,232	2,974,275	316,875	126,391,731	19,905,107	1,674,107	17,080,000	1,151,000	
Infrastructure & Land			3	6,372,000	4,910,000	3,563,300	2,357,300	4,430,500	3,800,000	4,296,513	1,300,000	1,852,284	1,718,050	20,514,597	14,085,350	6,168,050	750,000	7,167,300	
Fleet			4	686,409	646,305	1,957,131	1,634,339	1,190,076	968,000	341,381	500,000	722,665	722,665	4,897,662	4,471,309	4,471,309			
Totals				37,331,299	24,879,892	81,157,566	5,986,878	10,222,106	6,057,390	23,870,094	3,793,945	6,431,684	3,023,350	159,012,749	43,741,455	16,933,155	17,830,000	8,978,300	
General Fund Cash Funding - All Groups					2,539,892		3,919,578		2,957,390		3,733,945		3,023,350		16,174,155				
General Fund Debt Funding - All Groups					16,820,000		1,010,000								17,830,000				
Other Financial Source - All Groups					5,520,000		1,057,300		3,100,000		60,000				9,737,300				
Total General Fund/CPA Tier One Recommended					24,879,892		5,986,878		6,057,390		3,793,945		3,023,350		43,741,455				

Town of Needham
Capital Improvement Plan
January 2017

**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendation	2019 Department Request	Tier One Recommendation	2020 Department Request	Tier One Recommendation	2021 Department Request	Tier One Recommendation	2022 Department Request	Tier One Recommendation	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
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Recycling and Transfer Station Enterprise

Horizontal Grinder	N	RTS	1			819,000								819,000					3-149
Property Improvements	M	RTS	2	290,000	290,000	113,100						120,000		523,100	290,000	290,000			3-144
Stormwater Control at RTS	M	RTS	2			138,600	138,600							138,600	138,600	138,600			3-151
Transfer Station Floor Replacement	N	RTS	2	166,000	166,000									166,000	166,000	166,000			3-147

* Refer to the last page for code and cat (category) descriptions

Equipment and Technology			1			819,000								819,000					
Buildings & Facilities			2	456,000	456,000	251,700	138,600					120,000		827,700	594,600	594,600			
Infrastructure & Land			3																
Fleet			4	254,342	254,342			34,783	34,783			455,611	460,000	744,736	749,125	289,125	460,000		
Total - Recycling and Transfer Station Enterprise				710,342	710,342	1,070,700	138,600	34,783	34,783			575,611	460,000	2,391,436	1,343,725	883,725	460,000		
Cash Funding					710,342		138,600		34,783				460,000		1,343,725				
Debt Funding																			
Other Financial Source																			
Total - Recycling and Transfer Station Enterprise					710,342		138,600		34,783				460,000		1,343,725				

Town of Needham
Capital Improvement Plan
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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendation	2019 Department Request	Tier One Recommendation	2020 Department Request	Tier One Recommendation	2021 Department Request	Tier One Recommendation	2022 Department Request	Tier One Recommendation	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
Sewer Enterprise Fund																			
Sewer Main Extension Zone I and II	P	Sewer	3			510,000	510,000							510,000	510,000	510,000			3-157
Sewer Main Replacements	M	Sewer	3			100,000	100,000	500,000	500,000					600,000	600,000	100,000	500,000		3-159
Sewer Pump Station Improvements^	M	Sewer	3	590,000	600,000			630,000	645,000	345,000	345,000	3,370,500	3,450,000	4,935,500	5,040,000	345,000	4,695,000		3-155
Sewer Service Connections	R	Sewer	3			50,000	50,000	50,000	50,000	50,000	50,000	50,000		200,000	150,000	150,000			3-161
* Refer to the last page for code and cat (category) descriptions																			
Equipment and Technology			1																
Buildings & Facilities			2																
Infrastructure & Land			3	590,000	600,000	660,000	660,000	1,180,000	1,195,000	395,000	395,000	3,420,500	3,450,000	6,245,500	6,300,000	1,105,000	5,195,000		
Fleet			4					609,249	609,249	60,046	60,046	643,923	643,923	1,313,218	1,313,218	1,313,218			
Total - Sewer Enterprise				590,000	600,000	660,000	660,000	1,789,249	1,804,249	455,046	455,046	4,064,423	4,093,923	7,558,718	7,613,218	2,418,218	5,195,000		
Cash Funding						660,000	660,000	659,249	659,249	455,046	455,046	643,923	643,923	2,418,218	2,418,218				
Debt Funding					600,000			1,145,000	1,145,000			3,450,000	3,450,000	5,195,000	5,195,000				
Other Financial Source																			
Total - Sewer Enterprise					600,000	660,000	660,000	1,804,249	1,804,249	455,046	455,046	4,093,923	4,093,923	7,613,218	7,613,218				

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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendatio n	2019 Department Request	Tier One Recommendatio n	2020 Department Request	Tier One Recommendatio n	2021 Department Request	Tier One Recommendatio n	2022 Department Request	Tier One Recommendatio n	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
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Water Enterprise Fund																			
Birds Hill Water Tank	P	Water	3			200,000								200,000					3-172
Water Distribution Study	QB	Water	3					200,000						200,000					3-178
Water Distribution System Improvements^	M	Water	3	1,261,750	1,300,000	36,500	36,500	4,975,000	5,075,000	97,000	97,000	443,500	443,500	6,813,750	6,952,000	577,000	6,375,000		3-165
Water Service Connections	R	Water	3	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000		1,000,000	800,000	800,000			3-168
Water Specialty Equipment	N	Water	1	132,000	132,000									132,000	132,000	132,000			3-170

* Refer to the last page for code and cat (category) descriptions

Equipment and Technology	1	132,000	132,000											132,000	132,000	132,000			
Buildings & Facilities	2																		
Infrastructure & Land	3	1,461,750	1,500,000	436,500	236,500	5,375,000	5,275,000	297,000	297,000	643,500	443,500	8,213,750	7,752,000	1,377,000	6,375,000				
Fleet	4	64,074	64,074	295,016	295,016	125,055	109,036	120,428	120,428	133,214	133,214	737,787	721,768	721,768					
Total - Water Enterprise		1,657,824	1,696,074	731,516	531,516	5,500,055	5,384,036	417,428	417,428	776,714	576,714	9,083,537	8,605,768	2,230,768	6,375,000				
Cash Funding			396,074		531,516			309,036		417,428			576,714		2,230,768				
Debt Funding				1,300,000				5,075,000							6,375,000				
Other Financial Source																			
Total - Water Enterprise				1,696,074		531,516		5,384,036		417,428			576,714		8,605,768				

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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendatio n	2019 Department Request	Tier One Recommendatio n	2020 Department Request	Tier One Recommendatio n	2021 Department Request	Tier One Recommendatio n	2022 Department Request	Tier One Recommendatio n	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
General Fleet Program																			
Core Fleet - Building	R	Public Safety	4									30,018		30,018					3-17
Core Fleet - DPF	R	Facilities	4	31,222	31,222	36,301		34,783		88,461				190,767	31,222	31,222			3-17
Core Fleet - DPW Garage	R	Public Works	4			56,054				36,000				92,054					3-17
Core Fleet - DPW General	R	Public Works	4	35,481	35,481	94,875		38,385				33,776		202,517	35,481	35,481			3-17
Core Fleet - DPW Highway	R	Public Works	4	34,729	34,729							150,369		185,098	34,729	34,729			3-17
Core Fleet - DPW Parks	R	Public Works	4	38,277	38,277	30,464								68,741	38,277	38,277			3-17
Core Fleet - Finance Assessing	R	General	4			35,758								35,758					3-17
Core Fleet - Fire	R	Public Safety	4					41,066		117,848				158,914					3-17
Core Fleet - Human Services	R	Community	4									100,240		100,240					3-17
Core Fleet - School	R	School	4	33,861	33,861									33,861	33,861	33,861			3-17
School Van Fleet	R	School	4	65,750	65,750	68,050		165,407		99,072		75,450		473,729	65,750	65,750			3-17
Snow and Ice Equipment	R	Public Works	4			87,240		554,197						641,437					3-17
Specialized Equipment - DPF	R	Facilities	4									71,066		71,066					3-17
Specialized Equipment - DPW Garage	R	Public Works	4									71,066		71,066					3-17
Specialized Equipment - DPW General	R	Public Works	4																3-17
Specialized Equipment - DPW Highway	R	Public Works	4	95,577	83,561	654,386		312,233				70,683		1,132,879	83,561	83,561			3-17
Specialized Equipment - DPW Parks	R	Public Works	4	104,098	98,747	227,664		44,005				119,997		495,764	98,747	98,747			3-17
Specialized Equipment - Fire	R	Public Safety	4	247,414	224,677	666,339	666,339							913,753	891,016	891,016			3-17
Fleet Program Funding***							968,000		968,000		500,000		722,665		3,158,665	3,158,665			3-17
Total - General Fund Fleet				686,409	646,305	1,957,131	1,634,339	1,190,076	968,000	341,381	500,000	722,665	722,665	4,897,662	4,471,309	4,471,309			
Cash Funding				686,409	646,305	1,957,131	1,634,339	1,190,076	968,000	341,381	500,000	722,665	722,665	4,174,997	3,748,644				
Debt Funding																			
Other Financial Source																			
Total - General Fund Fleet				686,409	646,305	1,957,131	1,634,339	1,190,076	968,000	341,381	500,000	722,665	722,665	4,174,997	3,748,644				
Deferred					40,104		322,792		222,076		-158,619				1,149,018				
Total - General Fund Fleet				686,409	686,409	1,957,131	1,957,131	1,190,076	1,190,076	341,381	341,381	722,665	722,665	4,897,662	4,897,662				

* Refer to the last page for code and cat (category) descriptions

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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendatio n	2019 Department Request	Tier One Recommendatio n	2020 Department Request	Tier One Recommendatio n	2021 Department Request	Tier One Recommendatio n	2022 Department Request	Tier One Recommendatio n	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page	
Enterprise Fleet Program																				
Core Fleet	R	RTS	4					34,783	34,783					34,783	34,783	34,783				3-17
Specialized Equipment^	R	RTS	4	254,342	254,342							455,611	460,000	709,953	714,342	254,342	460,000			3-17
Core Fleet	R	Sewer	4																	3-17
Specialized Equipment	R	Sewer	4					609,249	609,249	60,046	60,046	643,923	643,923	1,313,218	1,313,218	1,313,218				3-17
Core Fleet	R	Water	4	64,074	64,074					120,428	120,428	62,148	62,148	246,650	246,650	246,650				3-17
Specialized Equipment	R	Water	4			295,016	295,016	125,055	109,036			71,066	71,066	491,137	475,118	475,118				3-17
Total - Enterprise Fleet***				318,416	318,416	295,016	295,016	769,087	753,068	180,474	180,474	1,232,748	1,237,137	2,795,741	2,784,111	2,324,111	460,000			

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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendation	2019 Department Request	Tier One Recommendation	2020 Department Request	Tier One Recommendation	2021 Department Request	Tier One Recommendation	2022 Department Request	Tier One Recommendation	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
Equipment & Technology - All			1	1,167,162	874,587	2,062,139	1,079,239	1,784,330	1,259,390	2,263,668	1,932,713	882,460	265,760	8,159,759	5,411,689	4,751,689		660,000	
Fleet - All			4	1,004,825	964,721	2,252,147	1,929,355	1,959,163	1,721,068	521,855	680,474	1,955,413	1,959,802	7,693,403	7,255,420	6,795,420	460,000		
Buildings & Facilities - All			2	29,693,728	19,037,000	74,645,696	1,054,600	2,817,200	30,000	16,968,532	61,232	3,094,275	316,875	127,219,431	20,499,707	2,268,707	17,080,000	1,151,000	
Infrastructure & Land - All			3	8,423,750	7,010,000	4,659,800	3,253,800	10,985,500	10,270,000	4,988,513	1,992,000	5,916,284	5,611,550	34,973,847	28,137,350	8,650,050	12,320,000	7,167,300	
Other - All																			
TOTAL				40,289,465	27,886,308	83,619,782	7,316,994	17,546,193	13,280,458	24,742,568	4,666,419	11,848,432	8,153,987	178,046,440	61,304,166	22,465,866	29,860,000	8,978,300	

Town of Needham
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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations - All Funding Sources
FY2018 - FY2022**

Project	Code*	Function	Cat*	2018 Department Request	Tier One Recommendation	2019 Department Request	Tier One Recommendation	2020 Department Request	Tier One Recommendation	2021 Department Request	Tier One Recommendation	2022 Department Request	Tier One Recommendation	Five Year Request	Five Year Tier One	Cash	Debt	Other	Page
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** Exclusive of any extraordinary capital recommendations

*** The actual equipment to be replaced will be determined in the scheduled year for replacement. The CIP assumes the estimated amount will be the minimum to be invested in that fiscal year.

Code

B = Funding may be considered under the operating budget/special warrant article

C = Recommendation is combined with other requests

D = Recommendation is deferred or on hold pending other actions

E = Emergency approval

F = Funded appropriation outside the capital plan

G = Request may not qualify as capital submission

I = Project submission is incomplete or waiting additional information

M = Submission has been modified from previous submission

N = New submission with this CIP

P = Project request has appeared in previous CIP's

Q = Request does not qualify as a capital submission

R = Request is a regularly occurring capital expense

S = No recommendation; under study

U = Urgent request based on identified conditions

Cat (Category)

1 = Equipment or Technology

2 = Building or Facility

3 = Infrastructure

4 = Fleet

Pink highlighted amounts indicate that all or portion of the funding may be funded by debt if recommended.

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Current Year Requests						25,414,467	19,077,467
Cash							
Taxation & Reserves	3,421,633	6,066,941	2,667,260	2,432,606	2,729,117		3,157,467
Other Available Funds	2,278,000	75,000		320,305	302,000		2,100,000
Total - Cash	5,699,633	6,141,941	2,667,260	2,752,911	3,031,117		5,257,467
Debt							
Within the Annual Levy Limit	3,505,000	3,958,000	1,700,000	5,100,000	500,000		13,820,000
Excluded from the Levy Limit				7,000,000	58,305,000		
Total - Debt	3,505,000	3,958,000	1,700,000	12,100,000	58,805,000		13,820,000
Total	9,204,633	10,099,941	4,367,260	14,852,911	61,836,117	25,414,467	19,077,467

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
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Taxation & Reserves

100kW Portable Generator		61,250					
Athletic Facility Improvements	192,500						
DeFazio Field Sodding	90,000						
Defibrillators		27,500					
Desktop Virtualization	130,000						
Drain System Improvements – Water Quality			80,000				
Drain System Repairs			76,000				
Election Equipment		85,000					
Emery Grover Renovation/Relocation Feasibility	30,000						
Energy Efficiency Upgrade Improvements	34,815	113,078		96,323	38,154	57,000	57,000
Facilities Maintenance Program	450,000	465,750	482,000				
Fire Alarm Cables			60,000				
Fire Bunker Gear						167,872	167,872
Fire Station 2 Feasibility Study				37,695			
Firefighting Protective Gear	40,000						
Fleet - Building		45,042	61,660				

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Fleet - Council on Aging					35,354		
Fleet - Fire	785,000	49,200	186,607		137,874		
Fleet - Public Facilities	50,318	33,600	27,346	28,049	35,073		
Fleet - Public Works	293,000	387,000	100,910	750,370	159,759		
Fleet - Public Works Snow and Ice	159,000	210,300		326,879			
Fleet - Public Works Specialty	227,000				223,109		
Fleet - Replace Unit 12 (Highway)						38,277	38,277
Fleet - Replace Unit 15 (Parks)						35,481	35,481
Fleet - Replace Unit 336 (Parks)						98,747	98,747
Fleet - Replace Unit 48 (Highway)						83,561	83,561
Fleet - Replace Unit 52 (Highway)						34,729	34,729
Fleet - Replace Unit 704 (PFD)						31,222	31,222
Fleet - Replace Unit PV (School)						33,861	33,861
Fleet - Replace Unit R2 (Fire)						224,677	224,677
Fleet - Replace Unit Van 3 (School)						32,875	32,875
Fleet - Replace Unit Van 6 (School)						32,875	32,875
Fuel Island Relocation and Upgrade					131,000		

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Fuel System Software/Hardware Upgrade				94,500			
Full-Day Kindergarten Space Study						50,000	
Geographic Information System			100,000				
High School A Gym Upgrade					130,557		
High School Classroom Expansion Alternatives Feasibility Study					65,000		
High School Radio System		37,275					
High School Reconfiguration Work			200,000				
Hillside School Feasibility & Design		650,000					
Mail Processing Machines				30,645			
Memorial Park Buildings and Grounds Improvements					50,000	5,900,000	
Mitchell School Modular Classrooms		2,729,276					
Mobile Column Lifts				73,500			
Network Hardware, Servers & Switches	30,000	30,000	30,000	30,000			
Non-Public Safety Data Center Servers and Storage Units						145,000	145,000
Police and Fire Department Expansion/ New Building Feasibility Study					90,000		
Police Station Underground Storage Tank Removal		28,500					
Pollard Blue & Green Gym Upgrades						45,000	45,000

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Pollard Locker Replacement					41,157		
Pollard Phased Improvements Feasibility Study						65,000	
Pollard Telephone System Replacement		53,000					
Public Safety Computer Aided Dispatch System			244,615				
Public Works Garage Bay Design	40,000						
Public Works Garage Vehicle Service Lift		110,000					
Public Works Infrastructure Program				453,500	1,200,000	1,262,000	1,262,000
Public Works Large Format Scanner			33,000				
Public Works Seasonal Storage Facility @ RTS (4)						550,000	
Public Works Small Specialty Equipment	42,000	130,800	29,797				
Public Works Specialty Equipment						30,000	30,000
Public Works Two-Way Radios		47,700					
School Department 1:1 Initiative		145,000	127,725				
School Department Fitness Equipment Replacement		14,380	14,810				
School Department Furniture & Musical Equipment	43,450	56,600	49,180	45,405	45,000	45,000	45,000
School Department Graphic Arts Equipment	14,180	8,270	8,350				
School Department Interactive Whiteboard Technology	148,300		24,600				

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
School Department Photocopier Replacement	97,570	59,620	30,320	62,740	39,330	46,790	46,790
School Department Postage and Folding Machines			9,340				
School Department Technology Innovation			25,000				
School Department Technology Replacement	524,500	488,800	502,000	403,000	307,750	463,500	463,500
Time Clock System						72,000	
Traffic Improvements						249,000	249,000
Wireless Master Fire Box System			164,000				

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Other Available Funds							
Pollard Boiler Replacement Design (unexpended articles)	55,000						
Public Works Infrastructure Program (Unexpended Articles)	310,000						
Salt Storage Shed (Chapter 90 SAN)	1,913,000						
Property Acquisition (66-70 Chestnut Street) (FY14 Reserve Fund Transfer)		75,000					
DPW/Public Services Administration Building Location Feasibility Study				40,000			
Emery Grover School Administration Tank Replacement (Unexpended				73,000			
Hillside School Feasibility Study (Unexpended Articles)				45,000			
Fire Station 2 Feasibility Study (Unexpended Articles)				12,305			
High School Expansion Options (Unexpended Articles)				150,000			
Fleet - Replace Unit 404 (Unexpended Article)					52,000		
Central Avenue Elementary School Outside Play Area (Unexpended Article)					250,000		
Needham High School Classroom Expansion & Other Improvements							400,000
Public Safety Complex/Station #2 (4)						3,750,000	250,000
Pollard Bathroom Upgrades						650,000	650,000
Rosemary Pool Complex Renovations							800,000

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Debt							
Property Acquisition (37-39 Lincoln)	630,000						
Property Acquisition (51 Lincoln)	1,100,000						
Property Acquisition (59 Lincoln/89 School)	1,175,000						
Property Acquisition (66-70 Chestnut Street)		1,458,000					
Pollard Boiler Replacement		800,000					
Public Works Garage Bay		1,100,000					
Central Avenue/Elliot Street Bridge (Cooks Bridge)			900,000	2,000,000			
Needham High School Cafeteria Expansion				2,100,000			
Needham High School Classroom Expansion & Other Improvements						9,400,000	9,000,000
Rosemary Pool Complex Renovations							3,000,000
Fuel Island Relocation and Upgrade#						1,320,000	1,320,000
Public Works Infrastructure Program	600,000	600,000	800,000	1,000,000	500,000	500,000	500,000

**General Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
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Debt Exclusions

Property Acquisition (Owens Farm & Abutting Properties)				7,000,000			
Property Acquisition (609 Central Avenue)					762,500		
New Elementary School (Central Avenue)					57,542,500		

Notes

- # Portion of the debt will be paid by enterprise funds.
- (3) Special financing/grants may be available through MWPAT or MWRA for this project

**Community Preservation Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Current Year Requests						20,620,000	15,745,000
Cash							
Receipts & Reserves	480,000	433,000	268,219	3,417,000	978,000		3,745,000
Other Available Funds							
Total - Cash	480,000	433,000	268,219	3,417,000	978,000		3,745,000
Debt							
CPA Surcharge Supported							12,000,000
Total - Debt							12,000,000
Total	480,000	433,000	268,219	3,417,000	978,000	20,620,000	15,745,000

**Community Preservation Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Community Preservation Receipts & Reserves							
Greene's Field Playground Improvements	445,000						
Rail Trail Feasibility Study	35,000						
Newman Preschool Playground Surfacing		60,000					
Memorial Park Improvements			35,000				
Ridge Hill Reservation Footbridge Repairs			213,219				
Town Common Historic Redesign			20,000				
Boat Launch Design				30,000			
Mills Field Improvements		40,000		510,000			
Newman School Fields Renovation				1,527,000			
Rail Trail Improvements				100,000			
Trail Improvement Project - Newman Eastman		248,000		800,000			
Memorial Field Improvements					310,000		
Renovations to Rosemary Pool Complex				450,000	550,000		
Athletic Facility and Public Recreation Improvements (Cricket Field)+						285,000	285,000
Central Avenue School Walking Trails+						210,000	210,000
Open Space Purchase						1,000,000	

**Community Preservation Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Rosemary Lake Sediment Removal+					118,000	2,400,000	2,400,000
Trail Improvement Project - Needham Reservoir+		85,000				925,000	850,000
Community Preservation Debt							
Rosemary Recreation Complex+						15,800,000	12,000,000

Notes

+ Subject to approval by the Community Preservation Committee

**RTS Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Current Year Requests						710,342	710,342
Cash							
Receipts & Reserves	175,200	108,100	321,095		215,927		710,342
Other Available Funds		144,000			22,073		
Total - Cash	175,200	252,100	321,095		238,000		710,342
Debt							
Fee Supported	400,000	324,400			269,000		
Total - Debt	400,000	324,400			269,000		
Total	575,200	576,500	321,095		507,000	710,342	710,342

**RTS Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Enterprise Fund Reserves							
Specialty Equipment	175,200	108,100	215,316				
Message Board			30,000				
Transfer Station Office Trailer			75,779				
Refurbish Unit 5 - Swap-loader with Attachments					120,000		
RTS Stormwater Plan					50,000		
Replace Unit 67 (Grinder)						43,086	43,086
Replace Unit 80 (International)						211,256	211,256
RTS Property Improvements					45,927	290,000	290,000
Transfer Station Floor Replacement						166,000	166,000
Other Available Funds							
Waste Containers (Unexpended Article Balance)		34,000					
Large Specialty Equipment (Unexpended Article Balance)		110,000					
RTS Property Improvements (Unexpended Article Balance)					22,073		

**RTS Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Debt							
RTS Soil Remediation	400,000						
Waste Handler		324,400					
Front End Loader					269,000		

Notes
 ^ Some capital requests that are to be funded through debt did not include debt issuance costs, the proposed funding represents the addition of those expenses
 (3) Special financing/grants may be available through MWPAT or MWRA for this project

**Sewer Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Current Year Requests						590,000	600,000
Cash							
Receipts & Reserves	650,100	647,900	398,000	554,357	63,525		
Other Available Funds	197,000			116,143	10,335		
Total - Cash	847,100	647,900	398,000	670,500	73,860		
Debt							
Fee Supported							600,000
Total - Debt							600,000
Total	847,100	647,900	398,000	670,500	73,860	590,000	600,000

**Sewer Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Enterprise Fund Reserves							
Sewer Line Reconstruction	3,000						
Fleet Replacement - Core	33,100	47,900					
Sewer Systems Rehabilitation	550,000	600,000					
Infiltration & Inflow Removal Program							
Sewer Pump Station Improvements (West Street)			90,000				
Sewer SCADA System	30,000		258,000				
Sewer Pump Station Improvements (Reservoir A)				433,857			
Sewer Service Connections			50,000	50,000			
Sewer Specialty Equipment	34,000			70,500			
Sewer Main Extension Zone I and II					63,525		
Other Available Funds							
Sewer Line Reconstruction (Unexpended Article Balance)	197,000						
Sewer Pump Station Improvements (Unexpended Article Balance)				116,143			
Sewer Main Extension Zone I and II (Unexpended Article Balance)					10,335		
Debt							
Sewer Pump Station (Alden Road)^						590,000	600,000

Notes

^ Some capital requests that are to be funded through debt did not include debt issuance costs, the proposed funding represents the addition of those expenses

(3) Special financing/grants may be available through MWPAT or MWRA for this project

**Water Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Current Year Requests						1,657,824	1,771,074
Cash							
Receipts & Reserves	416,300	1,563,100	729,050	980,179	345,679		471,074
Other Available Funds				181,925			
Total - Cash	416,300	1,563,100	729,050	1,162,104	345,679		471,074
Debt							
Fee Supported		5,565,100		635,000			1,300,000
Total - Debt		5,565,100		635,000			1,300,000
Total	416,300	7,128,200	729,050	1,797,104	345,679	1,657,824	1,771,074

**Water Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Enterprise Fund Reserves							
Irrigation Supply Facility Design		80,000					
SCADA System Upgrade		435,000					
Water Small Specialty Equipment		57,300					
Filter Media Replacement		115,000	238,050				
Mobile Record Keeping Devices GIS				35,000			
Water Supply Development			200,000	700,000			
Fire Flow Improvement Study					20,000		
Fleet Replacement - Core	117,000			41,604	43,679		
Water Service Connections	200,000	160,000	200,000	200,000	200,000	200,000	200,000
Water System Rehabilitation Program	99,300	715,800	91,000	3,575	82,000		
Trail Improvement Project - Needham Reservoir							75,000
Fleet - Replace Unit 20						34,729	34,729
Fleet - Replace Unit 24						29,345	29,345
Tractor Excavator Replacement (Unit 115)						132,000	132,000
Other Available Funds							
Water System Rehabilitation Program (Unexpended Article Balances)				181,925			

**Water Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Debt							
St Mary's Pump Station		5,565,100					
Water System Rehabilitation Program (3)^				635,000		1,261,750	1,300,000

Notes

^ Some capital requests that are to be funded through debt did not include debt issuance costs, the proposed funding represents the addition of those expenses

(3) Special financing/grants may be available through MWPAT or MWRA for this project

Town of Needham
 Capital Improvement Plan
 January 2017

All Capital Funds							
Funding Sources							
Description	Funded FY2013	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Requested FY2018	Proposed FY2018
Current Year Requests						48,992,633	37,903,883
Cash							
Cash	3,901,633	6,499,941	2,935,479	5,849,606	3,707,117		6,902,467
Retained Earnings	1,241,600	2,319,100	1,448,145	1,534,536	625,131		1,181,416
Other Available Funds	2,475,000	219,000		618,373	334,408		2,100,000
Total - Cash	7,618,233	9,038,041	4,383,624	8,002,515	4,666,656		10,183,883
Debt							
Operating Revenues	3,905,000	9,847,500	1,700,000	5,735,000	769,000		15,720,000
CPA Surcharge							12,000,000
Debt Excluded				7,000,000	58,305,000		
Total - Debt	3,905,000	9,847,500	1,700,000	12,735,000	59,074,000		27,720,000
Total	11,523,233	18,885,541	6,083,624	20,737,515	63,740,656	48,992,633	37,903,883

**Debt Service to Revenue
 Issued, Authorized and Proposed
 FY2018 - FY2022**

Description	2017	2018	2019	2020	2021	2022
Revenue						
General Fund Within the Levy (5)	\$139,052,518	\$144,266,987	\$149,676,999	\$155,289,886	\$161,113,257	\$167,155,004
General Fund Excluded from Levy (2)	\$5,858,662	\$7,232,225	\$7,981,749	\$10,795,367	\$12,395,662	\$16,834,370
CPA Revenue	\$2,660,750	\$2,417,819	\$2,478,264	\$2,540,221	\$2,603,727	\$2,668,820
RTS Revenue	\$1,181,928	\$1,192,247	\$1,116,845	\$1,108,906	\$1,076,972	\$1,087,545
Sewer Revenue	\$8,191,198	\$7,788,110	\$7,960,988	\$7,617,031	\$7,937,075	\$7,979,111
Water Revenue	\$5,570,529	\$5,406,768	\$5,377,161	\$4,866,489	\$5,234,557	\$5,259,127
Total Revenue	\$162,515,585	\$168,304,157	\$174,592,007	\$182,217,900	\$190,361,250	\$200,983,977
Debt Service						
General Debt (Table I)	\$4,060,070	\$4,358,722	\$4,490,310	\$4,658,696	\$4,833,398	\$4,367,729
CPA Debt (Table II)	\$456,313	\$449,163	\$1,501,494	\$1,570,775	\$1,630,675	\$1,615,791
RTS Debt (Table III)	\$150,000	\$150,000	\$64,175	\$45,709	\$3,144	\$2,978
Sewer Debt (Table IV)	\$1,500,000	\$1,030,000	\$1,135,297	\$723,083	\$974,188	\$946,595
Water Debt (Table V)	\$1,550,000	\$1,346,034	\$1,275,820	\$724,134	\$1,050,779	\$1,033,511
Gross Excluded Debt (Table VI)	\$6,647,255	\$7,927,373	\$8,676,897	\$11,490,515	\$13,090,810	\$17,529,518
Total Debt Service	\$14,363,638	\$15,261,292	\$17,143,993	\$19,212,912	\$21,582,992	\$25,496,121
Total Debt Service to Total Revenue	8.8%	9.1%	9.8%	10.5%	11.3%	12.7%
Total Debt Service to Total Revenue (less MSBA) *	8.4%	8.7%	9.5%	10.2%	11.0%	12.4%
General Debt Service to General Revenue	2.9%	3.0%	3.0%	3.0%	3.0%	2.6%

(5) FY2018 - FY2022 revenue is based on the FY2017 General Fund recurring revenue estimate increased by 3.75% annually

(2) Excludes Massachusetts School Building Assistance (MSBA) Revenue.

*** Uses net general fund debt excluded figure (or actual debt to be paid by Town after MSBA payment) see table VI.

Projected Debt Service as a Percentage of Revenue

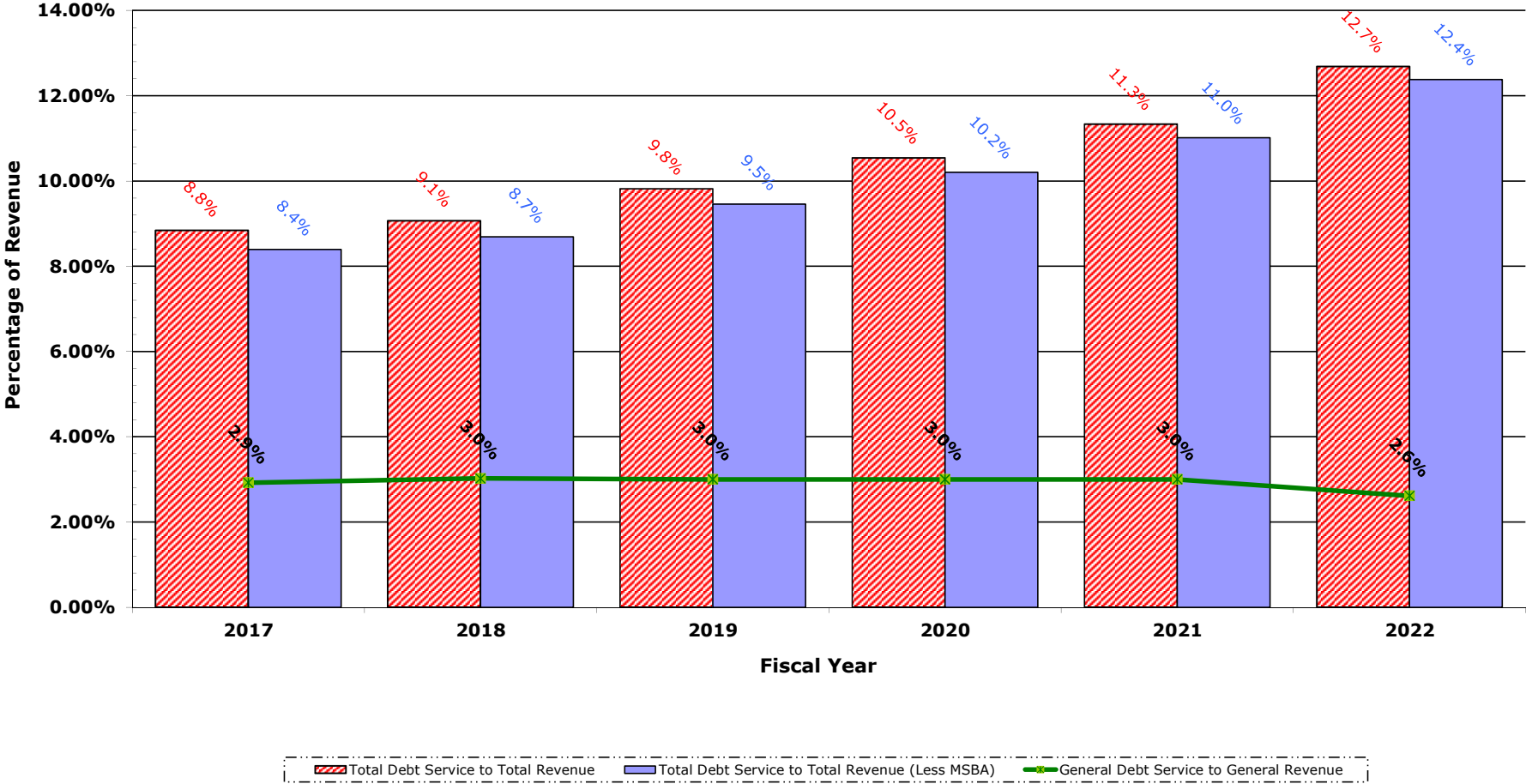


Table I
General Fund Capital Projects
Proposed Funding by Debt
FY2018

Project	Amount	Bond Rate%	Budget	Estimated Debt Service Schedule				
			2017	2018	2019	2020	2021	2022
General Fund Within the Levy								
Fuel Island Relocation Project (2018)	\$1,320,000	6.25%			\$347,500	\$330,938	\$314,375	\$297,813
Public Works Infrastructure Program (2018)	\$500,000	6.25%			\$131,250	\$125,000	\$118,750	\$112,500
Public Works Infrastructure Program (2019)	\$250,000	6.50%				\$66,250	\$63,000	\$59,750
Rosemary Pool (2018)	\$3,000,000	6.50%			\$555,000	\$615,750	\$336,500	\$323,500
High School Combined Project (2018)	\$9,000,000	6.50%			\$240,000	\$586,500	\$1,225,625	\$1,182,400
Memorial Park Building (2018)	\$2,000,000	6.50%			\$330,000	\$317,000	\$304,000	\$291,000
Pollard Blue and Green Gyms (2019)	\$760,000	6.50%				\$209,400	\$189,000	\$179,250
Fuel Island Allocation to Enterprise 20%					(\$69,500)	(\$66,188)	(\$62,875)	(\$59,563)
Projected New General Fund Debt Service	\$16,830,000				\$1,534,250	\$2,184,650	\$2,488,375	\$2,386,650
General Fund Debt								
Authorized & Issued (refer to schedule)			\$3,173,327	\$2,452,782	\$2,028,886	\$1,602,968	\$1,541,378	\$1,503,439
Authorized Not Yet Issued & Short Term Costs Proposed			\$886,743	\$1,905,940	\$927,174	\$871,078	\$803,645	\$477,640
					\$1,534,250	\$2,184,650	\$2,488,375	\$2,386,650
Total General Fund Debt Service Within the Levy			\$4,060,070	\$4,358,722	\$4,490,310	\$4,658,696	\$4,833,398	\$4,367,729
General Fund Within the Levy Revenue (1)			\$139,052,518	\$144,266,987	\$149,676,999	\$155,289,886	\$161,113,257	\$167,155,004
Debt Service as a Percentage of General Fund Revenue			2.9%	3.0%	3.0%	3.0%	3.0%	2.6%

(1) Before other offsets and credits

% Assumed interest rate on bonds, the interest rate on notes, if any, is at a lower rate.

Table II
CPA Capital Projects
Proposed Funding by Debt
FY2018

Project	Amount	Bond Rate ⁵	Budget	Estimated Debt Service Schedule				
			2017	2018	2019	2020	2021	2022
CPA Fund Debt								
Rosemary Pool (2018)	\$12,000,000	6.50%			\$1,060,000	\$1,140,250	\$1,214,000	\$1,210,750
Projected New CPA Fund Debt Service	\$12,000,000				\$1,060,000	\$1,140,250	\$1,214,000	\$1,210,750
CPA Fund Debt								
Authorized & Issued			\$456,313	\$449,163	\$441,494	\$430,525	\$416,675	\$405,041
Authorized Not Yet Issued & Short Term Costs Proposed					\$1,060,000	\$1,140,250	\$1,214,000	\$1,210,750
Total CPA Fund Debt Service			\$456,313	\$449,163	\$1,501,494	\$1,570,775	\$1,630,675	\$1,615,791

⁵ % Assumed interest rate on bonds, the interest rate on notes, if any, is at a lower rate.

Table III
Recycling & Solid Waste Disposal Capital Projects
Proposed Funding by Debt
FY2018

Project	Amount	Bond Rate%	Budget	Estimated Debt Service Schedule				
			2017	2018	2019	2020	2021	2022
Recycling & Solid Waste Disposal Enterprise (RTS)								
No New Authorizations Proposed for FY2018								
RTS Fleet Speciality Equipment (2022)	\$460,000	7.00%						
Fuel Island Allocation 1%					\$3,475	\$3,309	\$3,144	\$2,978
Projected New RTS Debt Service	\$460,000				\$3,475	\$3,309	\$3,144	\$2,978
RTS Enterprise Fund Debt								
Authorized & Issued (refer to schedule)			\$97,775	\$25,500				
Authorized Not Yet Issued & Short Term Costs Proposed			\$52,225	\$124,500	\$60,700	\$42,400		
					\$3,475	\$3,309	\$3,144	\$2,978
Total RTS Debt Service			\$150,000	\$150,000	\$64,175	\$45,709	\$3,144	\$2,978

% Assumed interest rate on bonds, the interest rate on notes, if any, is at a lower rate.

Table IV
Sewer Fund Capital Projects
Proposed Funding by Debt
FY2018

Project	Amount	Bond Rate%	Budget	Estimated Debt Service Schedule				
			2017	2018	2019	2020	2021	2022
<u>Sewer Enterprise</u>								
Sewer Pump Station Improvements Alden Road (2018)	\$600,000	6.25%			\$157,500	\$150,000	\$142,500	\$135,000
Sewer Pump Station Improvements Lake Drive (2020)	\$645,000	6.50%					\$171,925	\$163,475
Sewer Pump Station Improvements Cooks Bridge (2022)	\$3,450,000	7.00%						
Sewer Main Replacements (2020)	\$500,000	6.50%					\$132,500	\$126,000
Fuel Island Allocation 7%					\$24,325	\$23,166	\$22,006	\$20,847
Projected New Sewer Debt Service		\$5,195,000			\$181,825	\$173,166	\$468,931	\$445,322
Sewer Enterprise Fund Debt								
Authorized & Issued (refer to schedule)			\$1,082,931	\$1,025,700	\$953,472	\$549,917	\$505,256	\$501,273
Authorized Not Yet Issued & Short Term Costs Proposed			\$417,069	\$4,300	\$181,825	\$173,166	\$468,931	\$445,322
Total Sewer Debt Service			\$1,500,000	\$1,030,000	\$1,135,297	\$723,083	\$974,188	\$946,595

% Assumed interest rate on bonds, the interest rate on notes, if any, is at a lower rate.

Table V
Water Fund Capital Projects
Proposed Funding by Debt
FY2018

Project	Amount	Bond Rate%	Budget	Estimated Debt Service Schedule				
			2017	2018	2019	2020	2021	2022
Water Enterprise								
Water Distribution Improvements (2018)	\$1,300,000	6.25%			\$81,250	\$81,250	\$81,250	\$81,250
Water Distribution Improvements (2020)	\$5,075,000	7.00%					\$355,250	\$355,250
Fuel Island Allocation 12%					\$41,700	\$39,713	\$37,725	\$35,738
Projected New Water Debt Service	\$6,375,000				\$122,950	\$120,963	\$474,225	\$472,238
Water Enterprise Fund Debt								
Authorized & Issued (refer to schedule)			\$1,101,933	\$1,081,034	\$1,072,150	\$526,531	\$533,994	\$520,994
Authorized Not Yet Issued & Short Term Costs Proposed			\$448,067	\$265,000	\$80,720	\$76,640	\$42,560	\$40,280
					\$122,950	\$120,963	\$474,225	\$472,238
Total Water Debt Service			\$1,550,000	\$1,346,034	\$1,275,820	\$724,134	\$1,050,779	\$1,033,511

% Assumed interest rate on bonds, the interest rate on notes, if any, is at a lower rate

Table VI
Capital Projects
Proposed Funding by Debt Exclusion
FY2018

Project	Amount	Bond Rate%	Budget	Estimated Debt Service Schedule					
			2017	2018	2019	2020	2021	2022	
General Fund Debt Excluded									
DPW Seasonal Storage (2019)	\$6,860,000	6.50%					\$790,900	\$768,475	\$746,050
Public Safety Facilities (2019)	\$63,450,000	7.00%			\$131,250	\$2,220,750	\$2,220,750	\$2,220,750	\$6,981,500
Projected New General Fund Debt Service Excluded	\$70,310,000				\$131,250	\$3,011,650	\$2,989,225	\$2,989,225	\$7,727,550
General Fund Debt Excluded									
Authorized & Issued (refer to schedule)			\$6,647,255	\$6,404,661	\$6,191,664	\$5,906,715	\$4,829,135	\$4,660,618	\$4,660,618
Authorized Not Yet Issued & Short Term Costs Proposed				\$1,522,712	\$2,353,983	\$2,572,150	\$5,272,450	\$5,141,350	\$5,141,350
					\$131,250	\$3,011,650	\$2,989,225	\$2,989,225	\$7,727,550
Total General Fund Excluded Debt Service			\$6,647,255	\$7,927,373	\$8,676,897	\$11,490,515	\$13,090,810	\$13,090,810	\$17,529,518
Projected SBA Payments/Other Adjustments			\$788,593	\$695,148	\$695,148	\$695,148	\$695,148	\$695,148	\$695,148
Net General Fund Excluded Debt Service (1)			\$5,858,662	\$7,232,225	\$7,981,749	\$10,795,367	\$12,395,662	\$12,395,662	\$16,834,370

(1) Before other offsets and credits

**Previously Approved Debt Funded Capital
 Open Authorizations
 Balances Not Yet Issued**

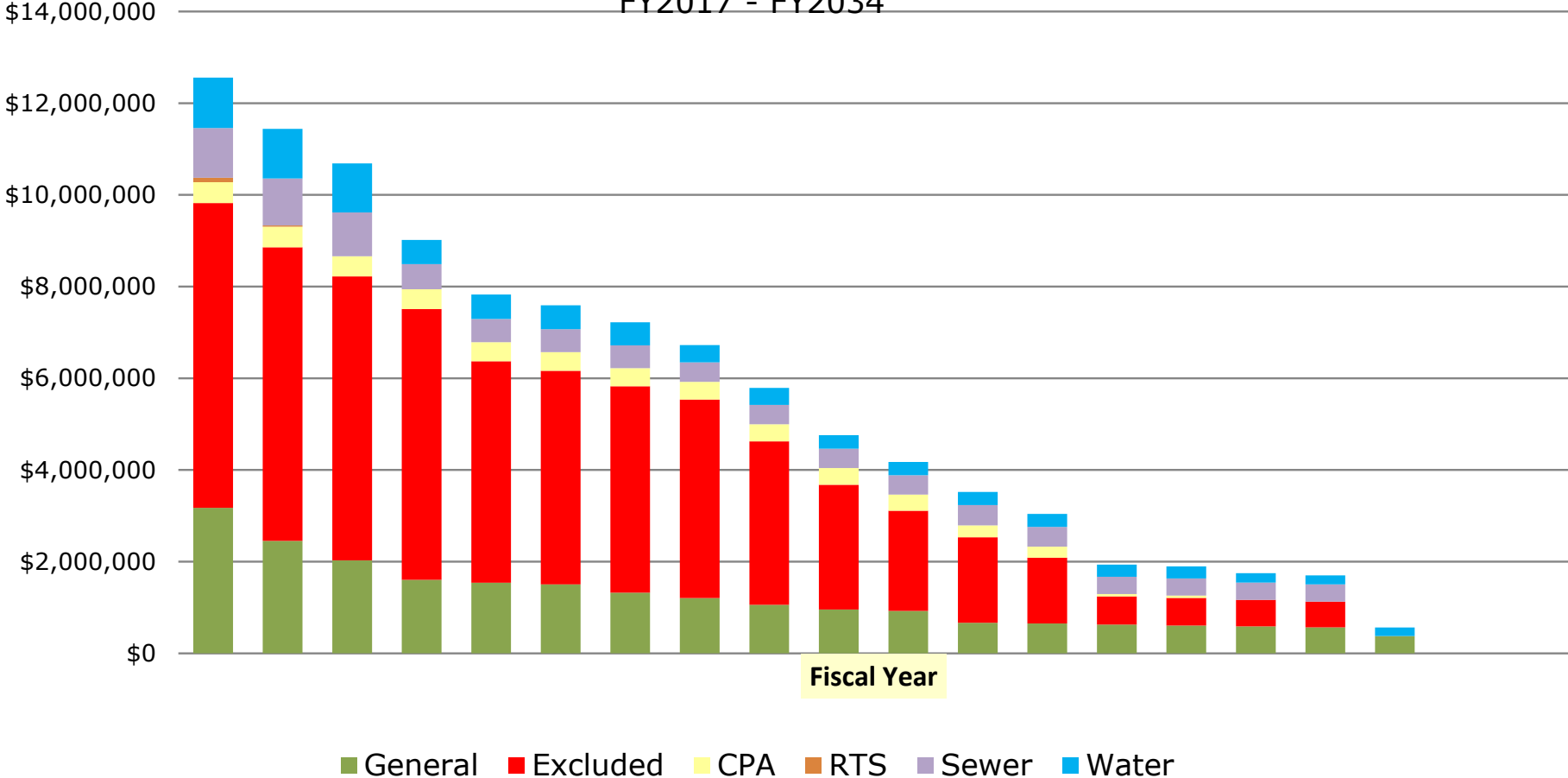
Approved	Project	Town Meeting	Art	Authorized	Balance
2008	Sewer System Rehabilitation I/I Work	16-May-07	45	\$1,806,800	\$59,159
2012	Sewer Pump Station Reservoir B	07-Nov-11	15	\$6,300,000	\$170,000
2013	RTS Remediation	13-Nov-12	16	\$400,000	\$116,000
2014	St Mary's Pumping Station	13-May-13	47	\$5,565,100	\$625,000
2015	Central Avenue/Elliot Street Bridge	12-May-14	39	\$900,000	\$610,000
2016	Central Avenue/Elliot Street Bridge	11-May-15	43	\$2,000,000	\$1,660,000
2016	High School Cafeteria Construction	02-Nov-15	11	\$2,100,000	\$2,100,000
2016	Owens Farm Land Purchase	02-Nov-15	13	\$7,000,000	\$7,000,000
2016	Public Works Infrastructure Program	11-May-15	42	\$1,000,000	\$1,000,000
2016	Water System Rehabilitation Program	11-May-15	47	\$635,000	\$585,000
2017	Central Avenue Elementary School	05-Oct-16	2	\$57,542,500	\$57,542,500
2017	Property Acquisition - 609 Central Avenue	09-May-16	7	\$762,500	\$762,500
2017	Public Works Infrastructure Program	11-May-16	44	\$500,000	\$500,000
2017	RTS Front-End Loader	02-May-16	46	\$269,000	\$269,000
Total				\$86,780,900	\$72,999,159

The above projects are in various stages of completion and therefore the amount and timing of each Note and Bond issue has not yet been determined. The debt retirement will be structured to fit within the proposed budget allocation shown in the debt tables.

**Town of Needham
 Current Long Term Debt Service Obligations
 Inclusive of the June 16, 2016 Bond Issue**

Fiscal Year	General	Excluded	CPA	RTS	Sewer	Water	Total
2017	\$3,173,327.31	\$6,647,255.02	\$456,312.50	\$97,775.00	\$1,082,930.90	\$1,101,933.11	\$12,559,533.84
2018	\$2,452,781.92	\$6,404,661.25	\$449,162.50	\$25,500.00	\$1,025,700.33	\$1,081,034.09	\$11,438,840.09
2019	\$2,028,886.17	\$6,191,663.75	\$441,493.75		\$953,472.34	\$1,072,149.64	\$10,687,665.65
2020	\$1,602,968.22	\$5,906,715.00	\$430,525.00		\$549,916.96	\$526,531.18	\$9,016,656.36
2021	\$1,541,377.52	\$4,829,135.00	\$416,675.00		\$505,256.32	\$533,993.60	\$7,826,437.44
2022	\$1,503,438.77	\$4,660,617.50	\$405,040.63		\$501,272.93	\$520,993.56	\$7,591,363.39
2023	\$1,323,593.77	\$4,501,237.50	\$395,256.26		\$497,240.95	\$503,022.42	\$7,220,350.90
2024	\$1,205,680.02	\$4,331,445.00	\$384,906.26		\$424,559.50	\$377,413.08	\$6,724,003.86
2025	\$1,058,977.52	\$3,563,185.00	\$374,762.51		\$423,230.66	\$368,595.41	\$5,788,751.10
2026	\$956,002.52	\$2,720,760.00	\$364,681.26		\$421,802.39	\$296,002.26	\$4,759,248.43
2027	\$924,584.39	\$2,184,400.00	\$354,306.26		\$420,276.63	\$289,632.26	\$4,173,199.54
2028	\$667,601.26	\$1,864,317.50	\$259,996.88		\$443,252.24	\$283,785.00	\$3,518,952.88
2029	\$649,915.64	\$1,434,918.75	\$241,637.50		\$430,929.00	\$283,288.06	\$3,040,688.95
2030	\$626,611.27	\$615,257.50	\$51,812.50		\$374,907.65	\$267,663.04	\$1,936,251.96
2031	\$607,438.76	\$600,698.75	\$50,625.00		\$374,987.84	\$261,387.51	\$1,895,137.86
2032	\$587,577.50	\$579,397.50			\$375,070.14	\$206,775.00	\$1,748,820.14
2033	\$567,080.00	\$561,845.00			\$375,154.05	\$195,650.00	\$1,699,729.05
2034	\$377,800.00					\$184,600.00	\$562,400.00
2035							

Current Total Annual Long Term Debt Service By Category FY2017 - FY2034



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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVI				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
Title V Loans	01-May-97	\$85,894	(see note)	\$5,662.92	\$5,391.28	\$5,119.64	\$4,853.91					
MWPAT 98-92	06-May-98	\$364,979	(see note)	\$32,701.87	\$31,149.37	\$29,874.01	\$28,566.79					
Public Services Administration Building (Series I)	27-Oct-08	\$4,000,000	3.16%	\$319,125.00	\$312,525.00	\$306,225.00	\$299,325.00	\$292,125.00	\$284,625.00	\$1,223,212.50		
Public Services Administration Building (Series II)	27-Oct-08	\$1,000,000	3.07%	\$84,062.50	\$82,356.25	\$80,487.50	\$78,537.50	\$86,437.50	\$84,093.75	\$236,812.50		
Town Hall Project (Series I)	18-May-09	\$2,500,000	2.24%	\$307,500.00								
Town Hall (Series III)	18-May-09	\$385,000	2.63%	\$31,781.26	\$31,281.26	\$30,781.26	\$30,250.01	\$29,656.26	\$29,031.26	\$134,484.42		
Parking Lot Improvements	05-May-08	\$100,000	2.00%	\$20,200.00								
Kendrick Street Bridge Repair	12-May-10	\$750,000	2.21%	\$84,187.50	\$82,687.50	\$81,187.50	\$79,593.75	\$77,812.50	\$75,937.50			
Public Services Administration Bldg.	27-Oct-08	\$100,000	3.69%	\$12,450.00	\$12,150.00	\$11,800.00	\$11,400.00	\$11,000.00	\$10,600.00	\$10,200.00		
Property Acquisition 59 Lincoln Street & 89 School Street	14-May-12	\$52,500	2.93%	\$4,300.00	\$4,210.00	\$4,105.00	\$3,985.00	\$3,865.00	\$3,745.00	\$15,235.00	\$12,977.50	
Road, Bridges, Sidewalks and Intersection Improvement Program	03-May-10	\$306,500	2.72%	\$71,350.00	\$10,150.00							
Road, Bridges, Sidewalks and Intersection Improvement Program	02-May-11	\$600,000	2.82%	\$125,400.00	\$121,800.00							
Fire Engine	11-May-11	\$400,000	2.72%	\$101,500.00								
Public Services Administration Bldg.	27-Oct-08	\$20,000	2.95%	\$5,075.00								

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
Senior Center (Series I)	07-Nov-11	\$1,000,000	3.38%	\$77,256.26	\$75,506.26	\$73,506.26	\$71,506.26	\$69,756.26	\$68,256.26	\$318,781.30	\$310,484.41	
Property Acquisition - 59 Lincoln Street & 89 School Street	14-May-12	\$1,005,000	3.39%	\$78,000.00	\$76,250.00	\$74,250.00	\$72,250.00	\$70,500.00	\$69,000.00	\$322,500.00	\$333,500.00	
Property Acquisition - 37-39 Lincoln Street	16-May-12	\$605,000	3.39%	\$46,800.00	\$45,750.00	\$44,550.00	\$43,350.00	\$42,300.00	\$41,400.00	\$193,500.00	\$200,100.00	
Property Acquisition - 51 Lincoln Street	13-Nov-12	\$950,000	3.39%	\$76,325.00	\$74,575.00	\$72,575.00	\$70,575.00	\$68,825.00	\$67,325.00	\$295,325.00	\$300,150.02	
Street & Traffic Light Improvements	19-May-08	\$25,000	3.34%	\$5,275.00	\$5,100.00							
Road, Bridges, Sidewalks and Intersection Improvement Program	03-May-10	\$120,000	3.13%	\$40,600.00								
Road, Bridges, Sidewalks and Intersection Improvement Program	02-May-11	\$350,000	3.13%	\$116,725.00								
Senior Center (Series II)	07-Nov-11	\$5,050,000	3.54%	\$406,225.00	\$398,575.00	\$390,925.00	\$383,275.00	\$374,350.00	\$365,425.00	\$1,688,812.50	\$1,987,812.50	
Road, Bridges, Sidewalks and Intersection Improvement Program	03-May-10	\$129,000	2.00%	\$31,200.00	\$30,600.00							
Road, Bridges, Sidewalks and Intersection Improvement Program	02-May-11	\$150,000	2.00%	\$36,400.00	\$35,700.00							
Property Acquisition - 59 Lincoln Street & 89 School Street	14-May-12	\$117,500	2.00%	\$31,100.00	\$25,500.00							
Property Acquisition - 37-39 Lincoln Street	16-May-12	\$25,000	2.00%	\$5,200.00	\$5,100.00							
Property Acquisition - 51 Lincoln Street	13-Nov-12	\$150,000	2.00%	\$36,400.00	\$35,700.00							

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
Public Works Infrastructure Program	13-May-13	\$100,000	2.00%	\$26,000.00	\$25,500.00							
Public Works Infrastructure Program	07-May-12	\$210,000	2.00%	\$52,000.00	\$51,000.00							
DPW Complex - Garage Bays	13-May-13	\$800,000	2.09%	\$93,200.00	\$91,600.00	\$90,000.00	\$88,400.00	\$86,800.00	\$85,200.00	\$165,600.00		
Senior Center (Series III)	07-Nov-11	\$1,050,500	2.83%	\$79,300.00	\$78,200.00	\$77,100.00	\$76,000.00	\$74,900.00	\$73,800.00	\$336,225.00	\$397,725.00	
Public Works Infrastructure Program	07-May-12	\$190,000	3.67%	\$52,012.50	\$50,350.00	\$48,450.00						
Public Works Infrastructure Program	13-May-13	\$500,000	3.60%	\$136,875.00	\$132,500.00	\$127,500.00						
Property Acquisition - 66 - 70 Chestnut Street	04-Nov-13	\$1,330,000	3.35%	\$113,400.00	\$110,950.00	\$108,150.00	\$105,350.00	\$102,550.00	\$99,750.00	\$456,750.00	\$541,275.00	
Public Works Infrastructure Program	12-May-14	\$580,000	3.67%	\$158,775.00	\$153,700.00	\$147,900.00						
Central Ave & Elliot Street Bridge Design	14-May-14	\$250,000	3.67%	\$68,437.50	\$66,250.00	\$63,750.00						
Pollard School Roof Replacement	10-Nov-10	\$725,000	3.67%	\$92,375.00	\$90,125.00	\$82,600.00	\$79,800.00	\$77,000.00	\$74,200.00	\$71,400.00		
Pollard School Boiler Replacement	13-May-13	\$565,000	3.22%	\$82,250.00	\$80,150.00	\$78,050.00	\$75,950.00	\$73,500.00	\$71,050.00			
Pollard School Boiler Replacement	13-May-13	\$95,000	2.00%	\$25,900.00	\$20,400.00							
GENERAL FUND DEBT SERVICE WITHIN THE LEVY				\$3,173,327.31	\$2,452,781.92	\$2,028,886.17	\$1,602,968.22	\$1,541,377.52	\$1,503,438.77	\$5,468,838.22	\$4,084,024.43	

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
High Rock School - Designs	01-Nov-06	\$480,000	3.91%	\$27,625.00	\$26,625.00	\$25,593.75						
High Rock & Pollard School Projects	16-May-07	\$1,120,000	3.91%	\$66,300.00	\$63,900.00	\$61,425.00						
High School (Series IIA)	12-May-03	\$9,000,000	3.89%	\$585,650.00	\$564,450.00	\$542,587.50						
High School (Series IIB)	07-Feb-05	\$2,000,000	3.91%	\$116,025.00	\$111,825.00	\$107,493.75						
High Rock & Pollard School Projects (Series III)	16-May-07	\$5,000,000	4.69%	\$293,487.50	\$282,556.25	\$270,962.50						
High School (Series III)	07-Feb-05	\$3,850,000	3.42%	\$283,450.00	\$275,450.00	\$267,450.00	\$259,450.00	\$253,450.00	\$247,200.00	\$1,132,250.00	\$109,200.00	
High Rock & Pollard School Projects (Series IV)	16-May-07	\$10,500,000	3.35%	\$787,862.50	\$772,600.00	\$758,031.25	\$742,075.00	\$720,500.00	\$703,312.50	\$3,231,937.50	\$1,144,000.00	
Newman School Extraordinary Repairs (Series I)	02-Nov-09	\$1,000,000	2.62%	\$110,000.00	\$107,375.00	\$104,500.00	\$101,500.00					
Newman School Extraordinary Repairs (Series III)	02-Nov-09	\$5,000,000	3.35%	\$395,300.00	\$389,700.00	\$383,750.00	\$373,600.00	\$359,600.00	\$348,925.00	\$1,616,700.00	\$539,475.00	
Broadmeadow School	01-May-00	\$8,400,000	3.00%	\$857,150.00	\$828,300.00	\$801,325.00	\$771,225.00	\$741,425.00	\$708,700.00	\$1,320,600.00		
Library Project	07-May-03	\$6,510,000	3.00%	\$902,000.00	\$870,550.00	\$830,475.00	\$796,775.00					
Newman School Extraordinary Repairs (Series IV)	02-Nov-09	\$9,000,000	2.82%	\$675,800.00	\$662,240.00	\$646,420.00	\$628,340.00	\$610,260.00	\$592,180.00	\$2,722,540.00	\$2,895,460.00	
Newman School Extraordinary Repairs (Series V)	02-Nov-09	\$2,200,000	3.39%	\$171,600.00	\$167,750.00	\$163,350.00	\$158,950.00	\$155,100.00	\$151,800.00	\$709,500.00	\$733,700.00	
Eliot School	01-May-00	\$2,562,000	3.94%	\$359,405.00	\$346,840.00	\$314,400.00	\$304,400.00	\$294,400.00	\$284,400.00	\$779,100.00		

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVI				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
High School Series 1	12-May-03	\$4,775,000	3.97%	\$712,625.00	\$674,300.00	\$653,700.00	\$589,000.00	\$560,400.00	\$542,000.00	\$1,965,000.00		
High Rock School Design (Refunding Bond)	01-Nov-06	\$187,770	4.00%	\$8,868.18	\$7,340.00	\$7,340.00	\$31,840.00	\$30,840.00	\$29,840.00	\$118,630.00		
High Rock & Pollard School Projects	16-May-07	\$429,470	4.00%	\$18,527.43	\$16,860.00	\$16,860.00	\$75,660.00	\$68,360.00	\$66,160.00	\$275,970.00		
High School (Series IIA)	12-May-03	\$2,991,900	4.00%	\$125,529.75	\$117,600.00	\$117,600.00	\$602,700.00	\$582,900.00	\$558,200.00	\$1,547,400.00		
High School (Series IIB)	07-Feb-05	\$782,850	4.00%	\$33,598.38	\$30,740.00	\$30,740.00	\$128,740.00	\$124,740.00	\$115,840.00	\$520,730.00		
High Rock & Pollard School Projects (Series III)	16-May-07	\$2,253,010	4.00%	\$116,451.28	\$87,660.00	\$87,660.00	\$342,460.00	\$327,160.00	\$312,060.00	\$1,360,670.00	\$234,600.00	
EXCLUDED FROM LEVY LIMIT DEBT SERVICE				\$6,647,255.02	\$6,404,661.25	\$6,191,663.75	\$5,906,715.00	\$4,829,135.00	\$4,660,617.50	\$17,301,027.50	\$5,656,435.00	

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	DEBT SERVICE	DEBT SERVICE
											2023 - 2027	After 2027
Town Hall (Series II)	18-May-09	\$3,500,000	3.36%	\$276,012.50	\$272,112.50	\$267,968.75	\$260,900.00	\$251,150.00	\$243,715.63	\$1,129,487.55	\$394,634.38	
Town Hall (Series III)	18-May-09	\$1,225,000	2.63%	\$101,700.00	\$100,100.00	\$98,500.00	\$96,800.00	\$94,900.00	\$92,900.00	\$430,350.00		
Town Hall (Series IV)	18-May-09	\$970,000	2.80%	\$78,600.00	\$76,950.00	\$75,025.00	\$72,825.00	\$70,625.00	\$68,425.00	\$314,075.00	\$209,437.50	
COMMUNITY PRESERVATION FUND DEBT SERVICE				\$456,312.50	\$449,162.50	\$441,493.75	\$430,525.00	\$416,675.00	\$405,040.63	\$1,873,912.55	\$604,071.88	
Soil Remediation	13-Nov-12	\$140,000	3.31%	\$26,375.00	\$25,500.00							
Construction Equipment	06-May-13	\$210,000	2.00%	\$71,400.00								
RTS ENTERPRISE FUND DEBT SERVICE				\$97,775.00	\$25,500.00							

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
MWPAT 97-13	28-Oct-96	\$67,700	(see note)	\$6,288.05	\$6,106.89	\$6,150.00						
MWPAT 97-33	28-Oct-96	\$180,300	(see note)	\$16,720.92	\$16,208.29	\$16,195.00						
MWPAT 97-63	05-May-97	\$1,019,778	(see note)	\$94,916.69	\$91,683.46	\$91,840.00						
MWPAT 98-10	05-May-97	\$130,200	(see note)	\$12,114.16	\$11,683.18	\$11,685.00						
Sewer Rehabilitation - Rte 128 Area	07-Nov-05	\$2,000,000	4.35%	\$102,500.00								
Sewer Pump Station - GPA	11-May-05	\$500,000	3.17%	\$56,000.00	\$54,000.00	\$52,000.00						
Sewer Rehabilitation - Rte 128 Area	07-Nov-05	\$320,000	3.39%	\$21,937.50	\$21,525.00	\$21,131.25	\$20,700.00	\$20,250.00	\$19,781.25	\$91,143.75	\$46,700.00	
Sewer Pump Station GPA	19-May-08	\$550,000	3.36%	\$42,050.00	\$41,225.00	\$40,437.50	\$39,575.00	\$33,750.00	\$32,968.75	\$151,906.25	\$77,900.00	
Sewer Rehabilitation - Rte 128 Area	07-Nov-05	\$145,000	2.59%	\$16,350.00	\$15,956.25	\$15,525.00	\$10,150.00					
Sewer System Rehabilitation I/I (MWRA)	16-May-07	\$220,990		\$44,198.00								
Sewer Pump Station Design (Reservoir B)	04-May-09	\$90,000	2.79%	\$15,675.00	\$15,225.00							
Sewer Pump Station Reservoir B - MWPAT (Revised 05/23/2013)	07-Nov-11	\$6,034,290	2.15%	\$374,005.59	\$374,065.92	\$374,128.59	\$374,191.96	\$374,256.32	\$374,322.93	\$1,872,660.13	\$2,249,700.92	
Sewer - West Street Force Main	01-May-98	\$568,400	3.98%	\$67,632.50	\$70,232.50	\$67,600.00						
Sewer - West Street Pumping Station	01-May-98	\$1,252,300	3.98%	\$151,669.00	\$149,269.00	\$147,680.00						

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
Sewer Rehabilitation - Rte 128 Area	07-Nov-05	\$500,000	4.00%	\$20,000.00	\$118,000.00	\$109,100.00	\$105,300.00	\$77,000.00	\$74,200.00	\$71,400.00		
Sewer Pump Station Reservoir B - MWPAT CW-11-11A	07-Nov-11	\$78,491	2.15%	\$40,873.49	\$40,519.84							
SEWER ENTERPRISE FUND DEBT SERVICE				\$1,082,930.90	\$1,025,700.33	\$953,472.34	\$549,916.96	\$505,256.32	\$501,272.93	\$2,187,110.13	\$2,374,300.92	
Water System Rehabilitation - Rte 128 Area	15-May-06	\$1,500,000	4.32%	\$102,500.00								
Water System Rehabilitation - Rte 128 Area	15-May-06	\$212,000	3.16%	\$22,400.00	\$21,600.00	\$20,800.00						
Water Storage Tank Rehabilitation	19-May-08	\$655,000	3.16%	\$72,800.00	\$70,200.00	\$67,600.00						
Water Service Connections	01-May-06	\$55,000	2.51%	\$5,487.50	\$5,350.00	\$5,218.75	\$5,075.00					
Water System Rehabilitation - Rte 128 Area	15-May-06	\$100,000	3.41%	\$7,312.50	\$7,175.00	\$7,043.75	\$6,900.00	\$6,750.00	\$6,593.75	\$30,381.25	\$15,700.00	
Water Distribution System	18-May-09	\$400,000	3.02%	\$31,687.50	\$31,031.25	\$30,312.50	\$29,562.50	\$28,812.50	\$28,031.25	\$78,937.50		
MWPAT Water DWS-08-24	19-May-08	\$765,335	2.00%	\$49,347.11	\$49,289.34	\$49,229.64	\$49,168.68	\$49,106.10	\$49,043.56	\$244,221.68	\$194,098.61	
St Mary's Pump Station	13-May-13	\$1,995,000	2.85%	\$146,775.00	\$144,775.00	\$142,775.00	\$140,775.00	\$138,775.00	\$136,775.00	\$650,875.00	\$789,225.00	
Water Treatment Facility	20-May-96	\$1,710,000	3.98%	\$202,593.00	\$201,393.00	\$204,360.00						
Water Treatment Facility	17-Nov-97	\$1,994,300	3.98%	\$236,610.50	\$239,210.50	\$240,760.00						

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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE				DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Amount Issued	Average Rate*	2017	2018	2019	2020	2021	2022	2023 - 2027	After 2027	
Water Main Improvements	19-May-08	\$400,000	3.95%	\$53,400.00	\$52,000.00	\$50,400.00	\$48,800.00	\$47,200.00	\$45,600.00	\$127,200.00		
St Mary's Pump Station	13-May-13	\$1,700,000	3.36%	\$145,500.00	\$142,350.00	\$138,750.00	\$135,150.00	\$131,550.00	\$127,950.00	\$585,750.00	\$684,125.00	
Water System Rehabilitation - Rte 128 Area (Refunding Bond)	15-May-06	\$638,000	4.00%	\$25,520.00	\$116,660.00	\$114,900.00	\$111,100.00	\$131,800.00	\$127,000.00	\$117,300.00		
WATER ENTERPRISE FUND DEBT SERVICE				\$1,101,933.11	\$1,081,034.09	\$1,072,149.64	\$526,531.18	\$533,993.60	\$520,993.56	\$1,834,665.43	\$1,683,148.61	
TOTAL				\$12,559,533.84	\$11,438,840.09	\$10,687,665.65	\$9,016,656.36	\$7,826,437.44	\$7,591,363.39	\$28,665,553.83	\$14,401,980.84	

Note: Massachusetts Water Pollution Abatement Trust (MWPAT) loans include many communities and multiple loans and are restructured from time to time by the Trust. The program provides grants and other financial assistance which in some instances results in a low or no interest rate loan.
* Rate reflects the average rate over the life of the loan.

Project Submissions

Section 3

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Capital Project Request

Project Title: **Town Offices Replacement Furniture**

Fiscal Year: **2019**

Purpose: **Acquisition**
 Department: **Town Manager**
 Partners:

Classification: **Equipment/Furniture**

Status: **New Request**
 Funding Source: **General Fund**

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$50,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$50,000	\$25,000	\$0	\$25,000	\$0
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$50,000	\$25,000	\$0	\$25,000	\$0

\$0

Capital Project Request

Project Title: Town Offices Replacement Furniture

Fiscal Year: 2019

Project Description and Considerations

Town Hall was renovated with new furniture when it re-opened in September, 2011. In FY2022, the furniture will be 10 years old and will need to start to be replaced, where applicable due to heavy wear and tear.

The Public Services Administration Building was opened as a new building with new furniture in February, 2010. In FY2022, the furniture will be 12 years old and the more worn and broken furniture will need to start to be replaced.

A furniture inventory, including current condition, has been done for the Town Hall and for the Public Services Administration Building and will be updated annually. It has been attached to this request.

In Fiscal Year 2019, furniture scheduled to be replaced would be the Town Hall's Board of Selectmen's conference table and chairs (to go around table) and as much of the poor and fair conditioned furniture as already established from the Public Services Administration Building.

In Fiscal Year 2022, furniture to be replaced will be as much of the stated "poorer condition" furniture as budget request would allow. Depending upon the condition of the furniture in out-lying years, this request may be repeated either annually or every other year.

FYI - replacement furniture prices at 2017 pricing: office task chairs \$700 each. 3 drawer regular file cabinets \$725 each. 15' wooden conference table \$8-10K, conference chairs \$350 each.

Capital Project Request

Fiscal Year: **2018**

Project Title: **Non-Public Safety Data Center Servers and Storage Units**

Purpose: **Acquisition** Classification: **Technology** Status: **New Request**
 Department: **Finance** Funding Source: **General Fund**

Partners:

Parameters	2018	2019	2020	2021	2022
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Obsolete/non-functioning**
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$325,000**
 Useful Life: **More than five (5) years but less than eight (8) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's:

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$325,000	\$145,000		\$180,000	
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$325,000	\$145,000	\$180,000	\$0	\$0

\$0

Capital Project Request

Project Title: **Non-Public Safety Data Center Servers and Storage Units**

Fiscal Year: **2018**

Project Description and Considerations

FY18 \$145,000.00 Data Center 1 and Data Center 3 Hardware Replacement
FY19 \$180,000.00 Data Center 1 and Data Center 2 Hardware Replacement

This project is for the replacement of hardware within the three Town of Needham data centers. Phase I of the project will be the replacement of four servers, two storage units, and four switches. Phase II of the project will be the replacement of six servers, two storage units, and four switches. Data Center 1 is housed at the Town Hall, Data Center 2 is housed at the Public Services Administration Building, and Data Center 3 is housed at The Center at The Heights. Data Center 1 is the primary data center where the Town Departments access files and programs, the internet, and network and internet security takes place. The six servers at Town Hall are physical servers however three of them maintain and support upwards of 50 virtual servers with corresponding data maintained on the storage units. The other three are for specific software functions. The servers, storage unit, and switches at the Public Services Administration Building act as fail over in case of the Town Hall network and infrastructure going offline. The server and storage at The Center at The Heights is where backup data is housed and from there certain segments of the data are migrated off site using a Carbonite business account. All of the servers are Dell PowerEdge R400 - R700 series, the storage units are Dell EqualLogic PS4000 - PS6000 series, and the switches are Dell PowerConnect 8000 series. All replacements would be comparable to the current devices being used. The importance of this project is to maintain hardware at a level that will support the needs of the Town Departments and allow for the continued model developed for Business Continuity. Using the Dell EqualLogics allow ITC to automatically copy over data from Data Center 1 to Data Center 2. As equipment gets older it becomes harder and harder to maintain the same level of quality and performance when initially installed directly effecting the day to day operation of the Town. There are currently ITC operating budget dollars used for licensing for the both hardware and software maintenance and support.

Capital Project Request

Project Title: **Public Safety Data Center Servers and Storage Units** Fiscal Year: **2019**

Purpose: **Acquisition** Classification: **Technology** Status: **New Request**
 Department: Finance Funding Source: General Fund
 Partners: Public Safety

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$90,000**
 Useful Life: **More than five (5) years but less than eight (8) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's:

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$90,000	\$30,000	\$60,000	\$60,000	\$0
Other Expenses	\$0				
TOTAL	\$90,000	\$30,000	\$60,000	\$60,000	\$0

Capital Project Request

Project Title: **Public Safety Data Center Servers and Storage Units**

Fiscal Year: **2019**

Project Description and Considerations

FY19 \$30,000.00 Digital Video Recorder

FY21 \$60,000.00 Public Safety Computer Aided Dispatch (CAD) Hardware Replacement

This project request consists of two elements used by Public Safety. The first element, Digital Video Recorder, is used internally and externally by the Needham Police Department. There are multiple cameras within the Needham Police Department from the front entrance to the jail cells and throughout the multiple hallways and areas. There are also several cameras on the external structure of the Public Safety Building as well as Town Hall that are managed through the Digital Video Recording hardware from the Police Department. These devices are used for safety and security of the officers and any other individuals who may find themselves within the Needham Police Department. The second element of the project request is the replacement of Public Safety CAD hardware installed during the FY15 upgrade of the Public Safety CAD software. The software piece of the Public Safety CAD project was funded by a capital request while the hardware piece of the Public Safety CAD project, as well as the Digital Video Recorder equipment, was funded using State 911 Grant Funds. However during CY15 the State put a hold on all future funding of the 911 Grants. Because of the uncertainty of the funding from the State it is important to place this request out into the future. There are currently ITC operating budget dollars used for licensing for the both the Digital Video Recording item. Dollars for the Public Safety CAD hardware and software maintenance and support will be available through savings starting FY18 due to the ending of support for the replaced Sungard Public Safety modules.

Capital Project Request

Project Title: **Public Safety Mobile Devices**

Fiscal Year: **2019**

Purpose: **Acquisition**
Department: Finance
Partners: Public Safety

Classification: **Technology**

Status: **Revised Request from the Prior CIP**
Funding Source: General Fund

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$70,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$70,000	\$35,000	\$35,000		
Other Expenses	\$0				
TOTAL	\$70,000	\$35,000	\$35,000	\$0	\$0

Capital Project Request

Project Title: **Public Safety Mobile Devices**

Fiscal Year: **2019**

Project Description and Considerations

FY19 \$35,000.00 Public Safety Mobile Hardware Replacement
FY20 \$35,000.00 Public Safety Mobile Hardware Replacement

This project is for the replacement of laptops and tablets that are used in the Needham Police and Fire Department Vehicles. The hardware is used to access multiple applications during the the daily operations of either an individual or vehicle. The hardware communicates with the Public Safety CAD software as well as State and Federal databases. The devices themselves are hardened military specification hardware manufactured for above normal use in more intensive environments than normal off the shelf hardware. The current hardware is a mix a Panasonic ToughBooks and ToughTablets. In the past the hardware was funded using State 911 Grant Funds. However during CY15 the State but a hold on all future funding of the 911 Grants. Because of the uncertainty of the funding from the State it is important to place this request out into the future. There are currently ITC operating budget dollars used for licensing for both hardware and software maintenance and support.

Capital Project Request

Project Title: **Center At The Heights Computer Lab Hardware / Software Replacement** Fiscal Year: **2020**

Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**

Department: **Finance** Funding Source: **General Fund**

Partners:

Parameters	2020	2021	2022	2023	2024
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$50,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$50,000				
Other Expenses	\$0				
TOTAL	\$50,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Center At The Heights Computer Lab Hardware / Software Replacement**

Fiscal Year: **2020**

Project Description and Considerations

FY 2020

The purpose of this request is to replace the hardware and upgrade software associated with the Center At The Heights (CATH) Computer Lab. This will include 20 desktops, 4 laptops, a server, switch, and firewall. Also being upgraded would be any software associated with the specific operation. Typically throughout other departments across the Town the Information Technology Center (ITC) looks at individual pieces of hardware and determines it's need for replacement. However since this equipment and software was purchased and installed at the same time as well as the nature of the use it will be better to keep the same make and models of hardware and software instead of mixing and matching. New models will be able to take advantage of upgraded operating systems and faster processors to better serve the users of the Computer Lab. If the funding does not occur there is currently not sufficient funding in the ITC budget to cover the cost of replacing the added pieces of hardware. Outside of this request for replacement the move of the Council on Aging to the CATH more than double the number of computers for that department. That in itself will draw more funds from the ITC over time making it harder to use currently budgeted dollars for the replacement of hardware and software in the CATH Computer Lab.

Capital Project Request

Project Title: **Revenue and General Ledger/Accounting Software Package Replacement** Fiscal Year: **2021**

Purpose: **Acquisition** Classification: **Technology** Status: **New Request**
 Department: Finance Funding Source: General Fund
 Partners: Treasurer's Office, Accounting Department, Finance Department, School Business Office, School Human Resources, Payrol, IT Services

<u>Parameters</u>		<u>Response</u>
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?		No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?		No
3. Does the project support activities to produce new revenue for the Town?		Yes
4. Does this project require any permitting by any Town or State agency?		No
5. If funded, will additional permanent staff be required?		No
6. If funded, will the operating budget need to be increased to cover operating expenses?		Yes
7. If funded, will this project increase the operating expense for any other department?		No
8. If funded, will this project lower the requesting Department's operating costs?		No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?		Yes
10. If the project is NOT funded, will current Town revenue be reduced?		No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?		Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?		No
13. Is this a request in response to a Court, Federal, or State order?		No
14. Is this a request in response to a documented public health or safety condition?		No
15. Is this a request to improve or make repairs to extend the useful life of a building?		No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?		No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?		No
18. Will any other department be required to provide assistance in order to complete the project?		Yes

Primary Reason for the Request: Operational efficiency
 How was the Estimated Project Cost Determined: In-House Estimate
 Useful Life: Between eight (8) and twelve (12) years
 Budget Impact: May increase annual operating expenses between \$5,001 and \$25,000
 Total New FTE's:
 Estimated Project Cost: \$1,100,000

Project Budget Elements	2021	2022	2023	2024	2025
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$1,100,000				
Other Expenses	\$0				
TOTAL	\$1,100,000	\$1,100,000	\$0	\$0	\$0

Capital Project Request

Project Title: **Revenue and General Ledger/Accounting Software Package Replacement**

Fiscal Year: **2021**

Project Description and Considerations

FY21 \$1,100,000 Revenue and General Ledger/Accounting Software Package Replacement

The Revenue and General Ledger/Accounting Software Package Replacement is a request to replace the current Revenue and General Ledger/Accounting Software Packages. The current Revenue Application was first purchased in 1996 and has gone through several versions since the original implementation. Its primary function is the collection of Real Estate and Personal Property Tax, Excise Tax, Utility Fees, and Miscellaneous Revenues collected among both Town and School Departments. There are other modules that are incorporated with the Revenue Package and these include Customer Information, Land /Parcel Management, and Cash Receipts. There has been a need for better reporting out of the Revenue package which is currently housed on an IBM piece of hardware. All of the specialized programming and process in the Revenue Application is done using COBOL which in combination with the IBM hardware is becoming more and more difficult for the Information Technology Center (ITC) to support. Migrating both the application and hardware to a non-IBM piece of hardware would bring that specific application and hardware into the business model currently in place in the ITC. The General Ledger/Accounting Software Package has been in place since FY14. The movement to a different vendor providing the General Ledger/Accounting Software Package has been both beneficial and troublesome at the same time. Though some reporting, requisition, and rollover processes have seen improvement the fact that the Revenue and General Ledger/Accounting packages are from two different vendors and hardware types has caused some problems. Most of those problems involve certain processes becoming more tedious and time consuming leading to delays in departments disseminating information. These processes range from revenue posting, cash reconciliation, bank account reconciliation, and personnel reporting. The complexity of the Town's payroll has also pushed the limits of the General Ledger/Accounting package leading to some confusion from certain employee groups about the line items on payroll checks and direct deposit notices. There may need to be additional cost increases for ongoing annual maintenance in comparison to the current Revenue and General Ledger/Accounting Software Packages. It is difficult to say the exact amount at this time but is anticipated the these cost will be more due to the complex nature of the Town's business and the level of application needed. Also after implementation there may be situations that may require programming specialization which the vendor would supply. The planning and implementation for this project will involve multiple Town departments (Treasurer's Office, Accounting Office, Assessor's Office, Human Resources) as well as School departments (Business Office, Human Resources, Payroll, Information Technology Services).

Capital Project Request

Project Title: **Town Side Multi-Function Printer Devices** Fiscal Year: **2021**

Purpose: **Acquisition**
 Department: Finance
 Partners:

Classification: **Technology**

Status: **New Request**
 Funding Source: **Revolving Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$142,400**

Project Budget Elements	Project Budget	2021	2022	2023	2024	2025
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$142,400	\$35,600	\$35,600	\$35,600	\$35,600	\$35,600
Other Expenses	\$0					
TOTAL	\$142,400	\$35,600	\$35,600	\$35,600	\$35,600	\$0

Capital Project Request

Project Title: **Town Side Multi-Function Printer Devices**

Fiscal Year: **2021**

Project Description and Considerations

- FY21 \$30,000 Multiple MFP Copiers Hardware Replacement
- FY22 \$30,000 Multiple MFP Copiers Hardware Replacement
- FY23 \$30,000 Multiple MFP Copiers Hardware Replacement
- FY24 \$30,000 Multiple MFP Copiers Hardware Replacement

This project is for the replacement of multi-function printers throughout the four primary Town locations (Town Hall, Public Services Administration Building, Public Safety, Center at The Heights) due to either being obsolete or part of a planned schedule replacement. In all there are nine of these devices between the buildings with only three of the devices not purchased during a capital project. Though several of these devices are currently over 5 years old only one has reached 50% of the anticipated life cycles for each model. Based on the current usage the expected life of these devices is between 10 and 12 years. During their replacement they would be replaced with devices similar in specifications. Due to the time out till replacement it is difficult to give an actual make and model that would be purchased. The current devices are listed below.

- 1) Public Services Administration Building, 1st Floor, Ricoh Aficio MP 7501
- 2) Public Services Administration Building, 2nd Floor, Ricoh Aficio MP 7500
- 3) Public Services Administration Building ,2nd Floor , Ricoh Aficio MP 8001
- 4) Town Hall, Lower Level, Ricoh Aficio MP 7501
- 5) Town Hall, 1st Floor, Ricoh Aficio MP 7501
- 6) Town Hall, Lower Level, Ricoh Pro 1357EX
- 7) Center at the Heights Copy Room RICOH MP C5503
- 8) Public Safety, Police, Konica Minolta Biz Hub 350
- 9) Public Safety, Fire, Konica Minolta Biz Hub 350

Capital Project Request

Project Title: **Technology Systems and Applications Updates**

Fiscal Year: **2022**

Purpose: **Acquisition**

Classification: **Technology**

Status: **New Request**

Department: Finance
 Partners: DPW Engineering

Funding Source: **Revolving Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$100,000**

Project Budget Elements	Project Budget	2022	2023	2024	2025	2026
Planning/Feasibility		\$0				
Design/Engineering		\$0				
Land/ROW Acquisition		\$0				
Site Preparation		\$0				
Construction		\$0				
Construction Management		\$0				
Equipment		\$0				
Furniture, Fixtures, and Equipment		\$0				
Technology Hardware/Software		\$100,000				
Other Expenses		\$0				
TOTAL		\$100,000	\$100,000	\$0	\$0	\$0
		\$0				

Capital Project Request

Project Title: **Technology Systems and Applications Updates**

Fiscal Year: **2022**

Project Description and Considerations

FY22 \$100,000.00 Imagery and Planimetric Data Updates

1) Imagery and Planimetric Data Updates:

The Imagery and Planimetric Data Updates (previously titled Geographic Information Systems Upgrade) project is a request for a flight to update aerial imagery and then use that aerial imagery to update the Town's planimetric data. The aerial imagery and planimetric data is used across Town departments but it is most used by Public Works Engineering using computer aided design (CAD) software and the Information Technology Center Geographic Information System (GIS) Administrator using GIS software (ESRI, Inc) in support of multiple Town and School Departments. CAD and GIS are systems that use hardware and software for storage, retrieval, mapping, analysis, design, and planning. The planimetric data is the electronic representation of above ground physical structures and features. These physical structures and features are then associated with layers in CAD and geospatial information and databases in GIS which then allows for the different departments to use the planimetric data for needs specific to each department. The updated planimetric data will be incorporated into the Town's web GIS as well as secure web GIS sites accessed by DPW Divisions for viewing and querying as well as the Engineering Division using the data for planning and design projects. Because Water & Sewer, Planning, Conservation and other Town and School Departments use or request services specific to the planimetric data it is important to have up to date data so these departments can plan, analyze and display with as accurate a representation of the physical structures and features. Licensing costs to use the data through specific software are currently paid through the operating budget. The use of new planimetrics and imagery will not directly cause any increase to these costs.

Capital Project Request

Fiscal Year: **2018**

Project Title: **Fleet Replacement Program**

Status: Revised Request from the Prior CIP

Classification: Rolling Stock

Funding Source: General Fund

Purpose: Acquisition

Department: Finance

Partners: Public Work, Public Facilities, Public Safety, Health and Human Services; Needham Schools

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: Other (see below for information)

How was the Estimated Project Cost Determined: In-House Estimate

Useful Life: More than five (5) years but less than eight (8) years

Budget Impact: Negligible impact on the annual operating expenses less than \$5,000

Total New FTE's:

Estimated Project Cost: \$7,693,400

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$7,693,400				
Furniture, Fixtures, and Equipment	\$0		\$1,959,162	\$521,855	\$1,955,412
Technology Hardware/Software	\$0	\$2,252,146			
Other Expenses	\$0				
TOTAL	\$7,693,400	\$2,252,146	\$1,959,162	\$521,855	\$1,955,412

\$0

Capital Project Request

Project Title: **Fleet Replacement Program**

Fiscal Year:

2018

Project Description and Considerations

The Town's fleet replacement program is funded through both the capital plan and the operating budget. A major equipment expense for the Town is rolling stock. The Town relies upon many types and sizes of vehicles in order to provide services, respond to emergencies, maintain public facilities, and improve the infrastructure in the community. The fleet replacement program consolidates all vehicles and special equipment attachments under one submission, but allocation of resources is looked at on a department by department basis rather than as one global replacement schedule. Needs and purposes for equipment differ significantly, and no department can do its work without the equipment. We classify the fleet program in three categories: core fleet (general purpose vehicles), special purpose/high value vehicles, and snow and ice equipment. The program is intended to centrally present and review the Town's rolling stock operations in order to ensure timely, cost effective, and high quality replacement of vehicles, maintenance, fueling, and short-term transportation. However, School Department and Police Department vehicles are not included in this request. The School Department vehicles are shown in a separate request. The Police Department vehicles are funded through the operating budget as many vehicles in the department do not meet the threshold to be considered part of the capital program. A majority of the Town's fleet maintenance and management is performed by the Garage Division of the Public Works Department. Other maintenance work is provided off-site by vendors due to factors such as specialized work, volume, or warranty.

Energy Efficiency

Managing and maintaining a fleet of more than 200 vehicles – from passenger vehicles to large heavy duty diesel trucks and tractors – involves some of the Town's most environmentally consequential choices. Considering the number of vehicles purchased and the thousands of gallons of fuel used, the fleet represents one of the Town's most opportunities to meet its goal of environmentally responsible and sustainable operations.

The most obvious and substantial environmental impacts of the fleet for the Town are, of course, tailpipe emissions and fuel use. However, an environmentally superior fleet encompasses a number of other factors, only some of which are under the control of fleet operations. For example, the Town's ability to influence vehicle manufacturing is limited, even though the process involves huge amounts of material extraction, use of natural resources and is responsible for significant air and water pollution. The elements that the Town's fleet operations can control or influence to achieve a cleaner and greener fleet include the following:

- Fleet size
- Fuel use, type and amount
- Fueling procedures - preventing pollution from incidental fuel spills
- How vehicles are maintained, e.g. avoiding oil leaks, ensuring proper tire inflation, etc.
- Use of maintenance materials, e.g., alternatives to hydraulic fluids, or recycled anti-freeze
- Use of recycled oil, anti-freeze and, as appropriate, tires
- Use, storage and disposal of hazardous materials used in vehicle maintenance
- Vehicle type, e.g., fuel efficiency, size and availability of alternatives

The Town's fleet replacement program was established in FY2015. This represents a budget and schedule for the Town's rolling stock fleet of appropriately 220 vehicles, trailers, and large specialized attachments and the School Department fleet of 14 vans and buses. General purpose vehicles include pickup trucks, a variety of sedans, SUV's, vans, and police vehicles (87). They comprise approximately 39 percent of the entire fleet. General purpose vehicles are utilized in every department and are relatively inter-changeable. The replacement of these vehicles can proceed on a regular schedule and should be considered part of the Town's base recurring costs.

Capital Project Request

Project Title: Fleet Replacement Program

Fiscal Year:

2018

Supplemental Information

The Town relies on a number of trailers for the purpose of moving tools and equipment, hauling trash and debris, and transporting special equipment. The Town has 47 trailers which represents approximately 23 percent of the fleet.

Specialized, high value vehicles, and snow and ice equipment comprise of the other 38 percent of the fleet. These vehicles and equipment are just as integral to Town operations as the general purpose vehicles, but serve the unique purposes of specific departments or divisions. Included in this group are the high value vehicles such as ambulances, large dump trucks, fire engines, street sweepers, and others for which appropriations need to be planned.

The vehicle replacement program will involve several components to be implemented over the course of FY2017 and beyond. The Town recently received a completed study of the Town's fleet by an independent consultant (Fleet Counselor Services), who was hired through a grant that was provided to the Town by MIIA, the Town's insurer. The purpose of the study was to review the Town's fleet replacement, utilization, and safety practices and compare them to Industry Best Practices. The intent and goal of the fleet replacement program is to: Replace vehicles before service delivery is impacted negatively; maximize vehicle availability for all user departments; minimize costs from vehicle downtime and emergency maintenance and operational costs; take advantage of opportunities to implement new technology to achieve fuel conservation and reduced emissions; promote safety, reliability and operational efficiencies; and enhance the public image of the Town's fleet.

The estimated cost of the identified replacements (including the school department) for core fleet, specialize equipment, and snow and ice equipment is \$7,693,399, which is down from the prior CIP five-year submission of \$8,106,774. The estimated core fleet replacement cost over the five year period is \$1,853,131 which is up from the prior CIP amount of \$1,671,837; specialized equipment is \$5,198,833 which is down from the prior CIP of \$5,597,674; and snow and ice equipment is \$641,436 which is down from the prior amount of \$837,263.

Portion of this expenses would be funded by the applicable enterprise fund.

	2018	2019	2020	2021	2022
RTS	\$254,342	\$0	\$ 34,783	\$0	\$455,611
Sewer	\$0	\$0	\$609,249	\$ 60,046	\$643,923
Water	\$ 64,074	\$295,016	\$125,055	\$120,428	\$133,214

Specific Questions:

Question 6: If funded, will the operating budget need to be increased to cover operating expenses? Yes, as part of the fleet replacement program, there are recommendations to change some of the vehicles to a different types or increase the number of vehicles available for use. In those years where such a change is approved, there may be an increase in insurance, and perhaps specialized tools in order to better maintain the new equipment.

Question 7: If funded, will this project increase the operating expense for any other department? Increase costs may be incurred for any department that increases the number of vehicles used in the fleet. The Town's property and liability insurance budget will likely increase.

Question 18: Will any other department be required to provide assistance in order to complete the project? Yes, the Department of Public Works would take the lead on the procurement for most of the vehicles.

TOWN OF NEEDHAM
Capital Improvement Plan
January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year*	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
1	DPW Admin	2011	Ford Escape Hybrid	SUV	H	Supervisor vehicle; personnel transport	2019	\$28,524.00	31,625				
2	DPW Garage	2011	Ford F150 XL	Pick Up	G	Supervisor vehicle; personnel transport; equipment transport	2021	\$30,311.00				36,000	
3	DPW Garage	2012	Ford F450	Utility Truck	D	Vehicle field repairs; personnel transport; equipment transport	2022	\$57,812.17					71,066
4	DPW Garage	2006	Ford F350	Pick Up	D	Equipment Transport; Mechanic Vehicle for Snow & Ice Program	2019	\$50,557.17	56,054				
10	DPW Highway	2010	INTERNATIONAL 7400 Series	Dump Truck	D	Personnel transport; equipment transport including skidded sprayers, water tank, loam spreader, trailered	2020	\$208,275.00			239,000		
12	DPW Parks	2009	Ford Escape Hybrid	SUV	H	Supervisor vehicle used to travel between job sites; personnel transport; field safety inspections;	2018	\$35,732.00	38,277				
14	DPW Water	2009	INTERNATIONAL 7400 Series	Dump Truck	D	Personnel transport; & supply transport for the water distribution maintenance program, including	2019	\$208,275.00	230,918				
15	DPW Admin	2008	Ford Taurus	Sedan	G	Personnel transport; supervisory in snow & ice program	2018	\$33,122.00	35,481				
17	DPW Sewer	2012	Ford F550	Dump Truck	D	Personnel, equipment, & supply transport for the sewer and drain maintenance program, including	2020	\$63,818.00			73,233		
19	DPW Sewer	2010	INTERNATIONAL 7400 Series	Dump Truck	D	Personnel, equipment, & supply transport for the sewer and drain maintenance program, including	2020	\$208,275.00			239,000		
20	DPW Water	2009	Ford Escape Hybrid	SUV	H	Supervisor vehicle used to travel between job sites; personnel transport; inspections; transport	2018	\$32,420.00	34,729				
22	DPW Water	2009	Ford F450	Utility Truck	D	Water Meter Service Call Vehicle	2019	\$57,812.17	64,097				
23	DPW Sewer	2011	Ford F350	Utility Truck	G	Supervisor vehicle; personnel, equipment, & supply transport for the sewer pump station operations; equipped with crane to lift and	2021	\$50,557.17				60,046	
24	DPW Water	2009	Ford F150	Pick Up	G	Equipment Transport	2018	\$27,394.00	29,345				
25	DPW Water	2012	Ford F450	Utility Truck	D	Emergency response vehicle equipped with tools necessary for rapid response repairs work.	2022	\$57,812.17					71,066
26	DPW Water	2011	Ford F150	Pick Up	G	Personnel, equipment, & supply transport for the water distribution system; transport gate wrenches,	2021	\$40,775.00				48,428	
27	DPW Water	2011	Ford F150	Pick Up	G	Equipment Transport; Supplies Transport;	2021	\$30,311.00				36,000	
28	DPW Sewer	2001	Ford F350	Utility Truck	G	sewer drain maintenance program vehicle equipped with specialized rodder used to clear sewer and	2020	\$50,557.17			58,016		
29	DPW Sewer	2008	INTERNATIONAL 7400 Series	Jet Vac	D	sewer drain maintenance program vehicle equipped with specialized jet	2020	\$208,275.00			239,000		
30	DPW Water	2012	Ford F550	Dump Truck	D	Personnel, equipment; & supply transport for the water distribution maintenance program, including	2020	\$63,818.00			73,233		
31	DPW Water	2011	Ford F150	Pick Up	G	Equipment Transport; Supplies Transport; Supervisor in Snow & Ice Program	2021	\$30,311.00				36,000	

TOWN OF NEEDHAM
Capital Improvement Plan
January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year**	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
32	DPW Highway	2012	Ford F350	Pick Up	D	Supervisor vehicle; personnel, equipment, & supply transport including specialty electronic tools	2022	\$40,775.00					50,123
37	DPW Sewer	2010	INTERNATIONAL 7500 Series	Vector	D	Clean catch basins & utility pipes	2022	\$359,000.00					441,303
38	DPW Parks	2007	INTERNATIONAL IH 4300 Series	Truck	D	Utility tree work; netting, gutter, light pole, & flag work; tows wood chipper	2019	\$179,782.00	199,328				
39	DPW Highway	2012	Ford F550	Dump Truck	D	transport for the street and sidewalk maintenance program including emergency response vehicle	2020	\$63,818.00			73,233		
40	DPW Water	2012	Ford F350	Pick Up	G	equipped with tools necessary for rapid response repair work;	2022	\$50,557.17					62,148
43	DPW Highway	2012	Ford F350	Pick Up	D	Supervisor vehicle; personnel, equipment, & supply transport including specialty electronic tools	2022	\$40,775.00					50,123
44	DPW Engineering	2011	Ford Escape Hybrid	SUV	H	Personnel transport; inspections	2019	\$28,524.00	31,625				
45	DPW Engineering	2012	FORD E150 VAN	Passenger Van	G	Personnel transport; surveying & inspections	2022	\$27,477.00					33,776
46	DPW Engineering	2011	Ford Escape Hybrid	SUV	H	Personnel transport; surveying & inspections	2019	\$28,524.00	31,625				
48	DPW Highway	2008	Ford F450	Utility Truck	G	transport; equipment transport including street signs, traffic signals, traffic control vehicle; personnel	2018	\$78,005.00	83,561				
52	DPW Highway	2009	Ford Escape Hybrid	SUV	H	Supervisor vehicle; personnel transport; field safety inspections;	2018	\$32,420.00	34,729				
55	DPW Highway	2011	Ford F550	Dump Truck	D	Personnel, equipment, & supply transport for the street and sidewalk maintenance program including	2019	\$63,818.00	70,756				
56	DPW RTS	2010	Ford F150	Pick Up	G	Supervisor vehicle; personnel transport	2020	\$30,311.00			34,783		
57	DPW Highway	2012	Ford F350	Pick Up	D	Supervisor vehicle; personnel, equipment, & supply transport including specialty electronic tools	2022	\$40,775.00					50,123
67	DPW RTS	2004	VERMEER GRINDER	Yellow Iron	D	Chipping & grinding brush; material processing	2018	\$40,221.00	43,086				
76	DPW Highway	2007	BOBCAT A300 SKID STEER	Equipment	D	construction work; Primary in Snow & Ice Program	2019	\$78,685.04	87,240				
80	DPW RTS	2010	INTERNATIONAL Truck	Truck	D	packer truck; removes msw & recycling from municipal buildings and properties	2018	\$197,210.00	211,256				
91	DPW RTS	2000	CONSTRUCTION SCALP TRUCK	Truck	G	Material Screening	2022	\$124,740.00					153,337
92	DPW Engineering	2012	FORD EXPLORER	SUV	G	Personnel transport; inspections; supervisor in snow & ice program	2020	\$33,450.00			38,385		
101	DPW Sewer	2010	CASE LOADER	Yellow Iron	D	Construction on sewer and/or drain pipe and sewer & drain maintenance; load material, move manholes, move	2022	\$164,832.00					202,621
102	DPW Highway	2008	JOHN DEERE LOADER 544J	Equipment	D	Loader; road & sidewalk construction; primary in snow & ice program	2020	\$158,150.00	181,481				

TOWN OF INEENAM
Capital Improvement Plan
January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year*	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
107	DPW Highway	2008	CAMOPLAST SW4S	Yellow Iron	D	Primary Vehicle in Snow & Ice Program	2020	\$162,400.00			186,358		
113	DPW Highway	2008	CAMOPLAST SW4S	Yellow Iron	D	Primary vehicle in snow & ice program	2020	\$162,400.00			186,358		
121	DPW Highway	2007	Vermac UTILITY TRAILER	Trailer	E	Alerting Public of Projects & Events	2022	\$18,000.00					22,127
122	DPW Highway	2007	Vermac UTILITY TRAILER	Trailer	E	Alerting Public of Projects & Events	2022	\$18,000.00					22,127
124	DPW Highway	2009	ADDCO MINI UTILITY TRAILER	Trailer		Alerting Public of Projects & Events	2022	\$21,500.00					26,429
129	DPW Highway	2000	CUSTOM FLATBED TRAILER	Trailer		Trailer used to transport highway equipment and materials including bobcat, pavers, berm machines, etc.	2018	\$11,217.00	12,016				
143	DPW RTS	2010	CASE LOADER	Yellow Iron	D	Rubbish processing; compost processing; primary in Snow & Ice Program	2022	\$245,900.00					302,274
151	DPW Water	2008	INGERSOLL RAND AIR COMPRESSOR	Trailer		Construction Work	2020	\$13,960.00			16,019		
164	DPW Water	2008	Trailer ATLAS Copco	Trailer MDT Generator	D	Providing portable power during power outages at pumping stations	2020	\$31,200.00			35,803		
168	DPW Parks	2010	GORMAN UTILITY TRAILER	Trailer	D	Pump used to empty Rosemary Pool and on fields during flood events	2022	\$30,674.00					37,706
181	DPW Highway	2012	Elgin PELICAN Sweeper	Equipment	D	Street Sweeping	2019	\$263,200.00		291,815			
182	DPW Highway	2010	ELGIN CROSSWIND SWEEPER	Truck	D	Street Sweeping	2019	\$263,200.00		291,815			
183	DPW Parks	2007	GIANT UTILITY LEAF PICKER TRAILER	Trailer	G	Removes leaves from fields and parks	2019	\$25,557.00		28,336			
186	DPW Parks	2010	GIANT LEAF VAC TRAILER	Trailer		Equipment Transport	2022	\$22,188.00					27,275
256	DPW Parks	2008	TRAILER UTILITY	Trailer	D	Chips tree debris	2020	\$38,348.00			44,005		
301	DPW Parks	2009	FORD E150 VAN	Passenger Van		Pool	2019	\$27,477.00		30,464			
328	DPW Parks	1998	Cross County Utility Trailer 16"	Trailer		Trails mowers, tractors, diamond renovators, sports goals, and other equipment, supplies, and materials	2018	\$4,995.00	5,351				
336	DPW Parks	2011	TORO Lawnmower	Tractor		Mowing large fields	2018	\$92,181.00	96,747				
350	DPW Parks	2010	JOHN DEERE TRACTOR LOADER 4720	Yellow Iron	D	Loans roading, park-soil, fertilizer, soil, and wood; attachments used for tilling, aeration, grooming, and fertilization	2022	\$44,755.93					55,016
400	Building Inspector	2005	Ford Taurus	Sedan	G	Field Work	2022	\$24,420.00					30,018
404	Human Services COA	2012	Ford E350 VAN	Passenger Van (14 Persons)		Passenger Transport	2022	\$81,545.50					100,240

TOWN OF NEEDHAM
Capital Improvement Plan
January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year*	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
452	Finance Assessing	2005	Ford Taurus	Sedan	G	Field Work	2019	\$32,252.00		35,758			
571	Police	2016	Ford Explorer	SUV	G		2018	\$30,380.00					
572	Police	2016	Ford Explorer	SUV			2018	\$30,380.00					
573	Police	2015	Ford Explorer K8A	SUV			2018	\$30,380.00					
574	Police	2016	Ford Explorer	SUV			2018	\$30,380.00					
581	Police Animal Control	2007	Ford F250	Utility Truck	G	Field Work	2018	\$41,020.00					
700	Facilities	2012	Ford Econ Van E250	Van	G	Electrician Vehicle; Equipment, Tools and Materials	2021	\$32,741.00				38,886	
704	Facilities	2005	Ford Econ Van E250	Van	G	HVAC Equipment, Tools, and Parts	2018	\$29,146.00	31,222				
707	Facilities	2008	Ford Econ Van E250	Van	G	HVAC Equipment, Tools, and Parts	2019	\$32,741.00		36,301			
712	Facilities	2011	Ford Econ Van E250	Van	G	Plumber Vehicle	2021	\$41,741.00				49,575	
713	Facilities	2012	Ford F450	Dump Truck	G	Grounds Work	2022	\$57,812.17					71,066
756	Facilities	2010	Ford F150	Pick Up	G	Field Work	2020	\$30,311.00			34,783		
Bus 14	School	2012	IC SCHOOL BUS	Mini Bus			2020	\$82,765.00			94,975		
C-01	Fire	2013	FORD EXPLORER	SUV	G	Command	2021	\$50,909.00				60,464	
C-06	Fire	2015	Ford F350	Pick Up	D	Emergency Response	2021	\$48,316.00					57,384
C-42	Fire	2011	Ford Sedan	Sedan	G	Command	2020	\$35,787.00			41,066		
E-02	Fire	1999	E-ONE CYCLONE II FIRE TRUCK	Fire Truck	D	Emergency Response	2019	\$601,000.00		666,339			
PV	School Delivery	2008	Ford Econ Van	Van			2018	\$31,610.00	35,861				
R-02	Fire	2008	FORD E450 AMBULANCE	Ambulance	D	Emergency Response	2018	\$209,738.00	224,677				
RB	Fire	1967	GATOR RESCUE BOAT TRAILER	Trailer		Equipment Transport & Emergency Response	2018	\$21,225.00	22,737				
Van 1	School	2011	FORD E150 VAN	Passenger Van			2020	\$30,689.00			35,216		

TOWN OF INEENAM
 Capital Improvement Plan
 January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year*	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
Van 10	School	2014	TOYOTA SIENNA	Van			2022	\$30,689.00					37,725
Van 2	School	2011	FORD E150 VAN	Passenger Van			2020	\$30,689.00			35,216		
Van 3	School	2011	FORD E150 VAN	Passenger Van			2018	\$30,689.00	32,875				
Van 4	School	2011	FORD E150 VAN	Passenger Van			2019	\$30,689.00		34,025			
Van 5	School	2011	FORD E150 VAN	Passenger Van			2019	\$30,689.00		34,025			
Van 6	School	2011	FORD E250 VAN	Passenger Van			2018	\$30,689.00	32,875				
Van 7	School	2012	FORD E250 VAN	Passenger Van			2021	\$41,708.00				49,536	
Van 8	School	2013	FORD E250 VAN	Passenger Van			2021	\$41,708.00				49,536	
Van 9	School	2014	TOYOTA SIENNA	Van			2022	\$30,689.00					37,725

Capital Project Request

Project Title: **Public Safety Complex/Station 2**

Fiscal Year: **2017**

Purpose: **Construction/Renovation**

Status: **Revised Request from the Prior CIP**

Department: **Town Manager**

Funding Source: **General Fund**

Partners: **Police, Fire, Public Facilities, Building Department, IT,**

Classification: **Building**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	Yes
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Other** (see below for information)

How was the Estimated Project Cost Determined: **Industry References**

Estimated Project Cost: **\$63,590,000**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **May increase annual operating expenses by more than \$100,000**

Total New FTE's: **2**

Project Budget Elements	2017	2018	2019	2020	2021
Planning/Feasibility	\$140,000				
Design/Engineering	\$3,750,000	\$3,750,000			
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$59,700,000		\$59,700,000		
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$63,590,000	\$140,000	\$3,750,000	\$59,700,000	\$0

\$0

Capital Project Request

Project Title: **Public Safety Complex/Station 2**

Fiscal Year: **2017**

Project Description and Considerations

The November 2, 2015 and February 10, 2016 Special Town Meetings approved funding for feasibility studies for the renovation or reconstructing of the Public Safety Building on Chestnut Street/School Street and Station 2 at the intersection of Highland Avenue and Webster Street.

The Police/Fire Station #1, originally built in 1931, was reconstructed in 1988 – 1989. The amount of space that was originally allocated within the building for the Police and Fire Departments is no longer sufficient to accommodate changes in operations, changing personnel needs, technology upgrades, and security improvements. The station is not fully accessible for individuals with limited mobility. Areas reviewed during the feasibility study in the Police Department included: insufficient locker space for female officers, evidence and property storage space, interview space and prisoner recording requirements, public meeting space needs, records storage, inadequate dispatch areas, patrol and administrative office space, report writing space and prisoner holding cells that do not meet state standards. The current prisoner booking area is unsafe due to its size and the setup of the room. The building lacks the ability to handle technology improvements due to available space needed while the roof continues to leak into the records /server room on the second floor. The current climate control only works sporadically throughout the building creating numerous temperature variations. Area reviewed in the Fire Department included apparatus bays that are too small for modern fire trucks; insufficient area for maintenance activities, minimal existing office space, and insufficient storage space. The study included a review of the operational needs of both departments, facility assessments, assessment of spatial needs within existing or an expanded facilities, alternatives analysis for demolition and rebuilding of new facilities, consideration of phasing/swing space, and a cost comparison of addition, renovation or rebuilding.

The feasibility study is nearing completion, and additional funding is requested in FY2018 to complete schematic design. Design Development/Construction Document funding in the amount of: \$2,350,000 (Station 1) and \$1,125,000 (Station 2) is also proposed for FY2018 at the fall, 2017 Special Town Meeting. Construction funding in the amount of: \$42,425,000 (station1) and \$17,275,000 (Station 2) is proposed for the 2018 Annual Town Meeting.

Project features continue to be refined and the design and construction estimates are subject to change.

4. Planning Board permitting will be required.
5. It is assumed that Station #2 will require the addition of .5 FTE custodian and Station #1 would require 1.5 FTE custodian.
7. Increases in building and grounds expenses, insurance and related costs will impact the PFD budget.
18. ITC assistance will be required.

Capital Project Request

Project Title: **Police cruiser radio replacement**

Fiscal Year: **2019**

Purpose: **Acquisition**
 Department: Police
 Partners:

Classification: **Equipment/Furniture**

Status: **Revised Request from the Prior CIP**
 Funding Source: General Fund

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **State Contract**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **The project should reduce the operating expenses**

Total New FTE's:

Estimated Project Cost:

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$80,563				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$80,563	\$80,563	\$0	\$0	\$0

-\$80,563

Capital Project Request

Project Title: **Police cruiser radio replacement**

Fiscal Year:

2019

Project Description and Considerations

The current police cruiser radio system has been in service for over nine years. This is the primary communication tool between the officers in the field and the police dispatch center. The eighteen radios are Motorola Astro Spectra series which are now discontinued by the manufacturer. While we currently do not have service agreements for the cruiser radios due to age of the radios, replacement parts will be increasingly difficult to acquire in the future. With this in mind, the department is proposing to replace 18 cruiser radios with a compatible radio system in FY 2019. At that time, these units will have been in service for fourteen years, which would be the end of their useful life cycle. The increase of \$9,652.00 over FY17 is the result of 11% adjustment /increase in the quote from the new state contract ITT57 MA State. This pricing reflects replacing our current fleet radios with the newer model.

Capital Project Request

Project Title: **Police Department Firearm Replacement**

Fiscal Year: **2020**

Purpose: **Acquisition**
 Department: Police
 Partners:

Classification: **Equipment/Furniture**

Status: **Revised Request from the Prior CIP**
 Funding Source: General Fund

Parameters	2020	2024
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No	No
3. Does the project support activities to produce new revenue for the Town?	No	No
4. Does this project require any permitting by any Town or State agency?	No	No
5. If funded, will additional permanent staff be required?	No	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No	No
7. If funded, will this project increase the operating expense for any other department?	No	No
8. If funded, will this project lower the requesting Department's operating costs?	No	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No	No
10. If the project is NOT funded, will current Town revenue be reduced?	No	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No	No
13. Is this a request in response to a Court, Federal, or State order?	No	No
14. Is this a request in response to a documented public health or safety condition?	No	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No	No
18. Will any other department be required to provide assistance in order to complete the project?	No	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$31,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$26,000		\$26,000		
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$5,000		\$5,000		
TOTAL	\$31,000	\$0	\$31,000	\$0	\$0

\$0

Capital Project Request

Project Title: **Police Department Firearm Replacement**

Fiscal Year:

2020

Project Description and Considerations

The current service weapon of the Police Department is a Smith and Wesson M&P 40 caliber. The weapon is outfitted with night sights and has a 15 round capacity in each magazine. The current weapon was placed into service in 2009, replacing a weapon that was in service for eight years. Based on a study conducted by the FBI and research done by our firearms instructors we would replace the Smith and Wesson 40 caliber with a 9MM firearm (make and model to be determined). The cost includes the new firearm and holsters the other expense (\$5000.) is for the purchase of new ammunition. The department intends to purchase 52 weapons.

Capital Project Request

Project Title: **Police Use of Force Simulator**

Fiscal Year: **2021**

Purpose: **Acquisition**

Classification: **Equipment/Furniture**

Status: **Same Request from the Prior CIP**

Department: **IT**

Funding Source: **General Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Public/employee health or safety**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$45,000**

Project Budget Elements	2021	2022	2023	2024	2025
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$45,000				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$45,000	\$45,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Police Use of Force Simulator**

Fiscal Year:

2021

Project Description and Considerations

This request is for a comprehensive interactive Use-Of-Force training simulator which will provide a platform for realistic, stress-induced training. The system provide scenarios that enhance marksmanship skills, but more importantly, they improve an officers decision making skills and the appropriate selection of force used. The simulator provides trainee's with the ability to practice posture, verbalization, soft hand skills, impact weapons, chemical spray and lethal force. They also provide a means for officers to practice skills in de-escalating a situation. Each trainee's scenario/reactions can be analyzed and reviewed for training purposes. The systems are portable and can be easily customized to meet the needs of the agency. The benefit of having an effective, realistic training program is to enhance public safety and reduce liability risks.

Capital Project Request

Fiscal Year: **2018**

Project Title: **Bunker Gear**

Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **New Request**
 Department: **Fire** Funding Source: **General Fund**
 Partners: **None**

Parameters	2018	2019	2020	2021	2022
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				No
3. Does the project support activities to produce new revenue for the Town?	No				No
4. Does this project require any permitting by any Town or State agency?	No				No
5. If funded, will additional permanent staff be required?	No				No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				No
7. If funded, will this project increase the operating expense for any other department?	No				No
8. If funded, will this project lower the requesting Department's operating costs?	No				No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				No
10. If the project is NOT funded, will current Town revenue be reduced?	No				No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				No
13. Is this a request in response to a Court, Federal, or State order?	No				No
14. Is this a request in response to a documented public health or safety condition?	Yes				Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				No
18. Will any other department be required to provide assistance in order to complete the project?	No				No

Primary Reason for the Request: **Public/employee health or safety**
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$322,665**
 Useful Life: **Between eight (8) and twelve (12) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's: **0**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$322,665	\$167,872	\$37,000	\$38,110	\$39,253
Technology Hardware/Software	\$0				\$40,430
Other Expenses	\$0				
TOTAL	\$322,665	\$167,872	\$37,000	\$38,110	\$39,253

TOTAL **\$322,665** **\$167,872** **\$37,000** **\$38,110** **\$39,253** **\$40,430**

Capital Project Request

Project Title: Bunker Gear

Fiscal Year:

2018

Project Description and Considerations

This request is for the purchase of a second set of Personal Protective Equipment, PPE ("bunker gear") for all fire line personnel in FY 2018. In the years to follow funding will be sought to continuously replace PPE over a five year period. The PPE requested includes boots, firefighting pants and coat. Our firefighting personnel regularly work in highly toxic environments caused by spills, chemical releases and the products of combustion. Numerous studies have found the number of carcinogens and other toxins associated with the fire ground to be extremely high. Further, the toxicity of these carcinogens appears to be much greater and more concentrated today, due to the wide spread use of synthetic and petroleum based building materials and furnishings found in modern construction. These unhealthy contaminants, chemicals, toxins and carcinogens adhere to our firefighter's "bunker gear", thus creating a lingering exposure concern for not only the firefighters wearing this equipment on a daily basis, but to members of the public they serve at any variety of calls for service. Recent research by NIOSH, CDC, National Fallen Firefighters Foundation and others clearly points to the increased risks of cancer due to firefighting and how wearing contaminated PPE adds to this risk. The following links may be helpful in understanding this research:

- <http://firefightercancersupport.org/wp-content/uploads/2013/08/Taking-Action-against-Cancer-in-the-Fire-Service.pdf>
- <http://www.cdc.gov/niosh/firefighters/ffCancerStudy.html>
- <http://www.everyonegoeshome.com/wp-content/uploads/sites/2/2016/03/Cancer-Alliance-January-2015.pdf>
- <http://www.cdc.gov/niosh/pgms/worknotify/pdfs/ff-cancer-factsheet-final.pdf>

Ignoring such research could be considered to negligent going forward.

Our Department has already taken measures to help reduce the risk of cancer, including outfitting each piece of apparatus with after action wipes to quickly remove carcinogens from responders skin while still in the field. However, current safety practices dictate that firefighters be issued two sets of PPE, so that once contaminated the equipment can be washed and dried in extractors and dryers designed specifically for that purpose. Our department has such equipment. A second set of PPE would allow for contaminated equipment to be wash, while allowing personnel to remain available to respond to calls. Research has found that wet PPE creates a breeding ground for unhealthy bacteria, as well, which is also harmful. Many communities within the MetroFire district, which Needham belongs to, have long issued firefighters two sets of PPE clothing so proper industrial hygiene can be accomplished. Others are in the process of doing so at this time. The supplemental field below has a list of communities within the MetroFire District and the number of PPE issued.

The guideline concerning the life span of this equipment is 10 years before replacement is required. Our current PPE ensembles are approaching this time frame for many of our members. Fortunately, with the number of recent and forthcoming new hires, about a third of the Department have been issued PPE within the past 5 years. No fire personnel have been issued a second set of PPE allowing them to properly maintain this equipment in a healthy manner. Once this initial set of additional firefighting gear is purchased, the Department will begin a planned rotational purchasing request annually, so that all firefighting PPE can be replaced within a 10 years schedule to ensure proper functioning and safety.

Fulfillment of this request will be greatly beneficial to the health and wellness of our personnel, as well as the public which we serve. In doing so, the exposure to occupational carcinogens will be reduced with the potential for a reduction in the number of our members contracting cancer from the work place. In turn this could result in a corresponding reduction in cancer related disability pensions saving funds in the future.

Capital Project Request

Project Title: **Bunker Gear** Fiscal Year: **2018**

Supplemental Information

COMMUNITY	SETS	NOTES
Arlington	NR	
Belmont	1*	The Dept. is in the process of adding a second set.
Boston	2	
Braintree	NR	NR DENOTES NO RELPY
Brookline	2	
Burlington	2	
Cambridge	2	
Chelsea	2	
Dedham	2	
Everett	2	
Lexington	2	
Lynn	2	
Malden	2	
Massport	1	
Medford	2	
Melrose	1*	Some members have two sets currently. The Dept. is in process of procuring a second set for all at this time
Milton	2	
Needham	1	
Newton	2	
Peabody	2	
Quincy	2	
Randolph	2	
Reading	2	
Revere	2	
Saugus	2	
Somerville	2	
Stoneham	1	
Wakefield	1	
Waltham	1*	Procurement for a second set is currently underway.
Watertown	1	
Wellesley	1	
Weston	2	
Weymouth	1	
Winchester	1	
Winthrop	NR	
Woburn	1	

Capital Project Request

Project Title: **Central Ave. School Walking Trails**

Fiscal Year: **2018**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **New Request**

Department: **Needham Public Schools**

Funding Source: **General Fund**

Partners: **Parks & Recreation, Conservation Commission, DPW**

<u>Parameters</u>		<u>Response</u>
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?		Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?		No
3. Does the project support activities to produce new revenue for the Town?		No
4. Does this project require any permitting by any Town or State agency?		Yes
5. If funded, will additional permanent staff be required?		No
6. If funded, will the operating budget need to be increased to cover operating expenses?		No
7. If funded, will this project increase the operating expense for any other department?		No
8. If funded, will this project lower the requesting Department's operating costs?		No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?		No
10. If the project is NOT funded, will current Town revenue be reduced?		No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?		No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?		Yes
13. Is this a request in response to a Court, Federal, or State order?		No
14. Is this a request in response to a documented public health or safety condition?		No
15. Is this a request to improve or make repairs to extend the useful life of a building?		No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?		No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?		Yes
18. Will any other department be required to provide assistance in order to complete the project?		Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Estimated Project Cost: **\$210,000**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

<u>Project Budget Elements</u>	<u>Project Budget</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Planning/Feasibility		\$0				
Design/Engineering		\$50,000				
Land/ROW Acquisition		\$0				
Site Preparation		\$0				
Construction		\$150,000				
Construction Management		\$10,000				
Equipment		\$0				
Furniture, Fixtures, and Equipment		\$0				
Technology Hardware/Software		\$0				
Other Expenses		\$0				
TOTAL		\$210,000	\$210,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Central Ave. School Walking Trails**

Fiscal Year: **2018**

Project Description and Considerations

This is a project to construct a trail walk behind the new Hillside School to be constructed on Central Avenue. All or a portion of this project will be constructed on land owned by the Town of Wellesley, but which has been licensed to the Town of Needham for this purpose. The project, along with another project to design and build a playing field and adjacent walkways at the new school on the licensed land, is considered a separate, but parallel project to the Hillside School building project, that would be timed with the design of the building.

The PPBC is working with Parks and Forestry, and the Conservation Department to explore opportunities to have some of the walking trails on the Wellesley-owned land constructed by the Student Conservation Association (SCA) (www.thesca.org/) in a project similar to those constructed in recent summers at Ridge Hill. If this is possible, the cost of the project potentially could be less than the \$210,000 budget proposed above. In addition, if this project is managed by the Conservation Department it may also be possible to avoid a full survey of the Wellesley parcel.

Preliminary Project Schedule:

Schematic Design/Design Development/ Project Funding Year: FY18

Construction: FY19

New School Opens: September 2019 (FY20)

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

CPA: This project may be eligible for CPA funding.

Improvements: This is a project to improve land located at the Central Avenue site, some or all of which may be located on land licensed by the Town of Wellesley.

Other Departmental Assistance: PPBC Project Management

This project is intended to be a separate, but parallel project to the Hillside School building project. Permitting may be required by the following agencies : Conservation Commission and Planning. This project may be eligible for Community Preservation Act funding

Capital Project Request

Project Title: **Full Day Kindergarten Space Study**

Fiscal Year: **2018**

Purpose: **Long Range Plan/Study**
Department: **Needham Public Schools**
Partners: **N/A**

Classification: **Building**

Status: **New Request**
Funding Source: **General Fund**

Parameters	2018	2021	2022
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No	No	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No	No	No
3. Does the project support activities to produce new revenue for the Town?	No	No	No
4. Does this project require any permitting by any Town or State agency?	No	No	No
5. If funded, will additional permanent staff be required?	No	No	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No	No	No
7. If funded, will this project increase the operating expense for any other department?	No	No	No
8. If funded, will this project lower the requesting Department's operating costs?	No	No	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No	No	No
10. If the project is NOT funded, will current Town revenue be reduced?	No	No	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No	No	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No	No	No
13. Is this a request in response to a Court, Federal, or State order?	No	No	No
14. Is this a request in response to a documented public health or safety condition?	No	No	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No	No	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No	No	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No	No	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes	Yes	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$50,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$50,000	\$50,000				
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$50,000	\$50,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Full Day Kindergarten Space Study**

Fiscal Year: **2018**

Project Description and Considerations

This is a space planning study for Full Day Kindergarten, for the purposes of developing a plan for accommodating the Kindergarten population within the District's five elementary schools and swing space, as needed. In addition, the study would identify needed retrofits to the space, and develop a project budget and funding timeline for these improvements that is timed with a September 2019 (FY20) implementation date for Full Day Kindergarten in Needham.

According to a preliminary analysis completed in June 2015 (and updated in December 2015), up to five additional classrooms are likely to be needed in the year of initial implementation, to accommodate the projected population of Kindergarteners at an average class size of 20 students. These classrooms could be provided by re-purposing non-traditional space at each elementary school, such as art/music/world language/technology classrooms, or by re-using available space at either the Pollard Middle School modulars or the existing Hillside School. Based on the accelerated schedule for completing construction of the new Hillside School at Central Avenue, the existing Hillside will become vacant in September 2019, when the new school is completed. The purpose of the study is to determine what spaces should be used and where, and what modifications should be undertaken to these spaces, if any. A placeholder request to fund these needed modifications is requested as a separate capital request, entitled "Full Day Kindergarten Space Modifications."

Parameters Addressed:

Other Departmental Assistance: PPBC or Public Facilities Project Management, Depending on Scope

Capital Project Request

Project Title: **Needham High School Classroom Expansion**

Fiscal Year: **2018**

Purpose: **Construction**
 Department: Needham Public Schools
 Partners: N?A

Status: **Revised Request from the Prior CIP**
 Funding Source: General Fund

Classification: **Building**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$7,270,100**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$502,700	\$377,025	\$125,675			
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$6,283,400		\$6,283,400			
Construction Management	\$125,700	\$37,703	\$87,997			
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$44,100		\$44,100			
Technology Hardware/Software	\$0					
Other Expenses	\$314,200		\$314,200			
TOTAL	\$7,270,100	\$414,728	\$6,855,372	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Needham High School Classroom Expansion

Fiscal Year: 2018

Project Description and Considerations

This project requests funding to add classroom space at Needham High School to support the anticipated student population of over 1,700 students by September 2015. Enrollment is expected to remain at or over 1,700 students through FY23. The existing capacity of the school is 1,450.

The maximum number of students per classroom in the 2008 renovated and expanded NHS was 22. Currently 25% of the academic classrooms have class sizes of 25 or more. The MSBA standard for classroom utilization rate is 85%. Currently, the utilization rate is at 90%+. Since 2008, several spaces at NHS have been repurposed to function as classrooms, however the number available is below the need. Further, the repurposing has compromised the overall operation of the educational program. In October 2014, Special Town Meeting approved \$200,000 to subdivide two large classroom spaces into four classrooms. In May 2016, Annual Town Meeting approved an additional \$65,000 to conduct a feasibility study of classroom expansion alternatives at NHS. As of this writing, that feasibility study designer selection is currently underway.

This request is a placeholder for the design and construction funds needed to develop between 6-8 classroom spaces at Needham High School, pending the results of the ongoing feasibility study. The placeholder costs are based on earlier estimates developed by Drummy Rosane Anderson Architects (2013, Option G) of constructing 6 modular-type classrooms near the epicenter of the school and in close proximity to the academic core. These estimates, which were updated by the Permanent Public Building Department (2015), have been escalated according to the chart on the next page. The "Other Expenses" category represents owner's contingency costs.

The project is revised from prior CIP to reflect the construction schedule shown below and to reflect a 5% inflation factor. In addition, the original project costs have been escalated by 20%, to account for the loss of construction synergy resulting from decoupling the cafeteria and classroom projects, and to reflect the phased construction schedule over two summers.

The project schedule and funding below represent a conservative estimate of when the project could be completed, given the current completion schedule for the ongoing feasibility study: draft report issued early June 2017 with a final report delivered in late June, 2017. The resulting schedule is for a school to be completed in September 2020 (FY21.) An alternative scenario, in which the feasibility study is completed prior to 2017 Annual Town Meeting, could result in an accelerated schedule that opens the classrooms in September 2019 (FY20.) The alternative schedule, which has not been endorsed or confirmed by the PPBC, is presented below.

Preliminary Project Schedule:

Feasibility Design: FY17 (\$65,000)
Design: FY18 (November '17 STM)
Project Funding Year: FY19 (November '18 STM)
Contract Award: FY19 (December '18)
Construction Beginning Year: FY20 (Summer 2019) - FY21 (Summer 2020)
New Spaces Open: September 2020 (FY21)

Potential Alternative Schedule:

Feasibility Design: FY17 (\$65,000)
Design: FY18 (May '17 ATM)
Project Funding Year: FY19 (May '18 ATM, with emergency preamble)
Contract Award: FY18 (June '18)
Construction Beginning Year: FY19 (Summer 2018) - FY20 (Summer 2019)
New Spaces Open: September 2019 (FY20)

Project Budget:

The "Other Expenses" budget category represents owners' contingency.

Capital Project Request

Project Title: **Needham High School Classroom Expansion**

Fiscal Year: **2018**

Parameters Addressed:

Permitting: As required by Town Boards.

Operating Budget Increase: New classrooms spaces will involve changes to HVAC configuration that may increase building maintenance expense (within the Public Facilities Department) by a negligible amount.

Other Departmental Assistance: PPBC Project Management

**NHS Modular 6 Classroom Addition & Renovation
 DRA, Revised 4/21/15 by PPBC
 Scheduled opening: September 2020 (FY21)**

	Feasibility	Construction*	Other Construction	A/E	FF&E	Owner's Contingency	Construction Management	Total	Cost/SF
11,128 SF Building									
2016 Project Cost (PPBC)	-	4,275,205	-	342,017	30,000	213,760	85,504	4,946,486	
20% Cost Escalator	-	855,041	-	68,403	6,000	42,752	17,101	989,297	
2016 Project Cost (REVISED)	0%	5,130,246	0%	410,420	36,000	256,512	102,605	5,935,783	\$533
		86%		7%	1%	4%	2%	100%	
5.80% FY17 Cost Multiplier	-	5,427,800	-	434,225	38,088	271,390	108,556	6,280,059	\$564
5.00% FY18 Cost Multiplier	-	5,699,190	-	455,936	39,992	284,959	113,984	6,594,062	\$593
5.00% FY19 Cost Multiplier	-	5,984,150	-	478,733	41,992	299,207	119,683	6,923,765	\$622
5.00% FY20 Cost Multiplier	-	6,283,357	-	502,669	44,092	314,167	125,667	7,269,953	\$653
1 Years TOTAL PROJECT COST	-	6,283,357	-	502,669	44,092	314,167	125,667	7,269,953	\$653
TOTAL COST (ROUNDED)	-	6,283,400	-	502,700	44,100	314,200	125,700	7,270,100	\$653
Square Footage		11,128							
2016 Total Project Cost - Caf� & 6 Classrooms		5,811,722		419,938	105,000	290,586	116,234	6,743,480	
2016 Less Caf� Only		1,536,517		77,921	75,000	76,826	30,730	1,796,994	
2016 Net Project Cost - 6 Classrooms Only		4,275,205		342,017	30,000	213,760	85,504	4,946,486	

Capital Project Request

Project Title: **NHS A Gym Upgrades** Fiscal Year: **2018**

Purpose: **Construction/Renovation**

Status: **Revised Request from the Prior CIP**

Department: Public Facilities

Funding Source: General Fund

Classification: **Building**

Partners: Needham Public Schools, NHS Athletics, Needham Booster Club

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	Yes
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$276,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$276,000	\$182,000	\$64,000	\$30,000		
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$276,000	\$182,000	\$64,000	\$30,000	\$0	\$0

Capital Project Request

Project Title: NHS A Gym Upgrades

Fiscal Year: 2018

Project Description and Considerations

This request is to upgrade the Needham High School A Gym. The NHS A Gym was not part of the 2009 renovation.

In FY 2017, the bleachers are being replaced. The bleachers are beyond their useful life and are difficult to use. The replacement modern bleachers will streamline opening and closing; the bleacher design will accommodate the proposed FY 2019 floor replacement and re-alignment. The FY 2017 design cost is for the ceiling and lighting work slated for FY 2018.

In FY 2018, the lighting and ceiling will be replaced. The lighting is presently inadequate. The ceiling is a drop ceiling and ceiling tiles are frequently damaged. This project would include both the replacement of the ceiling and the lighting.

In FY 2019, the gym floor will be sanded and relined, resulting in shifting the court three feet to the left. The existing game lines painted on the floor do not allow for enough standing room. This project would also include relocating the two main baskets and backboards as well as replacing the basketball winch mechanisms with key operated raising hoops.

In FY 2020, the scoreboard and shot clocks will be replaced. The basketball scoreboard and shot clocks are beyond their useful life. The system is based on incandescent bulb technology, which is not energy efficient. The technology is also outdated. The replacement will include an electronic LED scoreboard and one set of shot clocks with wireless controls and technology.

This gym is a high demand space for utilization by the community. There is potential for the Needham Booster Club and NHS Athletics to contribute to this project

4. Building & electrical permits will be required.
8. Energy efficiency upgrades will reduce energy costs, but PFD no longer is responsible for energy.
15. This request will modernize building components, thereby maximizing the usefulness of the building.
16. Bleachers, lighting, and gym components will be permanently installed.

Capital Project Request

Project Title: **Needham High School Boiler Replacement**

Fiscal Year: **2020**

Purpose: **Construction/Renovation**
 Department: Public Facilities
 Partners: Needham Public Schools

Status: **Revised Request from the Prior CIP**
 Funding Source: General Fund

Classification: **Building**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	Yes
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **The project should reduce the operating expenses**

Total New FTE's:

Estimated Project Cost: **\$840,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$100,800		\$100,800		
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$739,200		\$739,200		
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$840,000	\$840,000	\$0	\$0	\$0

Capital Project Request

Project Title: **Needham High School Boiler Replacement**

Fiscal Year: **2020**

Project Description and Considerations

This request is to remove all four existing cast iron units and replace with three high efficiency gas fired condensing units. The replacement boilers will be complete with controls suitable for connection to the Town's Building Management System and have burners with full modulation. The existing domestic hot water heater will also be replaced.

The new boiler system will be designed for natural gas and will increase the energy efficiency of the heating system at the High School. It will give the High School the ability to utilize more than two boilers at a time. The Town will pursue rebates with the utilities. Based on experience at the Pollard & Newman Schools, energy savings of 15-20% are expected.

4. Building & electrical permits will be required.

8. Energy efficiency upgrades will reduce energy costs, which are no longer handled by PFD.

15. This request will modernize the heating and hot water systems, thereby maximizing the usefulness of the building.

16. The boiler will be permanently installed at NHS.

Capital Project Request

Project Title: **Replacement of Needham High School Chiller**

Fiscal Year: **2018**

Purpose: **Construction**
 Department: **Public Facilities**
 Partners:

Classification: **Equipment/Furniture**

Status: **New Request**
 Funding Source: **General Fund**

Parameters	2018	2019	2020	2021	2022
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				No
3. Does the project support activities to produce new revenue for the Town?	No				No
4. Does this project require any permitting by any Town or State agency?	Yes				Yes
5. If funded, will additional permanent staff be required?	No				No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				No
7. If funded, will this project increase the operating expense for any other department?	No				No
8. If funded, will this project lower the requesting Department's operating costs?	No				No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				No
10. If the project is NOT funded, will current Town revenue be reduced?	No				No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				No
13. Is this a request in response to a Court, Federal, or State order?	No				No
14. Is this a request in response to a documented public health or safety condition?	No				No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes				Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes				Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				No
18. Will any other department be required to provide assistance in order to complete the project?	No				No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$478,849**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$60,000	\$60,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$418,849		\$418,849			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$478,849	\$60,000	\$418,849	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Replacement of Needham High School Chiller

Fiscal Year: 2018

Project Description and Considerations

This project will be to replace the chiller at the High School.

In FY 2016, the chiller at the High School stopped functioning. It is believed that this is due to the glycol level in the chiller being low. The glycol protects the chiller in the cold months from freezing. In the summer of 2016, Public Facilities rented a temporary chiller. In the summer of 2017, the department intends on continuing to rent a temporary chiller while a new chiller is designed.

In FY 2018, the design for the chiller will be required. The design is intended to include elements that will rectify the issues with the old chiller. In FY 2019, a new chiller will be installed at the High School.

- 4. Building and electrical permits will be required.
- 15. This request will modernize building components.
- 16. Building components will be permanently installed.

Capital Project Request

Project Title: **NHS Athletic Locker Reconfiguration & Addition** Classification: **Equipment/Furniture** Fiscal Year: **2020**

Purpose: **Acquisition** Status: **Revised Request from the Prior CIP**

Department: **Needham Public Schools** Funding Source: **General Fund**

Partners: **N?A**

Parameters	2020	2021	2022	2023	2024	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No
3. Does the project support activities to produce new revenue for the Town?						No
4. Does this project require any permitting by any Town or State agency?						No
5. If funded, will additional permanent staff be required?						No
6. If funded, will the operating budget need to be increased to cover operating expenses?						No
7. If funded, will this project increase the operating expense for any other department?						No
8. If funded, will this project lower the requesting Department's operating costs?						No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No
10. If the project is NOT funded, will current Town revenue be reduced?						No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No
13. Is this a request in response to a Court, Federal, or State order?						No
14. Is this a request in response to a documented public health or safety condition?						No
15. Is this a request to improve or make repairs to extend the useful life of a building?						No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No
18. Will any other department be required to provide assistance in order to complete the project?						Yes

Primary Reason for the Request: **Other** (see below for information)

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$45,200**

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$43,000	\$43,000				
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$2,200	\$2,200				
TOTAL	\$45,200	\$45,200	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: NHS Athletic Locker Reconfiguration & Addition

Fiscal Year: 2020

Project Description and Considerations

This request proposes to reconfigure and increase the number of student physical education lockers at NHS, to accommodate the increased student population. Currently, there are 508 lockers at NHS (269 in the boys' locker room and 239 in the girls' locker room.) The project will add 111 lockers in the boys' locker room and 104 lockers in the girls' locker room, for a new grand total of 723.

Currently, each locker room has small, medium and large lockers. The reconfiguration would remove the doors and frames from the medium and large lockers, and would create three new, small lockers from every two medium lockers, and three new small lockers from every one large locker. (The existing small lockers would remain unchanged.) This reconfiguration would yield 81 new boy's lockers and 80 new girls' lockers. Additionally, a new bank of 30 lockers would be added in the boys' locker room, and 24 new lockers will be added in the girls' locker room.

This project has been revised from the previous CIP to defer the funding year to FY20, in order to time this project with the classroom expansion improvements at NHS. The NHS Classroom Expansion request plans for construction to occur over two summers: Summer 2019 and Summer 2020. This request would allow for locker installation to occur during the 2019/20 school year vacation weeks and the Summer of 2020, in preparation for a September 2020 (FY21) opening.

Parameters Addressed:

Permanent Installation: The lockers will be permanently installed in the building.

Other Departmental Assistance: PFD Public Facilities Department

Capital Project Request

Project Title: **NHS Athletic Locker Reconfiguration & Addition**

Fiscal Year:

2020

Supplemental Information

**NHS Locker Replacement
 2015 Costs (Based on Vendor Estimate)**

	Feasibility	Construction *	A/E	5% Conting	Constr Mgmt	Total
FY14 Project Cost (D&W)	-	33,705	-	1,685	-	35,390
TOTAL	-	33,705	-	1,685	-	35,390
	0%	95%	0%	5%	0%	100%
5.00% FY16 Cost Multiplier	-	35,390	-	1,770	-	37,160
5.00% FY17 Cost Multiplier	-	37,160	-	1,858	-	39,018
5.00% FY18 Cost Multiplier	-	39,018	-	1,951	-	40,969
5.00% FY19 Cost Multiplier	-	40,969	-	2,048	-	43,017
5.00% FY20 Cost Multiplier	-	43,017	-	2,151	-	45,168
5 Years TOTAL PROJECT COST	-	43,017	-	2,151	-	45,168
TOTAL COST (ROUNDED)	-	43,000	-	2,200	-	45,200

Capital Project Request

Project Title: **Pollard Phased Improvements Feasibility Study** Classification: **Building** Status: **New Request** Fiscal Year: **2018**

Purpose: **Long Range Plan/Study**
 Department: **Needham Public Schools**
 Partners: **N/A**

Funding Source: **General Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$65,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility		\$65,000				
Design/Engineering		\$0				
Land/ROW Acquisition		\$0				
Site Preparation		\$0				
Construction		\$0				
Construction Management		\$0				
Equipment		\$0				
Furniture, Fixtures, and Equipment		\$0				
Technology Hardware/Software		\$0				
Other Expenses		\$0				
TOTAL		\$65,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Pollard Phased Improvements Feasibility Study

Fiscal Year:

2018

Project Description and Considerations

This is a project to study the feasibility of phasing the Pollard Improvements project over multiple years, for the purpose of best addressing the needs of that facility in the most timely and economically feasible manner possible.

The Pollard Improvements Project is presented as a separate Capital Improvement Project Request, timed for initial funding in FY 27. This project is based on a 2011 facilities assessment completed by Dore & Whittier Architects, which identified approximately \$17.8 million in needed upgrades to the Pollard School. These were upgrades that could not be undertaken as part of the regular maintenance budget, due to their large scope and/or cost, and included: renovation and enlargement of the science and engineering classrooms, updates to the auditorium and reconfiguration of the administration area. The science classrooms are undersized compared to Massachusetts School Building Authority (MSBA) standards, do not have adequate prep rooms or storage spaces and include casework and plumbing fixtures that are in poor condition. The engineering classroom is a converted space that is not well-suited to delivery of the curriculum. The auditorium needs updating, including sound and lighting upgrades, in order to remain a suitable space for performing arts, guest lectures and assemblies. In addition, the administration space, which is located on the side of the building, is difficult for visitors to locate, doesn't allow school personnel to view visitors as they approach the building and is undersized by MSBA standards. Finally, the modular classrooms, constructed in 2002, are not designed as permanent, long-term facilities. They are constructed of inexpensive materials, in off site production style construction techniques and are not energy efficient. A long-term solution will be required within the next fifteen years. (The expected lifespan for modular classrooms is 20-25 years.)

Given the scope and cost of these upgrades, as well as the need to modernize other school facilities within the next ten year period (Hillside School, Mitchell School, Emery Grover Administration Building), the School Department has requested funding for these improvements beginning in FY27, with an expected completion year in September 2030 (FY31.) The placement of this project so far into the future defers these needed improvements by more than a decade, resulting in significantly increased cost and a lengthy period of unmet need.

The purpose of the feasibility study is to determine whether or not it would be possible to phase the project over multiple years with a goal of possibly accelerating completion of the project and reducing the overall project cost. The study should also look at the cost benefit of completing the science classrooms first to create swing space when the modular classrooms are demolished, examine strategies to maximize potential MSBA reimbursement for this project and, finally, estimate future need, based on long-term enrollment trends. In addition, some ongoing maintenance repair work may have reduced the scope of the overall project, such as the relocation of the administrative offices at Pollard, renovations to bathrooms and auditorium seating improvements.

Parameters Addressed:

Other Departmental Assistance: PPBC Project Management

Capital Project Request

Project Title: **School Copiers** Fiscal Year: **2018**

Purpose: **Long Range Plan/Study** Revised Request from the Prior CIP

Department: **Needham Public Schools** Status: **General Fund**

Partners: **None** Funding Source: **General Fund**

Classification: **Equipment/Furniture**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$370,060**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$370,060	\$46,790	\$80,850	\$54,200	\$99,730
Furniture, Fixtures, and Equipment	\$0			\$88,490	
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$370,060	\$46,790	\$80,850	\$54,200	\$99,730

\$0

Capital Project Request

Project Title: **School Copiers**

Fiscal Year: **2018**

Project Description and Considerations

In May 2003, Town Meeting authorized \$60,000 in first year funding to establish a replacement cycle for school photocopiers. School photocopiers are located in all the schools and the administration building, and are used both by administrative and teaching staff. Teachers use the machines to reproduce classroom materials, including homework sheets, exams, teaching packets, etc. Currently the School Department owns 48 copy machines. The FY18-FY22 request replaces the following numbers of copy machines.

Fiscal Year	# of Copy Machines Replaced
FY17(Requested)	5
FY18(Requested)	5
FY19 (Requested)	6
FY20 (Requested)	7
FY21 (Requested)	5
FY22 (Requested)	7

Copier replacement is planned on a lifecycle analysis, which projects when a copier should be replaced based on actual usage and the manufacturer's total estimated capacity. Copiers, which are heavily used, are replaced more frequently than copiers that are lightly used. A seven-year maximum is assumed for most machines, even if they have not yet reached maximum copy allowances, given the additional operating expense associated with servicing and maintaining older equipment, as well as the difficulty in obtaining replacement parts. This analysis assumes that copiers are re-deployed around the District, as needed, to match copier use with equipment capacity.

This request is revised from the prior CIP to reflect updated life cycle calculations, which have shifted replacement priorities.

Supplemental Information

Building	Location	Make	Model	Purchase Year					FY18	FY19	FY20	FY21	FY22
				Year	FY18	FY19	FY20	FY21					
Administration	SECOND FLOOR	XEROX	5755APT	12/11/12	69%	81%	12%	24%	36%	-	10,850	-	-
Administration	Production Center	Konica	KM1025	9/1/15	63%	84%	105%	127%	148%	-	-	-	45,630
Administration	FIRST FLOOR	Konica	KM 754 e	2/26/14	16%	20%	24%	27%	4%	-	-	11,960	-
Administration	Production Center	XEROX	D125	12/11/12	65%	73%	8%	17%	25%	-	41,060	-	-
Broadmeadow	Teacher Lounge	Konica	KM 654 E	2/26/14	42%	51%	60%	69%	79%	-	-	-	6,980
Broadmeadow	Teachers Room	Konica	KM 654 E	10/15/14	13%	16%	19%	23%	3%	-	-	6,650	-
High School	Main Office	Konica	KM 364E	8/15/15	66%	83%	101%	18%	36%	-	-	6,330	-
Broadmeadow	ETC	XEROX	3550	4/1/12	9%	10%	11%	1%	2%	-	-	2,540	-
High School	Media	XEROX	3550	9/1/12	4%	5%	5%	5%	5%	-	-	-	-
High School	Athletics	Konica	KM 454E	8/23/16	68%	73%	78%	83%	88%	-	-	-	-
High School	Grade Level 301	XEROX	5135PT	11/15/11	16%	19%	21%	3%	5%	-	-	6,330	-
High School	Math/Sci Rm 205	XEROX	5775PT	11/15/11	75%	8%	16%	24%	32%	10,330	-	-	-
High School	World Lang 704	Konica	KM 654 e	2/26/14	42%	52%	62%	72%	81%	-	-	-	-
High School	Health Office 607	XEROX	WC3550 X	12/11/12	3%	4%	4%	5%	5%	-	-	-	-
High School	Janice's Office	XEROX	WC3550 X	12/11/12	19%	21%	24%	27%	30%	-	-	-	-
High School	Music	Konica	KM 654 E	8/23/16	19%	22%	25%	27%	30%	-	-	-	-
High School	PE	XEROX	WC3550 X	12/11/12	25%	30%	34%	38%	43%	-	-	-	-
High School	College 503	Konica	KM 364 e	2/26/14	15%	19%	22%	26%	30%	-	-	-	2,800
High School	Writing Cntr	Konica	KM 454 e	2/26/14	26%	31%	36%	40%	45%	-	-	-	6,980
High School	SPED Rm 801	XEROX	5740APT	12/11/12	82%	97%	15%	30%	45%	6,030	-	-	-
High School	SS/English 703	Konica	KM 754 e	2/25/14	44%	52%	61%	69%	78%	-	-	-	15,180
High School	English	Konica	KM 754 e	9/1/15	23%	28%	34%	39%	44%	-	-	-	-
High School	Wk 305	XEROX	WC5740APT	12/11/12	30%	34%	37%	40%	44%	-	-	-	-
High School	Math/Sci	Konica	KM 754 e	9/1/15	23%	28%	33%	38%	43%	-	-	-	-
Hillside	Main Office	XEROX	5755APT	12/11/12	24%	32%	40%	8%	16%	-	11,390	-	-
Hillside	Downstairs	XEROX	5765PT	11/15/11	37%	41%	5%	9%	14%	-	6,030	-	-
Hillside	Main Office	Konica	KM 754E	2/25/14	68%	84%	99%	115%	15%	-	-	11,960	-
Mitchell	Back Door	Ricoh	MP8001	2008	53%	3%	6%	9%	12%	12,490	-	-	-
Mitchell	5th grade wing	XEROX	5765PT	11/15/11	32%	35%	38%	40%	43%	-	-	-	-
Mitchell	Front Office	Konica	KM654E	10/15/14	38%	48%	58%	68%	78%	-	-	-	6,980
Mitchell	Front Office	XEROX	5775PT	12/11/12	54%	50%	50%	50%	47%	-	-	-	42,770

Capital Project Request

2018

Project Title:	School Copiers	5/1/12	12/11/12	51%	59%	68%	8%	11%	Fiscal Year:
Newman	Front Office	5/1/12	12/11/12	51%	59%	68%	8%	11%	13,770
Newman	Hall Outside Office	KM 654 E	8/23/16	39%	44%	50%	56%	61%	-
Newman	Hallway near caf	5765PT	11/15/11	62%	10%	20%	31%	41%	12,490
Newman	Down Stairs Hall	5755APT	12/11/12	61%	72%	83%	11%	23%	-
Newman	Main Office	3550X	12/11/12	8%	10%	11%	2%	3%	-
Pollard	8th Grade Hallway	KM 654 e	9/1/15	7%	9%	10%	12%	13%	-
Pollard	7th Grade work area	5765PT	11/15/11	39%	6%	11%	17%	22%	5,740
Pollard	Main Office	KM 754E	2/25/14	68%	84%	99%	115%	15%	-
Pollard	Teacher's Lounge	KM 654E	10/15/14	31%	38%	45%	52%	59%	-
Pollard	Main Office	WC5740APT	12/11/12	95%	12%	24%	36%	47%	5,740
Pollard	Media Cart - OP	3550	9/1/12	4%	4%	5%	5%	5%	-
High Rock	Room 207	KM 654E	8/23/16	55%	59%	63%	67%	71%	-
High Rock	Main Office	KM 754E	10/15/14	37%	47%	56%	66%	76%	15,180
Eliot Elementary	Main Office	KM754 E	2/25/14	25%	31%	37%	43%	49%	-
Eliot Elementary	Room 151	5765PT	11/15/11	48%	59%	11%	22%	34%	10,850
Eliot Elementary	Room 210	5135PT	11/15/11	80%	91%	11%	21%	32%	6,030
Kase- Cong. Church	Main Office	IR2230	8/11/05	33%	35%	37%	39%	40%	-
Administration	Color Copier Productit	Xerox	Color 560	51%	62%	74%	85%	11%	43,460
Totals									46,790
									80,850
									54,200
									88,490
									99,730

Capital Project Request

Project Title: **School Department Technology Request**

Fiscal Year: **2018**

Purpose: **Acquisition**
 Department: Needham Public Schools
 Partners: None

Status: **Revised Request from the Prior CIP**
 Funding Source: General Fund

Classification: **Technology**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	Yes
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$2,337,025**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$2,337,025	\$292,000	\$565,500	\$556,325	\$459,700
Other Expenses	\$0				
TOTAL	\$2,337,025	\$292,000	\$565,500	\$556,325	\$459,700

\$0

Capital Project Request

Project Title: School Department Technology Request

Fiscal Year: 2018

Project Description and Considerations

The FY18-22 CIP request is for funding to purchase School Department technology, including computers, printers, IWBs, servers, the schools' laptop carts and specialized instructional labs. It reflects the decision in FY17 to move Digital Learning Devices (DLDs) and staff laptops to the operating budget, as well as the new classroom technology standard. A chart summarizing the five-year request is included on the next page.

The FY18-22 Capital Improvement Plan (CIP) for technology maintains a replacement cycle for District hardware, including desktops, printers, interactive whiteboards and projectors. The five-year plan totals \$2,337,025 and represents the replacement of school technology with a life cycle of five years or more. (In FY17, funding for devices with a lifespan of fewer than five years was shifted to the Operating Budget. These devices included Digital Learning Devices (DLDs) such as iPads and Chromebooks, and laptops.) The restructuring of the District's technology department in FY16 provided staff with the opportunity to institute an improved inventory system, to develop a technology profile for a variety of instructional and administrative spaces, and to more effectively project the quantities and respective costs of the technology remaining in the FY18-22 CIP request.

Of the \$2,337,025 amount, \$1,483,025 is allocated to replacing district hardware, \$513,000 is for infrastructure upgrades and \$341,000 is for new requests.

The \$1,483,025 hardware upgrade request includes the following: \$826,025 for desktop computers, printers, interactive whiteboards and projectors; \$603,000 for computer lab replacement and \$54,000 for NHS science lab replacement. Desktop computers have an assumed life of five years, the replacement cycle for which now includes all of the special education teacher computers, science center computers, nurse computers and preschool computers, which had not been part of the previous capital plan. Whiteboards are replaced after six years, although the industry-recommended replacement cycle is five years. In addition, \$603,000 is requested to replace computer labs around the District, including elementary computer labs and the Technology, Music, TV and Graphics Labs at NHS (at a cost of approximately \$40,500/lab.) Additionally, six of the Science Labs at NHS will be replaced, as well, for a total cost of \$54,000. The remaining science labs will not need to be replaced, given the proliferation of 1:1 technology at NHS.

An additional \$513,000 will be allocated to infrastructure upgrades, including servers, network hardware and cabling. The plan now incorporates \$242,000 for wireless access datapoints, which had not been part of prior capital requests.

Finally, \$341,000 is requested for the following new items:

- * \$40,000 to replace security camera systems at High Rock (FY18) and NHS (FY22), which had been maintained by Public Facilities in the past.
- * \$181,000 to replace/install audio visual projection systems in school auditoriums and gymnasiums.
- * \$120,000 to replace the NHS TV Studio, in a phased project between FY19-22.

The FY18 request is for \$463,500 and represents a \$155,575 increase over the FY18 projection included in the FY17-21 CIP. The \$463,500 request increase consists of \$310,500 in hardware replacement, \$61,000 in infrastructure improvements and \$92,000 in new requests. The hardware replacement budget of \$310,500 increases \$84,575 from the prior year and reflects the reallocation of funds away from whiteboard and desktop computer replacement to the replacement of computer labs at Broadmeadow, Eliot, Hillside and High Rock (for \$40,500/each), as well as replacement of the TV Lab at Needham High School (\$36,000). The infrastructure budget of \$61,000 increases \$10,000 over the prior CIP to fund wireless access points, which were added as a new category under technology infrastructure. Finally, several new requests totaling \$92,000 are made for FY18: the replacement of the High Rock security camera system and keyless entry system (\$20,000), the installation of gymnasium video displays at two schools (Eliot and Hillside for \$6,000), the replacement of the 30-year old mobile PA system for use at graduation (\$30,000), the installation of an auditorium screen and a projection system at High Rock (\$25,000), a replacement screen at Pollard (\$6,000) and a projector and screen in the Pollard cafeteria (\$5,000.)

Capital Project Request

Project Title: **School Department Technology Request**

Fiscal Year: **2018**

Supplemental Information

FY18-22 School Technology Request Summary									
	FY 18	FY 19	FY 20	FY 21	FY 22	5-Yr Total			
DRAFT									
Replacement Costs									
Hardware									
Broadmeadow	\$42,000	\$15,000	\$15,000	\$15,000	\$15,000	\$61,500			
Eliot	\$42,000	\$15,000	\$15,000	\$15,000	\$15,000	\$61,500			
Hillside	\$42,000	\$15,000	\$15,000	\$15,000	\$15,000	\$61,500			
Mitchell	\$1,500	\$3,000	\$3,000	\$3,000	\$3,000	\$6,500			
Newman	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$6,500			
High Rock	\$43,500	\$43,500	\$43,500	\$43,500	\$43,500	\$172,500			
Pollard	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$12,000			
NHS	\$40,500	\$4,500	\$69,000	\$211,500	\$126,000	\$451,500			
Emergy Grover	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$15,000			
Printers	\$0	\$0	\$22,000	\$22,825	\$42,700	\$87,525			
IWB & Proj.	\$90,000	\$80,000	\$80,000	\$80,000	\$110,000	\$440,000			
Hardware Totals	\$310,500	\$143,000	\$319,500	\$413,325	\$296,700	\$1,483,025			
Infrastructure									
Servers	\$21,000	\$30,000	\$30,000	\$30,000	\$30,000	\$141,000			
Network Hardware	\$25,000	\$20,000	\$20,000	\$20,000	\$20,000	\$105,000			
Wireless Infra. Data Cabling	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000			
Wireless Infra. Access Points	\$10,000	\$58,000	\$58,000	\$58,000	\$58,000	\$242,000			
Infrastructure Total	\$61,000	\$113,000	\$113,000	\$113,000	\$113,000	\$513,000			
Total	\$371,500	\$256,000	\$432,500	\$526,325	\$409,700	\$1,996,025			
IWB Costs									
Bmeadow	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000			
Eliot	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000			
Hillside	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0			
Mitchell	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000			
Newman	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000			
High Rock	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$60,000			
Pollard	\$25,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$25,000.00	\$95,000			
NHS	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$25,000.00	\$85,000			
IWB Total	\$90,000.00	\$80,000.00	\$80,000.00	\$80,000.00	\$110,000.00	\$440,000			
New Capital requests									
Security Cameras / Key Entry	\$20,000.00	\$0.00	\$0.00	\$0.00	\$20,000.00	\$40,000.00			
AV Gym Video Displays	\$6,000.00	\$6,000.00	\$6,000.00	\$6,000.00	\$0.00	\$18,000.00			
AV Mobile PA System	\$30,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30,000.00			
AV Projection and Screens Auditorium / Cafeteria	\$36,000.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$43,000.00			
AV IWB K	\$0.00	\$0.00	\$90,000.00	\$0.00	\$0.00	\$90,000.00			
AV Video Audit. Auditorium / Cafeteria / Rooms	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			

Capital Project Request

Project Title: School Department Technology Request

Audio Visual Auditorium / Cafeteria / Gyms

NHS TV Studio

New Capital Total

2018

Fiscal Year:

\$72,000.00	\$6,000.00	\$103,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
\$0.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00
\$92,000.00	\$36,000.00	\$133,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00

Grand Totals

Vs. Planned Funding / Technology Replacement

Required Additional Funding

\$463,500.00	\$292,000.00	\$565,500.00	\$556,325.00	\$459,700.00	\$2,337,025.00
\$307,925.00	\$282,500.00	\$347,500.00	\$177,050.00	N/A	\$1,114,975.00
\$155,575.00	\$9,500.00	\$218,000.00	\$379,275.00	N/A	\$1,222,050.00

Capital Project Request

Project Title: **School Furniture** Fiscal Year: **2018**

Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Revised Request from the Prior CIP**

Department: **Needham Public Schools** Funding Source: **General Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$184,806**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$184,806	\$44,806	\$25,000	\$45,000	\$25,000
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$184,806	\$44,806	\$25,000	\$45,000	\$25,000

\$0

Capital Project Request

Project Title: **School Furniture**

Fiscal Year: **2018**

Project Description and Considerations

This request continues the replacement cycle for school furniture in poor and fair condition at the Newman and Pollard schools. In these schools, furniture is 10-20+ years old and in a state of disrepair after decades of heavy use.

In FY05, Town Meeting approved funding of \$20,500 to begin the replacement of furniture in poor condition. By FY15, all furniture in 'poor' condition will have been replaced at these schools. The FY18-FY21 funding request will continue with the replacement of furniture in fair condition at these schools and will allow for the purchase of furniture needed for enrollment growth. In addition, these funds would be used for new classroom furniture as needed. Starting in FY22, the furniture request will be used exclusively to purchase new classroom furniture as necessary in all school buildings.

This request is revised from the prior year to add an FY22 funding request.

The anticipated replacement schedule is depicted below:

FY18-FY22 Funding Plan

<u>Funding Plan</u>	<u>Request</u> <u>FY18</u>	<u>Request</u> <u>FY19</u>	<u>Request</u> <u>FY20</u>	<u>Request</u> <u>FY21</u>	<u>Request</u> <u>FY22</u>	<u>TOTAL</u>
Hillside	-	-	-	-	-	-
Mitchell	15,873	19,806	10,000	25,000	-	70,679
Newman	19,127	10,000	-	-	-	29,127
Pollard	10,000	15,000	15,000	20,000	25,000	85,000
New Classrooms	45,000	44,806	25,000	45,000	25,000	184,806

Capital Project Request

Project Title: **School Document Management System**

Fiscal Year: **2019**

Purpose: **Acquisition**
Department: Needham Public Schools
Partners: N/A

Status: **Revised Request from the Prior CIP**
Funding Source: General Fund

Classification: **Technology**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$178,800**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$36,100				
Technology Hardware/Software	\$70,300	\$72,400			
Other Expenses	\$142,700				
TOTAL	\$178,800	\$106,400	\$72,400	\$0	\$0

\$0

Capital Project Request

Project Title: School Document Management System

Fiscal Year: 2019

Project Description and Considerations

This is a request to purchase and implement a document management system for the efficient storage and retrieval of school documents, including student files, financial and administrative information. The acquisition cost also includes the cost to convert existing paper-based records to electronic format.

The document management system provides electronic storage and retrieval, automated document indexing and networked access for group workflow and email capability. The acquisition cost is based on a 2015 purchase estimate of \$32,000 and \$125,000 cost of document conversion, escalated at a cost of 3%/year. The document conversion cost is based on approximately 856 cubic feet of documents (Human Resources, Special Education) and is phased over two years.

Project timing based on planned renovation/reconstruction of Emery Grover School Administration Building in FY21-22, and is timed to precede the relocation of staff to swing space in FY21 during construction. The project is revised to accelerate the timing by one year in order to address document management before Administration moves to swing space.

Supplemental Information

Document Management Purchase & Document Conversion Expense

Emergy Grover Active Files	# Cabinets Small (1)	# Cabinets Large (2)	Cubic Feet	Calculated # Boxes	Calculated Pages	Box Pickup Service (3)	Scanning Service	Total Cost
Human Resources	3	9	312	260	689,000	650	44,785	45,435
Financial Operations	0	0	-	-	-	-	-	-
Payroll	0	0	-	-	-	-	-	-
Food Service	0	0	-	-	-	-	-	-
Special Education	24	11	544	453	1,201,333	1,133	78,087	79,220
Subtotal	27	20	856	713	1,890,333	1,783	122,872	124,655
<u>Other Files</u>								
Financial Operations	0	0	-	-	-	-	-	-
Subtotal	0	0	-	-	-	-	-	-
Grand total	27	20	856	713	1,890,333	1,783	122,872	124,655

(1) Small: 1'W x 4'H x 2'D
 (2) Small: 4'W x 4'H x 2'D
 (3) Pickup estimate is \$2.50/box
 (3) Estimated cost of prepping, scanning, indexing is \$0.05 - \$0.08/page. Estimate based on \$0.065/page mid-rate.

Conversion
 1 Small Bankers Box = 1.2 Cubic Feet
 1 Small Bankers Box = 2650 Pages

Document Management Purchase & Installation

2015 Acquisition Cost	FY16	Doc Star	Software Acquisition	Phased Conversion	Phased Conversion
x Escalation	FY17	3%	32,000	62,500	62,500
x Escalation	FY18	3%	33,000	64,400	64,400
x Escalation	FY19	3%	34,000	66,300	66,300
x Escalation	FY20	3%	35,000	68,300	68,300
x Escalation	FY21	3%	36,100	70,300	70,300
				72,400	Prior to EG Renovation

Capital Project Request

Project Title: **Full Day Kindergarten Space Modifications**

Fiscal Year: **2020**

Purpose: **Construction**
Department: Needham Public Schools
Partners: N/A

Status: **Revised Request from the Prior CIP**
Funding Source: General Fund

Classification: **Building**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$50,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$20,000				
Technology Hardware/Software	\$0				
Other Expenses	\$30,000				
TOTAL	\$50,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Full Day Kindergarten Space Modifications**

Fiscal Year: **2020**

Project Description and Considerations

The School Committee has prioritized the implementation of Full-Day Kindergarten (FDK) in Needham. Based on a preliminary analysis completed in June 2015 (and updated in December 2015), up to five additional classrooms may be needed in the year of initial implementation, to accommodate the projected population of Kindergarteners at an average class size of 20 students. These classrooms could be provided by re-purposing non-traditional space at each elementary school, such as art/music/world language/technology classrooms, or by re-using available space at either the Pollard Middle School modulars or the existing Hillside School. Based on the accelerated schedule for completing construction of the new Hillside School at Central Avenue, the existing Hillside will become vacant in September 2019, when the new school is completed.

The School Department has requested funding (through a separate capital request) for a space planning study that would identify the exact spaces needed for Full Day Kindergarten, and plan for any retrofits required to these spaces. This request is a companion to that study and provides a placeholder for the funding needed to implement the needed space modifications. The project includes a placeholder estimate of \$30,000 for repairs, to be expended as needed, plus \$20,000 to purchase placeholder Kindergarten furniture and play equipment. (The budgeted cost of furniture is \$5,000 per classroom.) Curriculum materials would be provided through the operating budget.

This project is revised from the prior CIP in order to time it with the scheduled opening of the Hillside School, the earliest date for which is September 2019, based on an accelerated project schedule. (Previously the funding year of this request was FY18.) In addition, the request has been renamed from its previous title of "Update Pollard Modulars for Full-Day Kindergarten," to recognize the other possible spaces that may be used for Full Day Kindergarten.

Parameters Addressed:

Project Costs Not Included: Operational cost of Full-Day Kindergarten implementation
Other Departmental Assistance: PPBC or Public Facilities Project Management, Depending on Scope

Capital Project Request

Project Title: **Renovate/Reconstruct Emery Grover Building at Highland Avenue Location** Fiscal Year: **2020**

Purpose: **Construction** Classification: **Building** Status: **Same Request from the Prior CIP**

Department: **Needham Public Schools** Funding Source: **Community Preservation Fund**

Partners: **N/A**

Parameters	2020	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?		Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?		No
3. Does the project support activities to produce new revenue for the Town?		No
4. Does this project require any permitting by any Town or State agency?		Yes
5. If funded, will additional permanent staff be required?		No
6. If funded, will the operating budget need to be increased to cover operating expenses?		Yes
7. If funded, will this project increase the operating expense for any other department?		Yes
8. If funded, will this project lower the requesting Department's operating costs?		No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?		No
10. If the project is NOT funded, will current Town revenue be reduced?		No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?		No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?		No
13. Is this a request in response to a Court, Federal, or State order?		No
14. Is this a request in response to a documented public health or safety condition?		No
15. Is this a request to improve or make repairs to extend the useful life of a building?		No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?		No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?		No
18. Will any other department be required to provide assistance in order to complete the project?		Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **May increase annual operating expenses between \$50,001 and \$100,000**

Total New FTE's: **0**

Estimated Project Cost: **\$14,724,500**

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility		\$0				
Design/Engineering		\$1,494,100				
Land/ROW Acquisition		\$0				
Site Preparation		\$0				
Construction		\$11,156,600		\$11,156,600		
Construction Management		\$111,100		\$111,100		
Equipment		\$0				
Furniture, Fixtures, and Equipment		\$611,800		\$611,800		
Technology Hardware/Software		\$0				
Other Expenses		\$1,320,900		\$1,320,900		
TOTAL		\$14,694,500	\$1,605,200	\$13,089,300	\$0	\$0
\$30,000						

Capital Project Request

Project Title: Renovate/Reconstruct Emery Grover Building at Highland Avenue Location

Fiscal Year: 2020

Project Description and Considerations

The 2005 Facilities Master Plan indicated that the Emery Grover School Administration Building is in need of additional office and storage space, as well as extensive repair and modernization. The needed scope of renovation includes reorganizing office and meeting spaces, making the building fully ADA accessible, removing remaining asbestos and lead paint, and replacing deteriorating systems, including: windows, HVAC, electrical and plumbing. These renovations would allow for a more efficient use of space, as well as full utilization of all four floors and full handicapped accessibility.

A feasibility study was conducted in August 2013 by DesignLAB Architects, which identified several options for the building, including: renovation of the existing building, the purchase/renovation of commercial property, and new construction on an alternate Town-owned parcel. This request is for the renovation of the existing Emery Grover building at its present location. Based on a preliminary budget developed by DesignLAB, the \$9.7 million total cost (2013 \$) could be reduced by Community Preservation Act funding of approximately 67% of construction and related soft costs. The budget includes funds to temporarily re-locate staff to swing space during construction.

Preliminary Project Schedule:

Feasibility Study: FY14 (\$30,000)
Design: FY20 (May '19 ATM)
Project Funding Year: FY21
Emery Grover Occupies Swing Space: FY21-FY22
Construction: FY21-FY22
New Building Opens: 9/2022 (FY23)

Project Budget:

The above referenced project budget excludes \$30,000 approved at May 2013 Annual Town Meeting for feasibility design. The "Other Expenses" category includes \$1,267,740 to occupy leased swing space for one year, while the building is being renovated, including moving expense, plus \$53,200 in legal expense. If, alternatively, the modernized Hillside School is used as swing space, the project budget could be reduced by the lease expense. (The project to modernize Hillside for use as swing space is presented separately.) All costs include 8 years of escalation to the mid-point of construction, using 6%/year (FY14-FY16) and 5.0%/year thereafter.

This project is revised from the previous request to reflect a 5% cost escalator for fiscal years starting FY17, based on advice from the PPBC. It is likely that the final design budget will need to include 2% construction management expense (compared to 1%), but that adjustment is not reflected above, in order to preserve the integrity of the source information.

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.
Permitting: As required by Town Boards.
Operating Budget Increase: Improvements to HVAC, electrical system may increase building maintenance expense by more than \$100,000/year. This placeholder estimate to be revised during design process.
Other Departmental Assistance: PPBC Project Management

Capital Project Request
Renovate/Reconstruct Emery Grover Building at Highland Avenue Location
Supplemental Information

Fiscal Year: **2020**

Project Title:

Emery Grover Renovation Cost Estimated, Based on 2013 DesignLab Study

	Feasibility	Construction	A/E	Constr Mgmt	Temporary	FF&E	Other	Total	Cost/SF	Less CPA	Net Cost
FY13 Project Cost (DesignLab)	30,000	7,339,550	982,906	73,120	834,000	402,500	35,000	9,697,076		8,350,000	1,347,076
TOTAL	30,000	7,339,550	982,906	73,120	834,000	402,500	35,000	9,697,076	\$457	8,350,000	1,347,076
	0%	76%	10%	1%	9%	4%	0%	100%			
FY14 Cost Multiplier @ 6%	30,000	7,779,923	1,041,880	77,507	884,040	426,650	37,100	10,277,101	\$484	8,350,000	1,927,101
FY15 Cost Multiplier @ 6%	30,000	8,246,718	1,104,393	82,158	937,082	452,249	39,326	10,891,927	\$513	8,350,000	2,541,927
FY16 Cost Multiplier @ 6%	30,000	8,741,521	1,170,657	87,087	993,307	479,384	41,686	11,543,642	\$544	8,350,000	3,193,642
FY17 Cost Multiplier @ 5%	30,000	9,178,598	1,229,190	91,441	1,042,973	503,353	43,770	12,119,324	\$571	8,350,000	3,769,324
FY18 Cost Multiplier @ 5%	30,000	9,637,527	1,290,649	96,014	1,095,121	528,521	45,958	12,723,791	\$599	8,350,000	4,373,791
FY19 Cost Multiplier @ 5%	30,000	10,119,404	1,355,182	100,814	1,149,877	554,947	48,256	13,358,480	\$629	8,350,000	5,008,480
FY20 Cost Multiplier @ 5%	30,000	10,625,374	1,422,941	105,855	1,207,371	582,694	50,669	14,024,904	\$660	8,350,000	5,674,904
FY21 Cost Multiplier @ 5%	30,000	11,156,643	1,494,088	111,148	1,267,740	611,829	53,203	14,724,649	\$693	8,350,000	6,374,649
TOTAL PROJECT COST	30,000	11,156,643	1,494,088	111,148	1,267,740	611,829	53,203	14,724,649	\$693	8,350,000	6,374,649
TOTAL COST (ROUNDED)	30,000	11,156,600	1,494,100	111,100	1,267,700	611,800	53,200	14,724,500	\$693	8,350,000	6,374,500

Square Footage

21,235

Note - costs escalated at rates shown above, to midpoint of construction (FY21). There are 2 construction years, FY21 and FY22. EG opens FY23 (July 2022). FY14 is feasibility funding year; FY20 is SD/DD. CPA Funding is assumed at 67%.

Project Funding Schedule	FY14	FY20	FY21	Total
Pre-Design	30,000			30,000
Engineering & Design		1,494,100		1,494,100
Construction		111,100	13,089,300	13,200,400
Total	30,000	1,605,200	13,089,300	14,724,500

Capital Project Request

Project Title: **Sustain the Hillside School as Swing Space for Future Town Use** Fiscal Year: **2021**

Status: Revised Request from the Prior CIP

Funding Source: General Fund

Classification: Building

Purpose: Construction

Department: Needham Public Schools

Partners: N/A

Parameters	2021	2022	2023	2024	2025
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?					Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?					No
3. Does the project support activities to produce new revenue for the Town?					No
4. Does this project require any permitting by any Town or State agency?					Yes
5. If funded, will additional permanent staff be required?					No
6. If funded, will the operating budget need to be increased to cover operating expenses?					Yes
7. If funded, will this project increase the operating expense for any other department?					Yes
8. If funded, will this project lower the requesting Department's operating costs?					No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?					No
10. If the project is NOT funded, will current Town revenue be reduced?					No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?					No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?					No
13. Is this a request in response to a Court, Federal, or State order?					No
14. Is this a request in response to a documented public health or safety condition?					No
15. Is this a request to improve or make repairs to extend the useful life of a building?					Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?					No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?					No
18. Will any other department be required to provide assistance in order to complete the project?					Yes

Primary Reason for the Request: New function or service

How was the Estimated Project Cost Determined: Hired Consultant

Useful Life: Between twelve (12) and eighteen (18) years

Budget Impact: May increase annual operating expenses between \$50,001 and \$100,000

Total New FTE's: 0

Estimated Project Cost: \$18,960,500

Project Budget Elements	Project Budget	2021	2022	2023	2024	2025
Planning/Feasibility		\$100,000				
Design/Engineering		\$2,607,400	\$2,607,400			
Land/ROW Acquisition		\$0	\$0			
Site Preparation		\$0	\$0			
Construction		\$13,969,600		\$13,969,600		
Construction Management		\$651,900		\$651,900		
Equipment		\$0				
Furniture, Fixtures, and Equipment		\$1,631,600		\$1,631,600		
Technology Hardware/Software		\$0				
Other Expenses		\$0				
TOTAL		\$18,960,500	\$2,607,400	\$16,253,100	\$0	\$0

\$0

Capital Project Request

Project Title: Sustain the Hillside School as Swing Space for Future Town Use

Fiscal Year: **2021**

Project Description and Considerations

Constructed in 1960, the Hillside Elementary School has undergone both addition and renovation (with modulars) over the past 40 years, but is in need of total replacement to address building deficiencies and modernize the learning environment. Several options for renovating/reconstructing this facility are presented in this Capital Improvement Program request.

This is a project to modernize the existing Hillside School for use as swing space for other school and Town projects, after the new Hillside school opens in September 2020 (FY21.) A potential schedule for use of this swing space is: Emery Grover Renovation (FY21-FY22 - prior to modernizing the building), Mitchell Renovation (FY27-FY28), Pollard Renovation (FY29-FY30.) This schedule assumes that modernization will take up to two years to complete, and that relocating the Emery Grover population to the Hillside school is preferable to leasing office space for use during that construction project.

This cost and scope of this project is based on the "Option A" 'base repair project estimate developed by Dore & Whittier Architects in 2014 and renovates the existing Hillside School to update all major building systems to comply with current codes and reutilizations. (It is the renovation option best described as the 'base repair' scenario for comparative purposes.) The scope of this option does NOT include adding modular classrooms to accommodate the Mitchell School population or a full grade of Pollard students. The Feasibility Study scope should update the above preliminary cost estimate to include the needed modular component, as well as a comparative analysis of the relative cost effectiveness of an alternate project to demolish the school and create modular swing space on this site.

This project is revised from prior years to reflect a July 2024 completion date and a 5% inflation escalator for fiscal years beginning FY17.

Preliminary Project Schedule:

Feasibility Design: FY21

Design: FY22

Override Ballot Question: FY22

Site Construction: FY23-FY24

Modernized Hillside Opens: July, 2024

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

Operating Budget Increase: Improvements to HVAC, electrical system may increase building maintenance expense by more than \$100,000/year, depending upon the scope of renovations required. This placeholder estimate to be revised during design process.

Extend Useful Life: See Project narrative above.

Other Departmental Assistance: PPBC Project Management

Capital Project Request

Project Title: **Sustain the Hillside School as Swing Space for Future Town Use**

Supplemental Information

**Hillside School Modernization, Based on 2014 Dore & Whittier PreFeasibility Study
Option A, Repair Hillside School for 430 Students
Scheduled opening: July 2024 (FY25)**

	Feasibility	Construction *	A/E	FF&E	Constr Mgmt	Total	Cost/SF
45,005 SF Building							
FY14 Project Cost (D&W)	-	8,835,814	1,649,200	1,032,000	412,300	11,929,314	
TOTAL	0%	8,835,814	1,649,200	1,032,000	412,300	11,929,314	\$265
		74%	14%	9%	3%	100%	
FY15 Cost Multiplier @ 6%	-	9,365,963	1,748,152	1,093,920	437,038	12,645,073	\$281
FY16 Cost Multiplier @ 6%	-	9,927,921	1,853,041	1,159,555	463,260	13,403,777	\$298
FY17 Cost Multiplier @ 3.8%	-	10,424,317	1,945,693	1,217,533	486,423	14,073,966	\$313
FY18 Cost Multiplier @ 3.8%	-	10,945,532	2,042,978	1,278,410	510,744	14,777,664	\$328
FY19 Cost Multiplier @ 3.8%	-	11,492,809	2,145,127	1,342,330	536,282	15,516,548	\$345
FY20 Cost Multiplier @ 3.8%	-	12,067,450	2,252,383	1,409,447	563,096	16,292,375	\$362
FY21 Cost Multiplier @ 3.8%	100,000	12,670,822	2,365,002	1,479,919	591,251	17,206,994	\$382
FY22 Cost Multiplier @ 3.8%	100,000	13,304,363	2,483,252	1,553,915	620,813	18,062,343	\$401
FY23 Cost Multiplier @ 3.8%	100,000	13,969,581	2,607,415	1,631,611	651,854	18,960,461	\$421
9 Years	100,000	13,969,581	2,607,415	1,631,611	651,854	18,960,461	\$421
TOTAL PROJECT COST	100,000	13,969,581	2,607,415	1,631,600	651,900	18,960,500	\$421
TOTAL COST (ROUNDED)	100,000	13,969,600	2,607,400				

* Excludes modular temporary classrooms

Square Footage 45,005

Note - costs escalated at rates shown above, to midpoint of construction (FY23). There are 2 construction years, FY23 and FY24. Modernized Hillside opens July 2024 (FY25.) Mitchell moves to swing space FY23. FY21 is feasibility funding year; FY22 is schematic design & full funding year;

	FY24	FY25	FY26
Feasibility	100,000		
Arch/Engineering		2,607,400	
Construction	100,000	16,253,100	100,000
		16,253,100	2,607,400
		18,960,500	18,960,500

Capital Project Request

Project Title: **Energy Efficiency Upgrades** Classification: **Building** Fiscal Year: **2018**

Purpose: **Construction** Status: **Revised Request from the Prior CIP**
 Department: **Public Facilities** Funding Source: **General Fund**
 Partners: **Building Occupants**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	Yes
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$230,000**
 Useful Life: **Between twelve (12) and eighteen (18) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's:

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$170,000		\$5,000	\$100,000	
Land/ROW Acquisition	\$0	\$8,000			
Site Preparation	\$0				
Construction	\$60,000	\$7,000	\$53,000		
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$230,000	\$15,000	\$58,000	\$100,000	\$0

Capital Project Request

Project Title: Energy Efficiency Upgrades

Fiscal Year: 2018

Project Description and Considerations

The 2011 May Special Town Meeting approved Article 6 to fund an Engineering Study for Energy Upgrades. This study was conducted on 10 key buildings in August and September of 2011 and the results were issued in October of 2011. The results of this study illustrate that if the Town makes an initial investment in selected and recommended energy upgrades, the cost of these upgrades will pay for themselves within 10 years.

Recent Projects Include:

In 2016 the department completed numerous energy efficient lighting upgrades, including: Broadmeadow School exterior lighting and gym lighting, High Rock School exterior lighting, Needham High School exterior lighting, Eliot School gym lighting, Needham Library exterior lighting, Pollard School gym lighting, and PSAB exterior lighting.

The department was able to do additional energy efficiency upgrades for the Eliot School cafe and auditorium lighting, the High School B gym lighting, the Hillside School gym lighting, and the Pollard School auditorium lighting.

In FY2017, the department will complete energy efficient lighting upgrades at the Mitchell School gym and the DPW garage. The initial plan had been to perform re-commissioning on the HVAC controls at the Eliot School but due to conflicts over the summer, the work was postponed one year. The funds were used to complete the work above.

In FY2018, the department intends to install on-demand ventilation on air handlers in the mechanical room, and re-commission building HVAC controls at the Eliot School.

In FY2019, the department intends to re-commission the HVAC controls at Needham High School and install bi-lighting systems in the hallways at the High Rock School.

In FY2020, the department intends to replace the existing air conditioners with efficient units and install a tandem lighting system in the hallway at the Pollard School.

In FY2021, the department intends to do an additional energy efficiency study. The original study was only focused on 10 buildings that had some age. This study will focus on buildings that were not addressed in the original study, including Town Hall, PSAB, Newman, Center at the Heights, in addition to the original buildings that will not be undergoing renovation shortly. The improvement in technologies necessitates that this study be conducted approximately every 10 years.

The original study included Fire Station #2 and the Public Safety Building. While the Town has done some of the energy efficiency upgrades, additional upgrades are on hold pending a renovation of these buildings.

- 4. Building, electrical, and plumbing permits will be required.
- 8. Energy efficiency upgrades will reduce energy costs, but which is no longer included in PFD's budget.
- 15. This request will modernize building components.
- 16. Building components will be permanently installed.

Capital Project Request

Fiscal Year: **2018**

Project Title: **Pollard Bathrooms**

Purpose: **Construction** Classification: **Building** Status: New Request
 Department: Public Facilities Funding Source: General Fund
 Partners: School Department

Parameters	2018	2019	2020	2021	2022
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				No
3. Does the project support activities to produce new revenue for the Town?	No				No
4. Does this project require any permitting by any Town or State agency?	Yes				Yes
5. If funded, will additional permanent staff be required?	No				No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				No
7. If funded, will this project increase the operating expense for any other department?	No				No
8. If funded, will this project lower the requesting Department's operating costs?	No				No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				No
10. If the project is NOT funded, will current Town revenue be reduced?	No				No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				No
13. Is this a request in response to a Court, Federal, or State order?	No				No
14. Is this a request in response to a documented public health or safety condition?	No				No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes				Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes				Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				No
18. Will any other department be required to provide assistance in order to complete the project?	No				No

Primary Reason for the Request: **Scheduled replacement**
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$650,000**
 Useful Life: **Between eighteen (18) and twenty-five (25) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$50,000	\$50,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$600,000	\$600,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$650,000	\$650,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Pollard Bathrooms**

Fiscal Year: **2018**

Project Description and Considerations

The Public Facilities Department engaged a consultant in FY 16 to design bathrooms at the Pollard School. There are four sets of boy and girl bathrooms at the school that are need of a renovation. The Town constructed the first of the four bathrooms in FY17. This request is to complete the work started on the first set of bathrooms in the remaining bathrooms. The improvements that were made include new fixtures, new tiles, new layout and open doors, new ADA compliant stalls, and other features to modernize the bathroom facilities. These renovations have been well received by the building occupants.

It is intended that the remaining bathrooms will be renovated in one or two summers, depending on what is achievable in one year. They will be combined together to achieve the greatest efficiency and savings.

4. This work will require a building permit.

15. This request will modernize building components, thereby maximizing the usefulness of the building. This will also bring the bathrooms up to code and ADA/MAAB compliance

16. Fixtures will be permanently installed.

Capital Project Request

Project Title: **Pollard Blue and Green Gym Upgrades** Fiscal Year: **2018**

Purpose: **Construction/Renovation**
 Department: Public Facilities
 Partners: Needham Public Schools

Classification: **Building**

Status: **Revised Request from the Prior CIP**
 Funding Source: General Fund

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$829,610**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$45,000	\$45,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$784,610		\$754,610	\$30,000		
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$829,610	\$45,000	\$754,610	\$30,000	\$0	\$0

Capital Project Request

Project Title: **Pollard Blue and Green Gym Upgrades**

Fiscal Year:

2018

Project Description and Considerations

The Pollard Gym was identified in the Feasibility Study conducted in 2011 as in need of upgrades and has additionally been identified by the Director of Athletics as in need of improvement. These improvements consist of replacing the present rubber flooring with another material that is specifically ideal for basketball use, upgrading lighting, and installing mats along the side of the gym for safety. Lighting upgrades were completed under the energy efficiency request in FY 2016.

In FY 2018 this project would design the replacement of the flooring in both the Blue and Green Gyms. The present rubber flooring is not ideal for basketball use and this building is used frequently by both School and Community basketball groups because of its size. The design will investigate handicap accessibility issues, play safety, and basketball use and will determine the best type of flooring to install given restriction in these spaces. This may include replacing with rubber flooring.

In FY 2019 work will be done to improve the functionality and safety of both gyms. This will be the construction phase of replacing the flooring. The type of flooring will depend on the results from the design phase. Additionally, in the Blue Gym, the siding would be removed and replaced. The Blue Gym will also be painted to brighten the room. Backboards and winch mechanisms on the basketball hoops would be replaced and winch mechanisms would be installed on hoops that do not have winches currently. Padding would also be installed behind all backboards. In the Green Gym, two sections of pull out seating approximately 15x15 each would be installed in order to accommodate classes.

In FY 2020 the scoreboards in both gyms will be removed and replaced, and shot clocks will be installed in the Green Gym. The basketball scoreboard and shot clocks in both gyms are beyond their useful life and the technology is outdated. The current system is based on incandescent bulb technology which is not energy efficient. The replacement will include an electronic LED scoreboard and one set of shot clocks with wireless controls and technology in each gym

4. Building & electrical permits will be required.

15. This request will modernize building components, thereby maximizing the usefulness of the building.

16. Flooring, lockers, and wall coverings will be permanently installed.

Capital Project Request

Project Title: **DPW Boiler Replacement – 470 Dedham Ave**

Fiscal Year: **2019**

Purpose: **Construction/Renovation**

Status: **Informational Only Details Incomplete**

Department: **Public Facilities**

Funding Source: **General Fund**

Partners: **DPW**

Classification: **Building**

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	Yes				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	Yes				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$400,000**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$34,000	\$34,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$366,000	\$366,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$400,000	\$400,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: DPW Boiler Replacement – 470 Dedham Ave

Fiscal Year: 2019

Project Description and Considerations

The request to replace the DPW boiler with two (2) high efficiency condensing boilers is based on both the need for redundancy in the heating season and the desire to improve energy efficiency. The boiler at the DPW was installed in 1961 and is past its useful life. This piece of equipment has required a number of repairs in order to maintain it in working order. Significant repairs were necessary in FY 2010 and FY 2012 at costs of \$60,000 and \$25,000 respectively; \$4,180 was spent on repairs in FY 2015. A new boiler will improve the energy efficiency of heating the DPW, and installing two units will ensure that if one unit needs repair during the heating season the building will have sufficient heat to prevent the pipes from freezing.

The new boiler will be designed for natural gas and will increase the energy efficiency of the heating systems at the DPW. This project may be eligible for energy efficiency rebates to offset the cost of buying a more efficient model.

There is an estimated 15-20% energy cost savings based on savings realized at the Pollard & Newman schools, which underwent similar boiler upgrades.

4. Plumbing and electrical permits will be required.

8. Upgrading to an energy efficient boiler will reduce heating costs, but those are no longer under PFD's budget.

15. The existing boiler at 470 Dedham Ave is outdated, inefficient, and requires frequent repair. This upgrade will ensure that the building is appropriately heated.

16. Public Facilities is in support of this request.

Capital Project Request

Project Title: **Emery Grover Partial Window Replacement**

Fiscal Year: **2019**

Purpose: **Construction/Renovation**

Status: **Informational Only Details Incomplete**

Department: Public Facilities

Funding Source: Community Preservation Fund

Partners: Needham Public Schools, Community Preservation Committee

Classification: **Building**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	Yes
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$309,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$309,000	\$309,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$309,000	\$309,000	\$0	\$0	\$0

Capital Project Request

Project Title: **Emery Grover Partial Window Replacement**

Fiscal Year: **2019**

Project Description and Considerations

This request is to replace the eight arched windows on the front of the Emery Grover Building. A prominent feature of the building, the existing windows are beyond their expected life span. They are inefficient resulting in occupant discomfort and needless energy usage for heating and cooling. Replacing these windows will increase the energy efficiency of this building. The anticipated lifespan of the replacement windows is 50 years.

This project may be eligible for CPA funds.

4. Building permits will be required.

8. Energy efficiency upgrades will reduce energy costs, which are no longer handled by PFD.

12. This project may be eligible for CPA funding.

15. This request is necessary to extend the life of the building.

16. Windows will be permanently installed.

Capital Project Request

Project Title: **Facility Assessment for Sustainable Building Management** Fiscal Year: **2019**

Purpose: **Long Range Plan/Study** Classification: **Building** Revised Request from the Prior CIP

Department: Public Facilities

Partners: Needham Public Schools

Status: **General Fund**
 Funding Source: **General Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$85,165**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$85,165	\$85,165				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$85,165	\$85,165	\$0	\$0	\$0	\$0

Capital Project Request

Project Title: Facility Assessment for Sustainable Building Management

Fiscal Year: 2019

Project Description and Considerations

This is a request for the assessments of public buildings throughout the Town and School Department in order to fully determine the condition of the facility and to identify repair and replacement needs and costs. We will use the results of the facility assessments to dictate future projects for Facilities Maintenance Articles.

In FY 19 the department requests that a facility assessment be done on the Broadmeadow and Eliot Elementary Schools. Both buildings will be approaching the age of 20 years old and may require upgrades beyond general maintenance. An assessment would be done on facility conditions including HVAC systems, plumbing, roofing, and boilers in order to create a plan to address the facility needs.

We will evaluate other buildings as they approach their individual 20 year marks to see if they require any upgrades. This will be used to keep up maintenance and upgrades on all public buildings as they age and require more than average maintenance. It will assist the department in prioritizing projects deemed necessary or useful by the assessments. The assessments will be useful in creating and maintaining sustainable buildings.

This was previously submitted.

Capital Project Request

Project Title: **Building Management System Upgrade**

Fiscal Year: **2020**

Purpose: **Construction**
 Department: Public Facilities
 Partners: ITC, School Department

Status: **Informational Only Details Incomplete**
 Funding Source: General Fund

Classification: **Technology**

Parameters	2020	2021	2022	2023	2024
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	Yes				

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$322,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$322,000	\$102,000	\$126,000	\$94,000	
Other Expenses	\$0				
TOTAL	\$322,000	\$102,000	\$126,000	\$94,000	\$0

\$0

Capital Project Request

Project Title: Building Management System Upgrade

Fiscal Year:

2020

Project Description and Considerations

The Town maintains a Building Management System on the school's server to manage the heating and cooling in all major facilities in Town. All of the buildings constructed since 2009, with the exception of the Newnam, are on the same system called Control Suite, LON works. These systems consist of internal sensors in the HVAC components and a backend software product that allows Public Facilities staff to review and diagnose HVAC issues remotely as well as on-site. This system is critical to the maintenance of healthy air temperatures in the building.

The IT department for the Town would like to upgrade and standardize all of the BMS so that we are only utilizing and maintaining one system. A part of the Newnam School will need to remain on a separate system due to the devices that were installed at the time of renovation. A retrofit would be necessary to completely migrate it to the new software. This will allow for greater standardization. It will change the manner of how HVAC data is communicated. Currently there are computer interfaces talking to devices within the building and then communicating this information to an outside computer for management. This new software would create a virtualized environment where the software would only be on the back end and no longer on the devices. This will rid us of unnecessary redundancy and help improve tracking. This will also allow all of the Town's buildings to integrate with the Town's afterhours permitting system which will reduce time for staff to input irregular schedules and ensure appropriate temperature for afterhours events. Additionally, the Town's IT department would like the system to be migrated to the Town's network, and the standardization will assist in this process.

This proposal is a phased approach to replacing the Front End of the BMS system so that all the buildings in Town will be on one system. It is proposed that this system will be the SmartStructure Building Management System.

In FY2020, the Town will upgrade the Front End Software and complete the conversion of the Pollard, Broadmeadow, Library, Mitchell, and Eliot. These are the oldest BMS systems in Town and it is possible in the future, the control panel for these systems will no longer be serviced.

In FY2021, the Town will upgrade the High School and the Newnam School. The High School has the most sophisticated HVAC system in Town and therefore is the most expensive to convert.

In FY2022, the Town will upgrade the Town Hall, High Rock, PSAB, Hillside, and Center at the Heights. If the Hillside is no longer being occupied at this time, it will not be converted.

18. The request will require assistance from the IT department.

Capital Project Request

Project Title: **Pollard Locker Room Retrofit**

Fiscal Year: **2021**

Purpose: **Construction/Renovation**
 Department: Public Facilities
 Partners: Needham Public Schools

Status: **Building**
 Funding Source: General Fund
 Revised Request from the Prior CIP

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **No Estimate Has Been Determined**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$378,107**

Project Budget Elements	Project Budget	2021	2022	2023	2024	2025
Planning/Feasibility	\$0					
Design/Engineering	\$61,232	\$61,232				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$316,875		\$316,875			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$378,107	\$61,232	\$316,875	\$0	\$0	\$0

Capital Project Request

Project Title: **Pollard Locker Room Retrofit**

Fiscal Year: **2021**

Project Description and Considerations

This request is to retrofit the locker rooms at the Pollard Middle School. This project would include installing new lockers, replacing existing tile and bathroom fixtures, and painting.

Retrofitting the locker rooms will make the space more functional. Many lockers are broken and there is a need for additional lockers due to larger class sizes. Tile flooring is starting to crack in places and will need replacing before becoming a safety hazard. General maintenance such as painting and replacing bathroom fixtures will also improve the current appearance.

In FY 2021, the department will work to get a design for the locker room retrofit. The construction on the locker room will be done in FY 2022.

- 4. Building, electrical, & plumbing permits will be required.
- 15. This request is necessary to extend the life of the building.
- 16. Flooring, lockers, fixtures, etc. will be permanently installed.

Capital Project Request

Project Title: **Emery Grover Roof Replacement**

Fiscal Year: **2022**

Purpose: **Construction/Renovation**

Status: **Future Request Details Incomplete**

Department: Public Facilities

Funding Source:

Partners: Needham Public Schools, Community Preservation Committee

Classification: **Building**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Estimated Project Cost: **\$159,035**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Project Budget Elements	2022	2023	2024	2025	2026
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$159,035				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$159,035	\$159,035	\$0	\$0	\$0

Capital Project Request

Project Title: **Emery Grover Roof Replacement**

Fiscal Year: **2022**

Project Description and Considerations

This request is to replace the existing roof at the Emery Grover Building. The existing slate roof at the Emery Grover is over 100 years old. It poses a continual maintenance problem and is beyond the expected 75 year life span of this roof type. In the Spring of 2010, leaks in the roof caused damage to flooring materials. These circumstances forced the Department to reprioritize its summer asbestos abatement work and caused interruption to the operations of the building .

A new environmentally conscious material that mimics the aesthetics of slate, but is composed of recycled rubber from tires will be used to replace this roof. This material would reduce the cost of installation by over one third and would reduce the cost of maintenance. The anticipated lifespan of this material is 50 years. If slate material is required the cost of this installation would be \$237,537.

Replacing this roof will increase the energy efficiency of this building and will decrease leaks and the cost of repair and inconvenience to the occupants.

This project is pending the results of the Emery Grover feasibility study.

- 4. Building permits will be required.
- 12. This project may be eligible for CPA funding.
- 15. This request is necessary to extend the life of the building.
- 16. Roofing will be permanently installed.

Capital Project Request

Project Title: **Fuel Station Relocation and Upgrade**

Fiscal Year: **2017**

Purpose: **Construction/Renovation**

Status: **Revised Request from the Prior CIP**

Department: **Public Works**

Funding Source: **General Fund**

Partners: **Public Facilities, Police, Fire, School Dept, COA, Assessors, Building**

Classification: **Facility**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's:

Estimated Project Cost: **\$1,451,000**

Project Budget Elements	2017	2018	2019	2020	2021
Planning/Feasibility	\$0				
Design/Engineering	\$131,000	\$131,000			
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$1,320,000	\$1,320,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$1,451,000	\$131,000	\$1,320,000	\$0	\$0

Capital Project Request

Project Title: **Fuel Station Relocation and Upgrade**

Fiscal Year:

2017

Project Description and Considerations

Currently DPW, Fire Department, School Department, and other Town vehicles rely on this filling station. Beginning in September 2013, all Police Department vehicles rely on this filling station as well. The Police Department consumes a large volume of gasoline, and the Department's reliance on this station represents a dramatic increase in use. This funding request reflects the anticipated costs of relocation of the fuel station, demolition of the existing station, installation of a new station, and demolition of the "old" salt shed. The fueling station will be located on property transferred to the jurisdiction of the School Committee but remaining under the control of the DPW. The station is relocatable.

The fuel station is proposed for replacement and relocation based on: general age, condition, location, environmental concerns (e.g. proximity to wetlands, proximity to groundwater table, threat of algae contamination, and susceptibility to flooding), access and maneuverability, capacity, and compatibility with the proposed expansion of the DPW Operations Building at 470 Dedham Avenue.

Design funding in the amount of \$131,000 was approved at the 2016 Annual Town Meeting, and construction funding will be sought at the 2017 Annual Town Meeting. The 2015 Annual Town Meeting approved funding for the upgrade of the Town's fuel management software. This software allows for greater reporting, accountability, and flexibility and can be utilized with a new fuel station.

While the funding source is listed as General Fund, enterprise funding may also be recommended.

4. Conservation Commission, and Planning Board permitting may be required.

16. Above ground tanks will be installed at location. They may be relocated should the facility be moved.

18. Undetermined at this time, but experience shows that assistance from ITC is required for projects of this type.

Capital Project Request

Project Title: **Athletic Facility and Public Recreation Improvements** Fiscal Year: **2018**

Purpose: **Construction/Renovation** Status: **Revised Request from the Prior CIP**

Department: **Public Works - Parks and Forestry** Funding Source: **Community Preservation Fund**

Partners: **Park and Recreation**

Classification: **Infrastructure**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **Between twelve (12) and eighteen (18) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$3,939,234**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$255,701	\$31,000	\$207,000			\$17,701
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$3,683,533	\$254,000	\$363,000	\$2,500,000	\$450,000	\$116,533
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$3,939,234	\$285,000	\$570,000	\$2,500,000	\$450,000	\$134,234

\$0

Capital Project Request

Project Title: **Athletic Facility and Public Recreation Improvements**

Fiscal Year: **2018**

Project Description and Considerations

The Department of Public Works and Park and Recreation have developed a maintenance plan for all fields, which includes new or total reconstruction, partial renovation, irrigation, drainage improvements, and equipment replacement or repair (bleachers, fences/backstops, player benches and miscellaneous equipment) for multi-use fields and ball diamonds.

FY18 - Cricket Field – Drainage and field renovation for Field #2, irrigation renovation for both fields, Engineering & Construction

FY19 - Claxton Field – Upgrade field lighting system to more energy efficient lights: Construction

Turf Field Replacement at DeFazio & Memorial Park – remove the existing turf carpet, regrade, and install new artificial field turf: Engineering

FY20 - Turf Field Replacement at DeFazio & Memorial Park – remove the existing turf carpet, regrade, and install new artificial field turf: Construction

FY21 - McLeod Field - drainage repair, amend soils, and install new sod: Construction

FY22 - Softball Skin Renovation Claxton 1 & 2: Design & Construction

ADDITIONAL FUTURE PROJECTS:

DeFazio Drain Pipe - the project involves construction of a structural lining within an existing 42" drain pipe crossing McLeod Field at the DeFazio complex

Avery Field – improve parking (DPW road project)

Broadmeadow School Diamond #1 expand infield skin and irrigation adjustment, drainage for diamond #2

DeFazio Complex – install walking path with protective netting to DeFazio #1

High Rock Fields– new backstop, player benches, perimeter fencing

Perry Park – new backstop, player benches, player fencing

Dwight Field – improve player bench areas and overall fencing

DeFazio Tot-Lot – improve fencing

Construction of new athletic fields (locations - TBD)

4. Conservation Commission permitting can be satisfied by preparing the pipe and the installation of hay bales and sedimentation barriers and Planning Board filing may be required.

12. All items except for Turf Fields are eligible for Community Preservation Funds.

14. Several sink holes have developed in the past seven years due to the DeFazio drain pipe being crushed.

18. The Department of Public Works will be partnering with Park and Recreation on each of these projects.

Capital Project Request

Fiscal Year: **2018**

Project Title: **DPW Seasonal Storage Facility @ RTS**

Status: **Informational Only Details Incomplete**

Funding Source: **General Fund**

Classification: **Building**

Purpose: **Design/Engineering**

Department: **Public Works**

Partners: **PPBC**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$6,860,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$550,000	\$550,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$6,310,000		\$6,310,000			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$6,860,000	\$550,000	\$6,310,000	\$0	\$0	\$0

Capital Project Request

Project Title: **DPW Seasonal Storage Facility @ RTS**

Fiscal Year: **2018**

Project Description and Considerations

The on-going DPW relocation feasibility study determined that approximately 14,000 s.f. of storage space required to fulfill the DPW operations programming needs cannot fit on the existing site (470/484 Dedham Avenue). Weston & Sampson evaluated many options and locations, recommending that a seasonal storage facility be constructed in a remote location consisting of a building of approximately 7,000 s.f. and covered storage (canopy) of another 7,000 s.f. After reviewing recommendations with the PPBC and Board of Selectmen, Weston & Sampson has recommended that the facility be located at the RTS. Locating the seasonal storage building at the RTS will necessitate the relocation of the "materials processing area" to the currently unused acreage adjacent to the site. Design funding is proposed for FY2018 and construction funding for FY2019.

While the funding source is listed as General Fund, enterprise funding may also be recommended. Project features continue to be refined and the design and construction estimates are subject to change.

4. Conservation Commission , Planning Board and/or DEP permitting may be required.
7. Construction of the new building will impact building and grounds and insurance costs.
17. Work proposed for the relocation of the materials processing area is primarily site work,
18. Undetermined at this time, but experience shows that assistance from ITC is often required for this type of project.

Capital Project Request

Fiscal Year: **2018**

Project Title: **DPW Specialty Equipment**

Purpose: **Acquisition**

Department: **Public Works**

Partners:

Classification: **Heavy Equipment**

Status: **Revised Request from the Prior CIP**

Funding Source: **General Fund**

<u>Parameters</u>	<u>Response</u>
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$385,000**

<u>Project Budget Elements</u>	<u>Project Budget</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$385,000	\$30,000	\$72,000	\$80,000	\$163,000	\$40,000
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$385,000	\$30,000	\$72,000	\$80,000	\$163,000	\$40,000

\$0

Project Title: **DPW Specialty Equipment**

Fiscal Year: **2018**

Capital Project Request

Project Description and Considerations

Replacement for FY 18:

New – Parks & Forestry – Field Renovator - Renovates baseball diamonds - will be the 2nd field renovator in the fleet which is more appropriate for the acreage that Parks & Forestry maintains; de-weed clay skins, makes clay skins look fresh and play worthy

Replacement for FY 19:

Unit #344 - Parks & Forestry - Specialty Mower - Performs 2nd cut on the marquees fields, large machine

Replacement for FY 20

Unit # 351 – Parks & Forestry - (Tractor) - Multi-use utility equipment

Replacement for FY 21

New - Highway - Loader mounted snow blower - clearing gutter lines, parking lots, loading trucks

Replacement for FY 22

Unit #334 - Parks & Forestry - Specialty Mower - Performs 2nd cut on the marquees fields, small machine

The change from the prior year submission is that the Tractor (#351) and the Specialty Mower (#344) were switched.

Capital Project Request

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

Purpose: **Construction/Renovation**

Status: **Revised Request from the Prior CIP**

Department: **Public Works**

Funding Source: **General Fund**

Classification: **Infrastructure**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between twelve (12) and eighteen (18) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$9,957,063**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$678,000	\$228,000		\$190,000		\$260,000
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$9,279,063	\$1,534,000	\$2,025,000	\$1,490,500	\$2,771,513	\$1,458,050
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$9,957,063	\$1,762,000	\$2,025,000	\$1,680,500	\$2,771,513	\$1,718,050

\$0

Capital Project Request

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

Project Description and Considerations

The Public Works Infrastructure Program allows the Department of Public Works to make improvements and repairs to Town infrastructure, including but not limited to roads, bridges, sidewalks, intersections, drains, brooks and culverts. Each program is detailed below.

Due to the additional need for drainage work related to the Labor Day storm in 2013 the Traffic Signal & Intersection Improvement requests have been delayed two years. The FY 16 existing Storm Drain Capacity Improvement request has been delayed one year, and the Street Resurfacing and Sidewalk Program has been reduced throughout all five years of the request.

Street Resurfacing:

This Program is essential to improve the structural and surface integrity of the Town's approximately 279 lane miles of accepted streets. The Town targets 17 lane miles per year to get a desired life cycle of 15 to 20 years. The primary strategy of this program is asphalt paving and incidental work. Incidental work may include asphalt berm curb, new grass shoulders, corner reconstruction including handicapped ramps, minor drainage improvements, street sign replacement, traffic markings, and signs.

Applying this repair strategy in a timely manner will extend the useful life of the roadway for up to 15 years. Installing a monolithic asphalt berm curb better defines the edge of road, improves drainage and protects the shoulder from erosion.

The Town targets roads with a PCI of below 70 for resurfacing or specialized treatment. The Town targets a PCI of 60 or below for repair/renovation. The Town's goal is to maintain its roadway network at an average PCI rating of 75.

The funding for FY 2018 has increased from the prior year's submission to address the overall Pavement Condition Index (PCI) which was 67 in the Fall of 2014.

The cost per lane mile for resurfacing in FY 2017 is \$78,000 or more per lane mile. A basic asphalt overlay at 1.5 inches with asphalt berm curb and casting adjustments is \$60,000 per lane mile.

The average useful life for asphalt paving is 15 years.

- FY18 - \$800,000
- FY19 - \$820,000
- FY20 - \$840,500
- FY21 - \$861,513
- FY22 - \$883,050

Capital Project Request

Project Title: **Public Works Infrastructure Program**

Fiscal Year:

2018

Supplemental Information

Traffic Signal & Intersection Improvements:

The costs are estimated by Engineering and require conceptual scope of work for project level costs that have not yet been determined. This Program will fund Traffic Signal Improvements & Intersection Improvements and new traffic signal installations where none currently exist.

FY18 - Highland Avenue @ West Street, Engineering & Design \$128,000

FY19 - Highland Avenue @ West Street, Construction - \$505,000

FY20 - Great Plain Avenue @ Greendale Avenue, Engineering & Design \$110,000

FY21- Great Plain Avenue @ Greendale Avenue, Construction \$643,000

FY22 - Central Ave @ Great Plain Ave, Engineering & Design \$160,000

Sidewalk Program:

This Program requires funding for the Town to address the failing network of sidewalks throughout the community. There are over 160 miles of accepted sidewalks in Needham. Over half of the Town's sidewalks do not comply with current standards and require significant improvements including the installation of handicapped ramps. Sidewalk improvements must comply with Federal and State laws and construction standards. The cost for sidewalk rehabilitation and reconstruction can vary significantly. Current estimates have identified over \$20,000,000 in backlogged sidewalks in need of repair.

Fiscal year 2017 contract pricing to reconstruct one mile of asphalt sidewalk with incidental costs is estimated to be \$242,888 per mile (\$46.00/lf). Contract pricing to install a mile of granite curb with minor drainage improvements and incidental costs is estimated to be \$269,280 per mile (\$51.00/lf). These costs do not include engineering, design, tree removal and replacement, major drainage improvements or major public or private property adjustments.

FY18 - \$484,000

FY19 - \$300,000

FY20 - \$450,000

FY21 - \$382,000

FY22 - \$500,000

Storm Drain Capacity Improvements:

This Program provides funding to improve roadway drainage capacity. The March 2002 Stormwater Master Plan identified a number of areas throughout Needham where improvements are required to resolve flooding problems and illicit discharge. Locations for improvements have been prioritized within the plan. This funding request also includes, but is not limited to, the installation of additional storm drains and the replacement and extension of drains on Manning Street, Hoover Road, Concord Road and Burnside Road with larger capacity drains. Since the issuance of the 2002 Stormwater Master Plan numerous multi-unit developments have been built or planned in the Town of Needham. These developments include new roads with drainage structures and roof or sump connections that are then connected to existing Town systems. These new connections have increased the load on the Town's drainage system and caused flooding in some areas.

Capital Project Request

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

Due to extensive drainage repairs that were required on Greendale Ave, funds for FY 17 were diverted from Ardmore Road & Hunnewell Street to complete that project, and that project is being requested again for FY 18.

- FY18 - Ardmore Rd. & Hunnewell St. or Other Prioritized Projects - Engineering & Design \$100,000
- FY19 - Ardmore Rd. & Hunnewell St. or Other Prioritized Projects - Construction \$350,000
- FY20 - Concord St. & Burnside Rd. or Other Prioritized Projects - Engineering & Design \$80,000
- FY21 - Concord St. & Burnside Rd. or Other Prioritized Projects - Construction \$510,000
- FY22 - TBD or Other Prioritized Projects - Engineering & Design \$100,000

Future Areas to be considered, but not yet prioritized:

- Carey Road (area 2) - Engineering \$42,800
- Carey Road (area 2) - Construction \$156,800
- Foxhill Rd., Canterbury Lane, South St., and X-Country (Area 10) - Engineering \$41,800
- Lower Hunnewell St. Drainage improvements, Engineering & Construction 305,000
- Foxhill Rd., Canterbury Lane, South St., and X-Country (Area 10) - Construction
- Oak St. (Area 8), Mackintosh Ave. (Areas 3 & 7), Oxbow Rd. (Area 9) and West St. (Area 11)
- Fairfield St. and Elmwood Rd. (Area 5)

Storm Drain System Repairs:

This Program provides funding to repair failing storm drainage infrastructure within Town easements that have been discovered through investigation work. These projects will include the replacement of existing culverts that have deteriorated over time and are restricting flow. This work will eliminate flooding and capacity issues in the immediate vicinity. This project will provide funding over five years for the Drains Division to address small projects related to the Labor Day 2013 storm drainage remediation.

- FY18 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$50,000
- FY19 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$50,000
- FY20 - No Funding Request
- FY21 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$75,000
- FY22 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$75,000

Brooks and Culverts – Repair and Maintenance:

It is the intention of the DPW to expend Capital Funds to address the issue of poorly draining brooks, streams, waterways and culverts throughout the Town that have been severely damaged by heavy rains/storms in the past. Flooding in March 2010 caused the failure of retaining walls, resulting in extensive erosion and silt deposits in brooks and streams. The silt has provided a medium for vegetation and affected the flow of water, and the situation has resulted in the loss of useable abutting property and flooded basements. The current conditions are beyond the means of DPW equipment and personnel. It will require a detailed investigation, a plan of recommended improvements, a design drawing and specifications, environmental permitting and bidding of construction to be overseen by the Town's Engineering Division. This will return the waterways to a condition that the DPW will be able to maintain.

Capital Project Request

Project Title: **Public Works Infrastructure Program**

Fiscal Year:

2018

The Environmental Protection Agency (EPA) is currently finalizing stronger requirements for stormwater and permitting under the NPDES permit. The Town will need to continue to demonstrate its efforts regarding cleaning and improvements to water quality of brook and culverts to avoid fines from the EPA.

FY18 - Culvert at Meadowbrook Rd. - Construction \$200,000

FY19 - No Funding Request

FY20 - Continued wall repair along Rosemary Brook - Construction \$200,000

FY21 - Meredith Circle - Engineering & Construction \$300,000

FY22 - No Funding Request

Future Projects include, but are not limited to, the following locations:

Winding River Road

Locust Lane

Fuller Brook Avenue

Oxbow Road

Webster & Howland Streets

Brookside Road & Forest Street

Chestnut Street & Carriage Lane

Emerson Place

Pennsylvania Avenue

Elder Road

Roadway Reconstruction

Request for full road reconstruction. This differs from the road rehabilitation program because it requires more complete design and construction. Rehabilitation similar to a house renovation whereas reconstruction is similar to a knock-down and rebuild. Roads do not just consist of the top layer of asphalt, it is a complete system that has its own foundation. The Town evaluates the sight distance, drainage, handicap ramps, sidewalks, subsurface utilities, public utility poles and overhead utilities. The physical conditions of roads to be considered for this article would be shape, foundation and traffic volume. This relates to the historic nature of how the Town has evolved historically with roads being constructed as opposed to being designed. This is a multi-year process requiring surveying, designing, utility evaluation and construction.

Some of the roads that may be targeted for reconstruction include:

Marked Tree Road

Nehoiden Street

Kingsbury Street

Sections of Central Avenue

Webster Street from Dedham Avenue to South Street

Capital Project Request

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

Bridge Repairs

Surrounded on three sides by the Charles River, the Town jointly maintains a number of bridges with neighboring communities. The Massachusetts Bridge Inspection Program has identified a number of bridges that have some level of deficiency and has recommended repairs. This Program is essential to improve the structural and/or surface integrity of all bridges throughout Needham. Capital Project costs will include surveying, engineering evaluation, design, and repair or reconstruction. Bridges are one of the infrastructure assets whose value and depreciation are now tracked under the GASB 34 Program.

Massachusetts Department of Transportation issued a report on Newell's Bridge which is on Central Ave to Dover, which indicated that the bridge is deficient and in need of repair. The Town will work with Dover to determine how to address these deficiencies.

Cooks (Elliot) Bridge - Central Ave to Newton Upper Falls presently under construction with construction to be completed by May 2017.

Other Bridges (all were recently reconstructed)

- Fisher's Bridge, South St to Dover
- Pierce's Bridge, Charles River St. to Dover and So. Natick
- Kendrick Bridge to Newton

No funding requested at this time.

4. Conservation Commission permitting may be required for drainage repairs, brooks and culvert repair and roadway reconstruction.
14. Nehoiden St. and Marked Tree Rd. documentation being a safety issue from School Safety Committee.

Summary Table

	Street Resurfacing		Traffic Signal & Intersection Improvements		Sidewalk Program		Storm Drain Capacity Improvements		Storm Drain System Repair		Brooks & Culverts		Total	
	Const.	CPR	Engin.	Const.	CPR	Const.	CPR	Engin.	Const.	CPR	Const.	Engin.	Const.	Total
2018	\$ 800,000	CP-1-2016	\$ 128,000		CP-2-2016	\$ 484,000	CP-3-2016	\$ 100,000	CP-4-2016	\$ 50,000	CP-5-2016	\$ 228,000	\$ 1,534,000	\$ 1,762,000
2019	\$ 820,000	CP-67-2016		\$ 505,000	CP-75-2016	\$ 300,000	CP-79-2016	\$ 350,000	CP-83-2016	\$ 50,000	CP-87-2016	\$ -	\$ 2,025,000	\$ 2,025,000
2020	\$ 840,500	CP-68-2016	\$ 110,000		CP-76-2016	\$ 450,000	CP-80-2016	\$ 80,000	CP-84-2016		CP-89-2016	\$ 190,000	\$ 1,490,500	\$ 1,680,500
2021	\$ 861,513	CP-69-2016		\$ 643,000	CP-77-2016	\$ 382,000	CP-81-2016	\$ 510,000	CP-85-2016	\$ 75,000	CP-89-2016	\$ -	\$ 2,771,513	\$ 2,771,513
2022	\$ 883,050	CP-74-2016	\$ 160,000		CP-78-2016	\$ 500,000	CP-82-2016	\$ 100,000	CP-86-2016	\$ 75,000		\$ 260,000	\$ 1,458,050	\$ 1,718,050
Total	\$	4,205,063	\$	1,546,000	\$	2,116,000	\$	1,140,000	\$	250,000	\$	700,000	\$	9,957,063

Capital Project Request

Project Title: **Time Clock System** Fiscal Year: **2018**

Purpose: **Acquisition** Status: **Revised Request from the Prior CIP**

Department: **Public Works** Funding Source: **General Fund**

Classification: **Technology**

Partners: **Public Facilities Operations, Human Resource, ITC**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	Yes
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$72,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$72,000	\$72,000				
Other Expenses	\$0					
TOTAL	\$72,000	\$72,000	\$0	\$0	\$0	\$0

Capital Project Request

Project Title: **Time Clock System**

Fiscal Year: **2018**

Project Description and Considerations

The Town does not currently have a time clock system that tracks the hours of the staff. This project is to implement a time clock system to track the hours of the staff who work for the DPW and PFD, with the understanding that this program may be extended to other staff throughout the Town. This system will integrate with the Town's accounts payable software to facilitate the processing of payroll. It will allow staff to "punch-in" at the beginning and the end of their shifts to ensure that payroll records are accurate and resolve discrepancies currently found in the paper system. It will reduce the current double entry system where the division generates a manual time card and then this time card is entered into our payroll system. This system should be properly sourced so that it may be used with other bargaining groups and/or non-represented employees should it be deemed appropriate.

Employee Licensing \$2,400 - includes free support and free upgrades

Hardware Support \$2,940 - includes hardware trouble shooting and firmware updates

This will be a time clock system for NIPEA and BCTIA employees that will integrate with the Infinite Visions payroll system.

Costs:

Hardware & Software

Annual Maintenance Costs

Installation & Training

1. The ITC needs to identify if there will be any additional costs with other vendors such as Active Directory.
2. The ITC budget will have to be increased to accommodate the licensing.
7. The ITC budget will have to be increased to accommodate the licensing.
11. There would be software licensing.
18. Information Technology Center and Human Resources will be required to provide assistance in order to complete the project.

Capital Project Request

Fiscal Year: **2018**

Project Title: **Traffic Improvements**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **New Request**

Department: **Public Works - Engineering**

Funding Source: **General Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Public/employee health or safety**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **May increase annual operating expenses between \$5,001 and \$25,000**

Total New FTE's: **0**

Estimated Project Cost: **\$449,000**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$449,000	\$50,000	\$50,000	\$50,000	\$50,000
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$449,000	\$249,000	\$50,000	\$50,000	\$50,000

\$0

Capital Project Request

Project Title: **Traffic Improvements**

Fiscal Year:

2018

Project Description and Considerations

This Article will allow for the funding of projects that are recommended by the Traffic Management Advisory Committee (TMAC). These recommendations include items such as permanent speed monitoring devices, traffic calming measures, and school zone enhancements. These items are not presently included in the Department of Public Works operating budget. The \$50,000 annual request will support one or two TMAC construction related requests per year such as 500 feet of roadway granite curb installation, two school zone installations, two average traffic calming installations, several radar sign installations or sign and/or pavement markings.

FY18 Cedar Street and Central Avenue Intersection Improvements (\$199,000)

This project was recommended by the Safe Routes to School Study that was done for the Eliot School. The project will improve the safety for vehicles and pedestrians crossing at the intersection by relocating curbing and sidewalk areas. This will shorten the distance of the cross-walk and allow the crossing guard to have better control over traffic flow and pedestrian crossings.

Examples of Previous TMAC Requests

- Flashing LED pedestrian signs and school zone signs for Eliot School
- Handicap ramps and cross-walks at various locations
- Children playing signs

Examples of Potential Future TMAC Projects

- Granit curb installation on Paul Revere Rd.
- Advisory curve signs with speed tabs on Forest St.
- Traffic signal timing adjustments at Great Plain Ave. and Central Ave.

4. Depending on recommendation from TMAC there may be permitting requirements with Conservation Commission, Planning Board, Zoning Board of Appeals and Building Department.

6. The maintenance budget for the Highway Division will need to be increased so that improvements can be maintained. The cost of maintenance will vary based on the type of improvement made. This can vary from \$100-\$1,000 annually.

7. If electricity is required for any of these improvements then the Needham Light, Electric, and Gas Program budget may be increased to fund the electricity costs.

14. This request is in response to the recommendations by the Traffic Management Advisory Committee (TMAC) and Safe Routes to School report.

16. Improvements under this article could include signage, signaling, curbing, or other traffic calming measures that will be permanently installed at the determined locations.

Capital Project Request

Fiscal Year: **2019**

Project Title: **Asa Small Field Renovation**

Purpose: **Construction** Status: **New Request**
 Department: Public Works - Parks and Forestry Funding Source: General Fund
 Partners: Park and Recreation, Needham Youth Sports Groups

Classification: **Infrastructure**

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	Yes				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Prior Projects**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$141,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$141,000	\$141,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$141,000	\$141,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Asa Small Field Renovation**

Fiscal Year: **2019**

Project Description and Considerations

This project will address field deficiencies on the Asa Small ball diamond at the Defazio complex. The project will include striping, regrading, amending soils, new baseball skin surface and new irrigation system. The field conditions were not addressed as part of the Field of Dreams project. This project may include additional amenities funded by user groups including field lights, score board, bleachers and an increased sized batting cage.

4. This project may require permitting from Conservation Commission, Planning Board, Zoning Board of Appeals and Building Department.
12. This project may be eligible for Community Preservation funds under Recreation.

Capital Project Request

Project Title: **Permanent Message Boards**

Fiscal Year: **2019**

Purpose: **Acquisition**

Classification: **Technology**

Status: **Revised Request from the Prior CIP**

Department: **Public Works - Engineering**

Funding Source: **General Fund**

Partners: **Town Manager's Office**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **New function or service**

How was the Estimated Project Cost Determined: **Prior Projects**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$224,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$224,000	\$90,000	\$47,000		
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$224,000	\$87,000	\$90,000	\$47,000	\$0

Capital Project Request

Project Title: **Permanent Message Boards**

Fiscal Year:

2019

Project Description and Considerations

In support of the Board of Selectmen's goals this request is for up to seven (7) permanently installed message boards to communicate with residents. This will alleviate competition for the current message boards. The new message boards will have the capacity to be programmed remotely and simultaneously from a Town work station or a laptop. There will be minimal operating costs, including a data plan to allow for remote updates and electricity for each location.

Currently the Public Works Department has 3 mobile message boards that are used for large construction projects. These message boards are removed from construction projects and relocated to various sites in Town when requested for non-construction notifications to residents and commuters. The existing message boards are difficult to maneuver, time consuming to program, and are often not available for non-emergency notices.

In the May 2014 Annual Town Meeting funding was approved for a pilot program at the RTS. This message board was installed in the Spring of 2016 and the Town is establishing policies for the use of this board.

The increase in cost from prior years submission is a reflection of the actual costs of the board, which the Town opted for a double sided board, and the stone wall that serves both an aesthetic and structural function.

FY19 - Two Message Boards

Proposed Locations:
Public Safety Building
Fire Station #2
South St @ Dedham Ave
Central Ave @ Great Plain Ave
Greendale Ave @ Great Plain Ave

4. Conservation Commission permitting may be required for some locations. Depending on the location a building permit and Design Review Board Approval may be required.
6. There will be minimal operating costs for these boards which included cellular service for remote programming and electricity.
16. These message boards will be permanently installed at the chosen location.
17. This request is to improve public property by installing informational message boards.
18. The Town Manager's Office will assist in the programming of these message boards.

Capital Project Request

Project Title: **Town Common Historic Redesign and Beautification**

Fiscal Year: **2019**

Purpose: **Construction/Renovation**

Classification: **Infrastructure**

Status: **Revised Request from the Prior CIP**

Department: **Public Works - Parks and Forestry**

Funding Source: **Community Preservation Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Estimated Project Cost: **\$600,300**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$600,300				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$600,300	\$600,300	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Town Common Historic Redesign and Beautification**

Fiscal Year:

2019

Project Description and Considerations

The Town is presently completing an internal design process for the Town Common. This will include improved hardscape, landscaping, amenities, tree plantings, and utility improvements that are consistent with the historic nature of the common as well as the improvements being made in the downtown streetscape improvement project.

This will include improving the landscaping with new sod, trees, and plantings. The hardscape services will be upgraded to a more low maintenance and handicapped accessible materials. The pathways and landscaping will be adjusted to become more aesthetically and functionally enhanced. There will be increased electrical and sound capacity to accommodate Town-wide events. This work will complement the new Town Hall and enhance the new "blue" tree.

This project has been pushed back one year to allow for the Downtown Streetscape Improvements to be completed.

4. This project may be subject to Planning Board review.

12. This project is being evaluated for eligibility of Community Preservation Funds through the category of Historic Preservation.

Capital Project Request

Project Title: **DPW Complex** Fiscal Year: **2020**

Purpose: **Construction/Renovation** Revised Request from the Prior CIP

Department: Public Works

Partners: PPBC, Building

Classification: **Building**

Status: **General Fund**
 Funding Source: **General Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined:

Useful Life: **More than twenty-five (25) years**

Budget Impact: **May increase annual operating expenses between \$5,001 and \$25,000**

Total New FTE's: **0**

Estimated Project Cost: **\$37,950,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$2,950,000	\$2,950,000			
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$35,000,000			\$35,000,000	
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$37,950,000	\$0	\$2,950,000	\$0	\$35,000,000
	\$0				\$0

Capital Project Request

Project Title: **DPW Complex**

Fiscal Year: **2020**

Project Description and Considerations

The Public Services Administration Building (PSAB, 500 Dedham Ave) was occupied by the DPW in November 2011, eliminating the space problems and air quality issues experienced on the second floor of the DPW Operations Building. However, significant deficiencies continue to exist throughout the 470 Dedham Avenue building internally and the DPW site externally. Operations and maintenance staff are located in this facility. The poor condition of the current building, unmet equipment and vehicle storage, stormwater quality issues require a solution.

At the 2015 Annual Town Meeting, the sum of \$40,000 was appropriated for a feasibility study for the appropriate location(s) for a facility to provide the various DPW services. Weston and Sampson was engaged to develop a DPW building program and site features capable of cost effectively and efficiently supporting the services offered by the DPW. The study included inspection of existing facilities, identification of deficiencies, interviews with staff, identification of current and future needs, development of conceptual alternatives, evaluation of preferred sites, and a recommendation for phased reconstruction of the 470/484 Dedham Avenue parcel with associated construction of an off-season storage facility to accommodate that portion of the DPW program that does not fit on Dedham Avenue.

The proposed layout includes demolition of the existing DPW structures at 470 and 484 Dedham Avenue, and construction of a new consolidated public works facility. Related projects include replacement of the fuel island, demolition of the existing fuel island, and demolition of the "old" salt shed. That project is proposed for FY2018 and is included in the CIP as a separate request. Additionally, construction of a seasonal storage building and relocation of the material processing area at the RT5 is proposed. Design of that project is proposed for FY2018, also under a separate CIP submittal. Construction of the DPW operations facility will be the final phase of the DPW Complex improvements.

While funding for the reconstruction project at 470/484 Dedham Avenue is listed as General Fund, enterprise funding may also be recommended. Project features continue to be refined and the design and construction estimates are subject to change.

4. The project will require Planning, Conservation, and possibly DEP permitting.
7. Construction of the new building will impact building and grounds and insurance costs.
18. Undetermined at this time but experience shows that assistance from ITC is required for projects of this type.

Capital Project Request

Fiscal Year: **2019**

Project Title: **Library Furniture**

Purpose: **Acquisition**

Department: **Library**

Partners:

Classification: **Equipment/Furniture**

Status: **New Request**

Funding Source: **General Fund**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$284,240**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$284,240	\$45,320	\$97,920	\$84,000	\$57,000
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$284,240	\$45,320	\$97,920	\$84,000	\$57,000

#VALUE!

Capital Project Request

Fiscal Year: **2019**

Project Title: **Library Furniture**

Project Description and Considerations

The "new" library has been open to the public for more than ten years, and, due to heavy use, the furniture is beginning to show wear and tear. Both public and staff computer chairs are slowly breaking and the covering on the arms is splitting. For staff members, the computer chair is their desk chair. As staff chairs break, a public computer chair has been taken from the public computers and moved into a staff office. Some of the mesh on the Community Room stackable mesh chairs is unravelling, the backs are separating from the frames, and food has been caught in the mesh and proven unable to be removed. The forty-two cloth public arm chairs are showing the ravages of heavy use, particularly the arms of the chairs. The thirty-eight leather public arm chairs are also beginning to show wear.

The prices listed in this request were obtained from manufacturer's websites.

29 Public computer chairs @ \$380 each	\$24,070
25 Staff computer chairs @ \$850 each	\$21,250
160 Community Room Audience stackable chairs @ \$612 each	\$97,920
42 Public lounge chairs (cloth) @ \$2,000 each	\$84,000
38 Public lounge chairs (leather) @ \$1,500 each	\$57,000
Total	\$284,240

1. The services of a design consultant may be needed
16. All furniture would be installed at the library
18. Public Facilities personnel may be needed to help move furniture

Capital Project Request

Project Title: **Library RFID Conversion Project**

Fiscal Year: **2019**

Purpose: **Acquisition**

Classification: **Technology**

Status: **Revised Request from the Prior CIP**

Department: **Library**

Funding Source: **General Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **May increase annual operating expenses between \$5,001 and \$25,000**

Total New FTE's: **0**

Estimated Project Cost: **\$121,975**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$127,200				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$127,200	\$127,200	\$0	\$0	\$0

TOTAL **\$127,200** **\$127,200** **\$0** **\$0** **\$0**

-55,225

Capital Project Request

Project Title: Library RFID Conversion Project

Fiscal Year: 2019

Project Description and Considerations

RFID, Radio Frequency Identification, is the technology toward which libraries are migrating, as a means to increase efficiency and to cut down on repetitive action tasks. The advantages of the system include:

1. Reduction in the time necessary to check in and check out library materials (In FY16, the library checked in and out more than 1,000,000 items--129,938 checkouts were done by customers on self-checkout).
2. Information can be read faster from the RFID tags than from barcodes
3. The items in a stack can be read at the same time, as opposed to barcodes that must be read one at a time. Checking a stack of materials in and out reduces repetitive action tasks, saving time and helping to avoid repetitive stress syndrome in employees
4. Patron self-checkout is simplified--patrons do not have to carefully line up a barcode with a laser beam
5. Opens the possibility of electronic inventorying, item searching, and shelf order checking

There are forty-three Minuteman Library Network libraries. Currently (fall 2016) twelve Minuteman libraries are using RFID; four libraries are placing RFID tags in materials (the first step in migrating to RFID); and four more have expressed interest. The current thinking and discussions at Minuteman committee meetings is that, eventually, all Minuteman libraries will move to RFID. The libraries that are now operating with RFID have formed a "service" group for interlibrary loan service. Requests from these libraries go automatically to the other RFID libraries (they are the larger libraries in the system), where items are found and requests filled faster than at the non-RFID libraries. In FY16, Needham requested 66,390 items from other libraries for the use of Needham residents. Needham sent 61,613 items to other libraries. With an RFID system that includes a portable scanner, these items could have been retrieved faster from the library's shelves, increasing the efficiency of a library employee.

RFID System Cost:

RFID tags:	150,000 books @ \$0.16 each	\$24,000	
	35,000 media @ \$0.63	\$22,050	Total
			\$46,050

Conversion Stations:

	2 @ \$11,178 each	\$22,356	
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Staff Station Equipment:

	4 Staff Stations (Circulation Desk) @ \$4,895 each	\$19,580	
	1 Portable Scanner @ \$5,200	\$5,200	Total
			\$24,780

Self-Checkout Equipment:

	3 Self-Checkout Stations @ \$6,860 each	\$20,580	
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Software:

	4 Staff Stations @ \$266 each	\$1,064	
	3 Self-Checkout Stations @ \$2,540 each	\$7,620	Total
			\$8,684

Installation and Training:

	Pre-Installation Site Survey	\$1,500	
	Remote Configuration/Training	\$750	
	On-Site Training (per day)	\$2,500	Total
			\$4,750

Total Project Cost: \$127,200

Capital Project Request

Project Title: **Library RFID Conversion Project**

Fiscal Year: **2019**

Supplemental Information

6. The operating budget will need to be increased for the yearly cost of RFID tags:

Books:	10,500 @ \$0.16 each	\$1,680	
Media:	3,200 @ \$0.63 each	\$2,016	

Total \$3,696

and software licensing:

4 staff stations @ \$266 each	\$1,064
3 self-checkout stations @ \$2,540	\$7,620

Total \$8,684

Total yearly operating budget increases \$12,380

11. Annual licensing listed under #6

16. All equipment will be installed at the library.

Capital Project Request

Project Title: **Purchase of Open Space** Fiscal Year: **2018**

Purpose: **Acquisition** Classification: **Land** Status: **Revised Request from the Prior CIP**

Department: **Park and Recreation** Funding Source: **Community Preservation Fund**

Partners: **Conservation Commission, Board of Selectmen**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Other (see below for information)**
 How was the Estimated Project Cost Determined: **In-House Estimate**
 Useful Life: **More than twenty-five (25) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's: **0**

Estimated Project Cost: **\$1,000,000**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$1,000,000				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$1,000,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Purchase of Open Space**

Fiscal Year:

2018

Project Description and Considerations

Without much notice, opportunities to purchase private land to add to the open space inventory surface each year. In particular, some opportunities arise during discussions of the development of private land. This project request is to keep all aware of the possibility, in the near future, of a purchase moving forward. This request is a "place holder" in the event a parcel that benefits the community becomes available.

Unexpectedly, in FY 2010, the purchase of two parcels of land on Carol Road and Brewster Drive, as well as a parcel on Charles River Street, adjacent to Walker-Gordon Field were all funded through CPA funds. It is possible that some purchases would relate to easements, as opposed to full ownership of the land. The Open Space and Recreation Plan reflects the goal of making additional purchases, especially in areas of Town without current open space to retain open areas, or to create access to other parcels, including connections to the Charles River. The purchase of parcels adjacent to current open space is also a high priority. Some parcels may require improvements which would be submitted as separate capital improvement projects. Under the current CPA legislation, parcels purchased with CPA funds are eligible for improvement funds from CPA. The CPA indicates how the value of the property is determined.

The Town Manager and Town Counsel would need to be involved in discussions, deliberations and negotiations.

Capital Project Request

Project Title: **Rosemary Recreation Complex**

Fiscal Year: **2018**

Purpose: **Construction**

Classification: **Facility**

Status: **Revised Request from the Prior CIP**

Department: **Park and Recreation**

Funding Source: **Community Preservation Fund**

Partners: **Public Facilities-Construction; PPBC; Health and Human Services**

Parameters		2018	2019	2020	2021	2022
1.	Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				No
2.	Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				No
3.	Does the project support activities to produce new revenue for the Town?	Yes				Yes
4.	Does this project require any permitting by any Town or State agency?	Yes				Yes
5.	If funded, will additional permanent staff be required?	Yes				Yes
6.	If funded, will the operating budget need to be increased to cover operating expenses?	Yes				Yes
7.	If funded, will this project increase the operating expense for any other department?	Yes				Yes
8.	If funded, will this project lower the requesting Department's operating costs?	No				No
9.	If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				No
10.	If the project is NOT funded, will current Town revenue be reduced?	Yes				Yes
11.	Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes				Yes
12.	Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				Yes
13.	Is this a request in response to a Court, Federal, or State order?	Yes				Yes
14.	Is this a request in response to a documented public health or safety condition?	No				No
15.	Is this a request to improve or make repairs to extend the useful life of a building?	Yes				Yes
16.	Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes				Yes
17.	Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes				Yes
18.	Will any other department be required to provide assistance in order to complete the project?	Yes				Yes

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **May increase annual operating expenses between \$25,001 and \$50,000**

Total New FTE's: **0**

Estimated Project Cost: **\$15,800,000**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$14,930,000	\$14,930,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$382,000				
Technology Hardware/Software	\$110,000				
Other Expenses	\$378,000				
TOTAL	\$15,800,000	\$15,800,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Rosemary Recreation Complex

Fiscal Year: 2018

Project Description and Considerations

This project received design funds at two prior Town Meetings: FY'15 \$450,000 and FY'16 \$550,000. Both appropriations were awarded from the Community Preservation Fund.

The Project Budget Elements were determined from an April 2016 cost estimate, overseen by consultant BH+A. Construction costs include the estimate for constructing pools, building and site work, as well as the contingency. Other expenses include the fees and expenses.

The Park and Recreation Commission, PPBC, Public Facilities-Construction Department, and Park and Recreation Department underwent a year-long feasibility study of Rosemary Pool and the site in 2013. The study was conducted by Weston & Sampson, with public input throughout the process. The Park and Recreation Commission voted to replace the outdoor pool on the Rosemary site, and renovate the building to accommodate year-round use, and recreate the parking areas to accommodate more vehicles, as well as year-round use. The Park and Recreation Commission's goal is to have the site be used year-round.

In Summer 2015, BH+A was hired to design the new facility. This process included public input on the options for the site and the final design choices are currently in the permitting stages with local and stage agencies. It is unknown if additional requirements made by any permitting agency will impact the project.

Rosemary Pool closed on August 26, 2016 and will not re-open. If this funding request is approved, the construction would begin in June 2017, with a goal of having a new facility for Summer 2018. If construction funds are not approved, there will be no outdoor public swimming facility. If the new facility was not built at the site, the Town would be required to remove the current structure and restore the banks on the lake, which has been estimated to cost about \$2 million.

Draining the lake for maintenance will no longer be needed with a new two pool option. The building will have bathhouse functions on the lower level. The second level will be operated separately, with a multi-purpose room for programs and office space for the Park and Recreation Department and the Health Department. The parking lot will require stormwater management improvements, create more parking opportunities than currently available, and be able to be used year-round. The entrance roadway will be resituated on the site, to decrease the slope. The portions of the facility that are related to outdoor recreation are eligible for funding consideration under the Community Preservation Act. These would include the pools, the site work and parking, and the functions of the building related to the outdoor pool. Indoor recreation opportunities are not eligible for CPA funding.

As this is written, the project is in the permitting stage with Conservation Commission and Planning Board.

Capital Project Request

Project Title: **Trail Improvement Project: Reservoir Trail**

Fiscal Year: **2018**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **Revised Request from the Prior CIP**

Department: **Park and Recreation**

Funding Source:

Partners: **Conservation, DPW, Town Manager**

Parameters	2018	2019	2020	2021	2022
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	Yes				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes				
18. Will any other department be required to provide assistance in order to complete the project?	Yes				

Primary Reason for the Request: **New function or service**

How was the Estimated Project Cost Determined: **Hired Consultant**

Estimated Project Cost: **\$925,000**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$825,000	\$825,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$40,000	\$40,000			
Technology Hardware/Software	\$0				
Other Expenses	\$60,000	\$60,000			
TOTAL	\$925,000	\$925,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Trail Improvement Project: Reservoir Trail

Fiscal Year:

2018

Project Description and Considerations

This project budget is based on an August 2016 estimate from BETA. The funding source for the well closing still needs to be determined, so that portion of the project is shown as "Other." Funding options are under discussion with DPW.

Funding was received in FY2014 for the design of the Reservoir Trail project, through CPA funds, and the contract for the design was awarded in October 2014 to BETA. The project has been permitted and received an Order of Conditions from the Needham Conservation Commission under the Massachusetts Wetlands Protection Act and the Needham Wetlands Protection Bylaw. The request for an amendment to the Special Permit for the Public Services Administration Building (PSAB) has been approved by the Needham Planning Board. Two public sessions were held during the design phase, and a presentation was made to the Needham Commission on Disabilities. The input from all sessions was incorporated into the design.

This request is for the construction funds to create a handicap accessible perimeter trail, with boardwalks, around the Needham Reservoir. The development of an accessible trail around one of the Town's important amenities - the Needham Reservoir - was a key priority identified in the Town's Trails Master Plan. It is an asset to the relatively new PSAB and intended improvements to the adjacent 470 Dedham Avenue. The Eastman Conservation Trail, recently rebuilt at the Newman School, is accessible but only available outside of school hours, so the Reservoir Trail will have more hours of use, plus have closer parking. The Reservoir Trail will also include assistance for visually impaired, and provide an accessible fishing dock.

The two decommissioned water supply wells are located within the trail area. The existing fence and concrete will be removed, the areas excavated and regraded.

In 1890, the Town of Needham acquired the property including and surrounding the Needham Reservoir for water supply purposes. Groundwater extraction wells operated on the property until the 1940's and the reservoir was decommissioned as a water supply source in 1995. The property is under the jurisdiction of the Board of Selectmen. Prior to the building of PSAB, the trail had minimal use, but with more open access, it has become a popular location for fishing and walking. The dirt road, in place to access the wells is eroding in places and impassable during wet conditions. The southerly section has inconsistent routes, partially due to wet areas, creating damage to the wetland resource areas. Public education will be added throughout the trail related to the history of the reservoir and the natural environment within which it exists.

The constructed trail will require regular maintenance, some of which can be handled through the Trails Steward program, with volunteers, or in some cases with the Parks and Forestry Division. These maintenance activities might require increases in the annual budget of the Division.

Capital Project Request

Project Title: **Boat Launch on Charles River**

Fiscal Year: **2019**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **Informational Only Details Incomplete**

Department: **Park and Recreation**

Funding Source: **Community Preservation Fund**

Partners: **Conservation Department, Town Manager**

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	Yes				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	Yes				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes				
18. Will any other department be required to provide assistance in order to complete the project?	Yes				

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost:

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$0	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Boat Launch on Charles River**

Fiscal Year:

2019

Project Description and Considerations

The Town of Needham is adjacent to a major state resource - the Charles River. It creates about 2/3rds of the Town's border, with the City of Newton, the City of Boston, the Town of Dedham, and the Town of Dover, our neighbors on the other side of the river.

CPC funds of \$30,000 have been awarded to design an improved boat launch into the Charles River on Town-owned property on South Street, near the intersection of Dedham Avenue, but we have not started the formal design process as this is written. One of the on-call engineer firms will be chosen to work with Park and Recreation/Conservation departments on this project. There is an existing unimproved launch for canoes and kayaks, with a circular driveway and parking for 10-12 vehicles. There is pedestrian access, only, to the river.

The intention is to keep the launch in its natural setting, but create a more consistent access on a pervious path, and possibly creating the ability for vehicles to back up to the launch area with their boats.

At a minimum, permits would be required from the Needham Conservation Commission.

A project estimate can be provided once the designer is able to provide options and the Town chooses a scope of work.

Capital Project Request

Project Title: **Rosemary Lake Camp Property and Trail**

Fiscal Year: **2019**

Purpose: **Design/Engineering**

Status: **Revised Request from the Prior CIP**

Department: **Park and Recreation**

Funding Source: **Community Preservation Fund**

Partners: **Conservation Department**

Classification: **Facility**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Estimated Project Cost: **\$250,000**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$250,000	\$250,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$250,000	\$250,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Rosemary Lake Camp Property and Trail

Fiscal Year:

2019

Project Description and Considerations

Two former CIP requests are being combined together into one request...the Rosemary Trail project and the Rosemary Camp Property buildings. This project is still under review for scope.

The Rosemary Trail project was initially developed within the Trails Master Plan and is the fourth of four major trail projects to be moved forward. The original scope and estimates was developed in 2008 by Beals+Thomas, and they updated the estimate in subsequent years. The scope has been altered to meet the current plans of the property. The entrance to the trail from the Rosemary parking lot will be repaired during the Rosemary Recreation Complex project. It is recommended that projects along the trail be combined into a group of projects for the Student Conservation Association, including rebuilding a bridge crossing the brook. The final project would involve improvements on the cart path to alleviate wet conditions, particularly when an emergency vehicle needs to access the property. The trail will not be ADA accessible.

The Rosemary Camp Property building project was holding a place in the event the summer program location at Ridge Hill was no longer available for use. Since that time, the Rosemary Recreation Complex project has moved forward and will have an indoor location for use by the summer program. Due to the on-going vandalism, it is now recommended that the shelter building and two latrines be demolished. In place of the shelter, an open air picnic shelter would be built, with picnic tables installed on the concrete base to minimize vandalism. This area would be available for use by trail walkers as well as any programs offered by Park and Recreation or other Needham organizations. Past vandalism has included use of flammable materials, a danger to nearby homes.

Permits would be required from the Conservation Commission for the trail work, and demolition permits would be required, as well as for the installation of a pre-fab shelter for the picnic area.

On-going maintenance can primarily be done by volunteers, with minor assistance from DPW Parks and Forestry.

Capital Project Request

Project Title: **Cricket Field Building Renovation**

Fiscal Year: **2020**

Purpose: **Design/Engineering**

Classification: **Building**

Status: **Revised Request from the Prior CIP**

Department: **Park and Recreation**

Funding Source: **General Fund**

Partners: **PPBC; Public Facilities-Construction; DPW**

Parameters	2020	2021	2022	2023	2024
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	Yes				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	Yes				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	Yes				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	Yes				

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$772,000**

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$154,000	\$154,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$618,000		\$618,000			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$772,000	\$154,000	\$618,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Cricket Field Building Renovation**

Fiscal Year: **2020**

Project Description and Considerations

Park and Recreation completed a feasibility study of the Cricket Field building with PPBC in March 2012. The study looked at (1) renovation of the building for current uses; (2) renovation of the building for year-round use; (3) construction of new building at same location; (4) construction of new building elsewhere on site. For the renovation options, code upgrades, including ADA, are included. Extensive work on the grounds is also required for accessibility. "Option 1 Modified" is used for the request, which is an update of the current layout for seasonal use only and a septic field. Option 1, without modifications, or a new modular building would be more than \$100,000 of additional costs. The design costs would also include a survey that is required for a building permit. The original estimate was created in 2012, with a 10% contingency. It is recommended to escalate the estimate by 5% annually, or review if a significant period of time passes. The numbers in this request have therefore been increased from the original estimate. The design/engineering costs were based on 20% of total project estimate.

The building is currently used for (a) Park and Recreation summer program; (b) Needham High Girls Soccer and Girls Lacrosse; (c) storage for Park and Recreation programs; and (d) storage for DPW Parks and Forestry. It is hoped that the building could be utilized for these purposes, and that public restrooms for those using the playgrounds or athletic fields would be available. The chosen option would also create an accessible building, and site work would add appropriate accessible parking. Approval of a new septic system as opposed to a sewer system would help reduce the cost of construction. The 1964 wood structure building is approximately 1,250 square feet. Without renovations, it will become more difficult to use it for the summer program, which would also be a loss of revenue of approximately \$30,000 as it isn't likely another site in Town would be available to accommodate the program. Donations have been made for other projects at the park, totaling about \$200,000. Those projects include the rebuilding of the athletic fields, addition of new playground equipment, and a bubbler and garden with park benches.

Any portion of the project related to outdoor recreation would be eligible for CPA funding, but indoor recreation is not eligible. Permits would be required from the Needham Health Department and the Planning Board. The costs do not include any unanticipated requirements of the permits. At some point, without renovation, the building will not be available for use by Park and Recreation for its summer program or by Needham High School Athletics. The loss of the summer program location would lead to a loss in revenue. Costs to use Cricket Field would increase for Needham High Athletics.

Currently, the building's restrooms are only used by Park and Recreation's summer program, as well as the Needham High teams. No other park user has access to the restrooms, so creating restrooms that are available to the park will increase the cost for cleaning by an outside firm.

Capital Project Request

Project Title: **Public Playgrounds** Fiscal Year: **2020**

Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Same Request from the Prior CIP**

Department: **Park and Recreation** Funding Source: **Community Preservation Fund**

Partners: **School Department**

Parameters	2020	2021	2022	2023	2024
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	Yes				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes				
18. Will any other department be required to provide assistance in order to complete the project?	Yes				

Primary Reason for the Request: **Public/employee health or safety**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **The project should reduce the operating expenses**

Total New FTE's: **0**

Estimated Project Cost: **\$600,000**

Project Budget Elements	2020	2021	2022	2023	2024
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$600,000				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$600,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Public Playgrounds**

Fiscal Year: **2020**

Project Description and Considerations

The Town of Needham has 19 public playground locations: Broadmeadow (2), Eliot (2), Hillside (2), Mitchell (1), Newman (3), Claxton, Cricket, DeFazio, Greene's, Mills, Perry, Riverside, Rosemary Pool, and Walker-Gordon.

Hillside and Mitchell have the oldest school-site playgrounds. The new school replacing Hillside will have new playground equipment installed as part of the project. Mitchell's equipment will be maintained until such time that the school is renovated or rebuilt. The Rosemary Pool equipment will be removed during construction and not replaced at this time.

Broadmeadow's Grade 1-5 and Kindergarten playgrounds were installed in 2002 and will likely need upgrades in upcoming years. Eliot's two playgrounds were installed in 2004 and appear to be in excellent condition. Newman's Grade 1-5 and Kindergarten playgrounds were installed in 2012 and are in excellent condition. The Preschool playground received a poured-in-place surface in 2013. Its equipment was originally purchased in 1998 and moved to the Newman site in 2004. It is in good condition, but will need some refreshing. An improvement recommended for Broadmeadow and Eliot would be the installation of poured-in-place pathways. Though the current wood fiber surfacing is considered ADA compliant, the MA Architectural Board may be creating a new ruling that will require other options for pathways. The addition of poured-in-place pathways reduces the wear and tear on the wood fiber surfacing, requiring less material to be installed a few times a year.

For the non-school playgrounds, all sites are in very good to excellent condition. Greene's Field's equipment was installed new in 2013, with a major donation from residents of over \$180,000. The Exchange Club has "adopted" DeFazio and Claxton, adding improvements over several years. Parent Talk has "adopted" Cricket, Perry and Mills, with new playgrounds installed between 2001-2007. Riverside received new equipment in 2007 as part of the nearby Charles River Landing project. Walker-Gordon was replaced in 2013 as part of the park reconstruction project. Cricket will have ADA improvements completed when the park building is renovated.

The school projects will require consultation with the School Department, insuring their educational goals are met with any new structures.

The estimate was made in-house, based on recent projects completed in Needham and informal discussions with playground and surfacing companies.

Capital Project Request

Project Title: **Public Playgrounds**

Fiscal Year: **2020**

Supplemental Information

PLAYGROUND	TYPE OF STRUCTURE	YEAR	ESTIMATED COST OF EQUIPMENT AT INSTALLATION	NOTES
Broadmeadow	Metal and plastic	2002	\$80,000	Fair/Good condition; company not responsive on repairs
Broadmeadow-Kindergarten	Metal and plastic	2002	<i>With above</i>	Fair/Good condition
Claxton	Metal and plastic	1994 2007	\$10,000 \$18,000	Excellent condition
Cricket	Metal and plastic	2005	\$40,000	Excellent condition
DeFazio	Metal and plastic; one wood house	1997-1999	\$23,000	Excellent condition; some older pieces from earlier renovations in good condition
Eliot	Metal and plastic	2004	\$80,000	Excellent condition
Eliot-Kindergarten	Metal and plastic	2004	<i>With above</i>	Excellent condition
Greene's	Metal and plastic	2013	\$280,000	Excellent condition
Hillside	Metal and plastic	1995 2011	\$40,000 \$30,000	Very Good condition
Hillside-Kindergarten	Metal and plastic; coated wood	2001	\$12,000	Good condition

Project Title: **Public Playgrounds**

Fiscal Year:

2020

Capital Project Request

Mills	Metal and plastic	2007	\$40,000	Excellent condition
Mitchell	Metal and plastic	1998	\$40,000	Good condition
Newman	Metal and plastic	2012	\$275,000	Excellent condition
Newman-Kindergarten	Metal and plastic	2012	(included in above cost)	Excellent condition
Newman-Preschool	Metal and plastic	1998-2004	\$25,000	Good condition
Rebecca Perry	Metal and plastic; wooden house	2001	\$40,000	Excellent condition
Riverside	Metal and plastic	2007	\$40,000	Excellent condition
Rosemary Pool	Metal and plastic	2006	\$8,000	Good condition
Walker-Gordon	Metal and plastic	2012	\$15,000	Excellent condition

Capital Project Request

2021

Fiscal Year:

Project Title: **Athletic Fields Master Plan**

Status: **Same Request from the Prior CIP**

Classification: **Land**

Purpose: **Long Range Plan/Study**

Funding Source: **Community Preservation Fund**

Department: **Park and Recreation**

Partners: **DPW Parks and Forestry Division**

Parameters	2021	2022	2023	2024	2025
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than five (5) years but less than eight (8) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$75,000**

Project Budget Elements	2021	2022	2023	2024	2025
Planning/Feasibility	\$75,000				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$75,000	\$75,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Athletic Fields Master Plan**

Fiscal Year:

2021

Project Description and Considerations

The Park and Recreation Commission has been working with user groups to determine how athletic fields are being used and how best to schedule the athletic fields to provide optimal use without jeopardizing the maintenance plan. The organizations and the Commission need to do some additional work together before the scope of a master plan can be created.

Renovations have occurred at several parks, and some school sites will be improved in upcoming years. The study would help the Commission determine whether new athletic fields are needed to accommodate the need and provide feasibility studies on possible locations for new athletic fields.

The ability for the Town to maintain current athletic facilities, along with any possible new facilities, would be included within the study.

This project may appropriate to submit for a warrant article as opposed to a capital request.

Capital Project Request

Project Title: **Improvements to Memorial Park Building and Grounds** Fiscal Year: **2018**

Purpose: **Construction** Status: **Informational Only Details Incomplete**

Department: **Memorial Park** Funding Source: **General Fund**

Partners: **Board of Selectmen, Park and Recreation Commission, and Town Departments**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	Yes
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **May increase annual operating expenses between \$25,001 and \$50,000**

Total New FTE's: **0.25**

Estimated Project Cost: **\$5,900,000**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$500,000				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$5,000,000				
Construction Management	\$100,000				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$200,000				
Technology Hardware/Software	\$25,000				
Other Expenses	\$75,000				
TOTAL	\$5,900,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Improvements to Memorial Park Building and Grounds**

Fiscal Year:

2018

Project Description and Considerations

This is a general submission which may be followed with additional information from the Trustees of Memorial Park, project partners, and Town staff.

The Memorial Park Building was included in the Townwide Facilities Study planning update completed in 2014. The study presumed a complete renovation of the current Memorial Park Building, which would make the building fully handicap accessible, and would be designed and constructed in accordance with the new building code. The facility would be part of an overall plan that enhances programs and promotes synergy among the other nearby Town facilities. The building would be seen as a service point for High School athletics and other community activities, while keeping the focus on the site and its history. The estimated project cost is \$5.9 million (2014). Depending on the actual design and amount of activity that would be generated at the new facility an increase in operating expenses is to be expected. However, it is still too early in the process to calculate an estimate of those costs.

A recent facility financing plan summary assumed that the project would be funded by a combination of General Fund debt (\$2-million), CPA funds, other one-time General Fund monies, and some limited outside resources, yet to be determined. The feasibility study for this project was funded at the 2016 Annual Town Meeting, and is under the charge of the PPBC.

Capital Project Request

Project Title: **RTS Property Improvements**

Fiscal Year: **2018**

Purpose: **Construction/Renovation**

Status: **Revised Request from the Prior CIP**

Department: **Public Works - RTS**

Funding Source: **Enterprise Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$523,100**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$513,100	\$290,000	\$103,100			\$120,000
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$10,000					
TOTAL	\$523,100	\$290,000	\$113,100	\$0	\$0	\$120,000

Capital Project Request

Project Title: **RTS Property Improvements**

Fiscal Year: **2018**

Project Description and Considerations

This article will be used to fund improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve the facility function.

FY18

Materials to organize the Materials Processing Area and Composting Area

The RTS receives and stores various construction materials both generated from Town projects and paying customers at its Materials Processing Area (MPA). In 2014 it was determined that the MPA was in need of better organization due to the inflow of various materials and its proximity to wetlands. Much of the material stored on site has become commingled and difficult to separate, resulting in materials that are difficult to reuse or market. Given that the Materials Processing Area is now accepting additional aggregate material and will be conducting an annual rock crushing operation, an opportunity exists to develop this area to better store, categorize and utilize materials in a manner that is conducive to limiting or negating adverse impacts to the adjacent wetlands. To bring better organization to the Materials Processing Area and ensure the operations do not adversely impact the wetlands, the RTS will need to purchase approximately 10,000 square feet of block face made up of interlocking precast concrete blocks that will be delivered and installed at the site in accordance with an engineering plan to create 10 material storage bins with dimensions of 25' wide x 30' deep x 10' tall.

The funding for FY 2018 has increased from the prior year's submission after the department solicited a revised quote this year.

If the seasonal storage is moved to the Materials Processing Area, the blocks are modular and can be disassembled and reassembled at a different location.

FY19

This is for the purchase and installation of 300 jersey barriers that will be used to create a barrier between the composting operation and the wetlands. This needs to be done in order for the Town to be compliant with the Negative Determination of Applicability from the Conservation Commission in 2014. The cost referenced is for the purchase of new jersey barriers and transportation. It is possible that the Town may be able to procure used jersey barriers at little or no cost but that will require the Town pay the cost of transportation, which is approximately \$10,000.

FY22

This is for the purchase and installation of two 18' x 10' panels to extend the existing scale which is 40 feet and insufficient to take the accurate weight of the Town's 100 yard open top containers and contractor's larger vehicles. Right now, the Town uses approximate values for these materials but the extended scale will accurately determine the weights of the materials being shipped out of or dropped off at the RTS. Additionally, the current scale is 9 years old as of 2016 and it requires annual maintenance due to excessive wear.

Capital Project Request

Project Title: **RTS Property Improvements**

Fiscal Year: **2018**

Supplemental Information

Future Projects

The Recycling and Transfer Station has grown organically over the years and currently includes seven separate buildings:

- Transfer station building with customer reception area has been abandoned and is currently being used as storage due to lack of ADA compliance, insufficient barrier to the transfer station, deteriorated bathroom facility and areas with mold.
- A new office trailer that is temporary in nature has been installed in front of the transfer station building. This is a temporary solution.
- 3-Bay garage used for surplus paint and equipment storage and Re-use-it area
- Employee break trailer with storage and restroom are not ADA compliant
- REX building garage with Superintendent office and restroom are not ADA compliant. It is not properly insulated or heated.
- Surplus paint reuse shed and hazardous waste locker
- 40 foot trailer for storage
- 12 foot trailer for storage

Some of the limitations of the current facility include:

- Superintendent's office is isolated from the day-to-day operations and staff activity, making supervision and oversight challenging
- No shower facilities on site for staff working in extremely dirty environment
- Limited secure storage for valuable inventory such as PAYT trash bags
- Employee lunch/break room is in donated second-hand trailer located in isolated area of facility

Looking to the future, in order to improve efficiency and oversight of operations, provide adequate working conditions, and provide secure storage, new quarters at the RTS are desperately needed. The new area would combine the functions of five separate storage buildings into one facility attached to the existing transfer station building. The new facility would include: customer service area, staff office, superintendent office, employee lunch/break room, meeting room, restroom, shower facilities, and secure storage area all in a single facility. The new facility would most likely be a three-story addition to the existing transfer station building consisting of secure storage and shower/locker room on the ground level, customer reception and office area on the first floor, and meeting room and employee break room on the second floor. A May 2014 Annual Town Meeting Warrant approved funding for a temporary office trailer to provide adequate customer service, office, and restroom facilities and to bring the superintendent's office into the main operations area. This trailer is intended to be temporary and will be situated so as not to interfere with potential transfer station expansion.

4. This project may have to go to the Planning Board for Site Plan Review and may be subject to Conservation Commission permitting requirements.
16. The scale is a below ground device and will permanently be installed at the RTS.
18. The Conservation Department will be required to provide assistance in order to complete the project.

Capital Project Request

Project Title: **Transfer Station Floor Replacement**

Fiscal Year: **2018**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **New Request**

Department: **Public Works - RTS**

Funding Source: **Enterprise Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$166,000**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$166,000	\$166,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$166,000	\$166,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Transfer Station Floor Replacement

Fiscal Year:

2018

Project Description and Considerations

The Municipal Solid Waste (MSW) transfer building was built in 1998. The concrete floor has not been replaced since it was constructed and it is in very poor condition. The current condition is the result of heavy equipment operating across the surface each working day since the building was constructed, which has slowly eroded the concrete and exposed rebar in many places. The protruding rebar is a safety hazard to both staff and residents dropping off trash on the MSW tip floor, as it could impale someone. Furthermore, the ruts in the concrete floor are a tripping hazard to both RTS staff and those in the building unloading trucks or personal vehicles.

Due to the existing poor condition of the concrete floor, it is recommended that the entire MSW tip floor be completely replaced. This will require the floor to be jackhammered, the existing rebar removed and the ground surface prepared for new rebar and concrete. The dimensions of the MSW transfer building floor are 40 feet by 56 feet, eight inches (approximately 2,260 square feet). The longer this project is delayed, the more dangerous the conditions will become. The floor was targeted for repair several years ago, however it was never replaced. It is past the point where the floor can be ground and coated with a layer of concrete.

It is important to note that the poor condition of the MSW tip floor is not the result of the failure of several of the roof purlins that occurred in the spring of 2016.

4. This project will require permitting by the Building Department.

15. The building is almost 20 years old and the concrete floor is well past its designed lifespan. Full replacement at this stage is necessary.

Capital Project Request

Project Title: **RTS Horizontal Grinder (Tracked)**

Fiscal Year: **2019**

Purpose: **Acquisition**

Classification: **Heavy Equipment**

Status: **Informational Only Details Incomplete**

Department: **Public Works - RTS**

Funding Source: **Enterprise Fund**

Partners:

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	Yes				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	Yes				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$819,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$0				
Construction Management	\$0				
Equipment	\$819,000	\$819,000			
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$819,000	\$819,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: RTS Horizontal Grinder (Tracked)

Fiscal Year: 2019

Project Description and Considerations

The RTS has had in its inventory a Vermeer horizontal grinder for more than 10 years. This grinder is unsafe, does not operate consistently and is slated to be disposed of given its condition.

To provide the staff with the necessary equipment to ensure seamless operations at the compost operation, a new tracked (not wheeled) horizontal grinder is necessary. The grinder will provide the staff the means to control the inflow of brush, limbs and logs which will provide for considerably more square footage by negating the need to store huge amounts of the aforementioned materials on site which take up lots of necessary space at the present time. Having a new grinder will allow these materials to be processed at least weekly, freeing up valuable space for the layout of more windrows. The new grinder will play a significant role in both the efficiency of increased productivity of operation.

The new grinder will also provide the necessary equipment in the event of a catastrophic wind or storm event. Should (or when) such an event occur in town, having a horizontal grinder on site that is sized to handle both the day to day operations of the compost area AND provide the processing power to handle copious amounts of local construction demolition from a catastrophic storm is prudent planning and will provide the Town flexibility to deal with this debris in a timely fashion.

The grinder will assist in the more efficient layout of the RTS' composting site. Having the grinder on site will allow for better control of incoming brush, limbs and logs and keep open and clear valuable square footage that can be used for the layout of additional compost windrows.

6 & 9. The costs to service the grinder are presently not in the budget.

Capital Project Request

Project Title: **RTS Stormwater Plan** Fiscal Year: **2019**

Purpose: **Construction/Renovation**
 Department: Public Works - RTS
 Partners: Conservation Commission

Classification: **Facility**

Status: **Revised Request from the Prior CIP**
 Funding Source: Enterprise Fund

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: Legal/regulatory requirement

How was the Estimated Project Cost Determined: **Hired Consultant**

Useful Life: Between eighteen (18) and twenty-five (25) years

Budget Impact: Negligible impact on the annual operating expenses less than \$5,000

Total New FTE's: 0

Estimated Project Cost: \$138,600

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$138,600	\$138,600			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$138,600	\$138,600	\$0	\$0	\$0

Project Title: **RTS Stormwater Plan**

Fiscal Year: **2019**

Capital Project Request

Project Description and Considerations

The Recycling and Transfer Station (RTS) composting operation is presently under a July 2014 Conservation Commission Negative Determination of Applicability (NDA). This NDA was put in place due as a result of adverse impacts to the wetlands from the compost operations. The NDA calls for the mitigation of potential stormwater issues at the site. At the present time, untreated stormwater runoff is entering a perennial stream that feeds the wetlands abutting the composting operations.

At the May 2016 Annual Town Meeting, funding was approved for the design phase of this project and budgetary numbers for the construction phase of this project will not be available for the FY 2018 Capital process. The funding for FY 2019 has increased from the prior year's submission because this request was pushed out a year.

In order to be compliant with the NDA this project will fund the following scope, including but not limited to:

- The construction of a sediment removal structure at the compost area
- A new detention basin at the base of the landfill that will control stormwater runoff from the Materials Processing Area and the road behind the Salt Shed
- The regrading of the materials processing area; this regrading will require all stormwater runoff to be shifted away from the wetlands
- The stormwater management collection system for the proposed paving of the road behind the Salt Shed;
- The drainage adjacent to the salt shed, and pending investigation determine a solution, and design if appropriate

4. This project will have to go to the Planning Board for Site Plan Review and will be subject to Conservation Commission permitting requirements.

Capital Project Request

Project Title: **Drain System Improvements - Water Quality (EPA)** Classification: **Infrastructure** Fiscal Year: **2018**

Purpose: **Construction** Status: **Revised Request from the Prior CIP**

Department: **Public Works - Drains** Funding Source: **Enterprise Fund**

Partners:

Parameters		Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?		No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?		No
3. Does the project support activities to produce new revenue for the Town?		No
4. Does this project require any permitting by any Town or State agency?		Yes
5. If funded, will additional permanent staff be required?		No
6. If funded, will the operating budget need to be increased to cover operating expenses?		No
7. If funded, will this project increase the operating expense for any other department?		No
8. If funded, will this project lower the requesting Department's operating costs?		No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?		No
10. If the project is NOT funded, will current Town revenue be reduced?		No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?		No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?		Yes
13. Is this a request in response to a Court, Federal, or State order?		No
14. Is this a request in response to a documented public health or safety condition?		No
15. Is this a request to improve or make repairs to extend the useful life of a building?		No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?		No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?		No
18. Will any other department be required to provide assistance in order to complete the project?		No

Primary Reason for the Request: **Legal/regulatory requirement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$3,768,000**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$118,000				
Land/ROW Acquisition	\$0	\$118,000			
Site Preparation	\$0				
Construction	\$3,650,000	\$2,400,000	\$250,000	\$1,000,000	
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$3,768,000	\$2,400,000	\$250,000	\$1,000,000	\$0

\$0

Capital Project Request

Project Title: **Drain System Improvements - Water Quality (EPA)**

Fiscal Year:

2018

Project Description and Considerations

The Town entered into a Memorandum of Understanding (MOU) with the Environmental Protection Agency (EPA) to commence a Town-wide investigation of stormwater discharge to address the discharge of pollutants through stormwater into the Charles River Basin and other water bodies. Incorporated into this plan are improvements to the Stormwater Drainage System to upgrade the quality of the water discharged into the Charles River in Needham. This request is to support action items identified in the MOU.

When the 2003 EPA National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit took effect, it incorporated several requirements identified in the MOU. There were a number of projects proposed to manage stormwater quality effectively. The second permit to be issued by the EPA was submitted in April 2016 and will take effect July 1, 2017. This request for funding increased from the previous year because during the design process, it was determined that the depth of the sediment that needs to be removed is greater than what was originally determined. This has increased the cubic yardage of sediment product that needs to be disposed.

FY18 - Rosemary Lake Sediment Removal - Construction \$2,400,000

FY19 - The Town Reservoir Sediment Removal - Design/Engineering \$118,000

FY20 - Action Items from Watershed Management Plan funded in FY15 Items TBD - Design and Construction \$250,000

FY21 - The Town Reservoir Sediment Removal - Construction \$1,000,000

4. Conservation Commission, State and Federal permitting may be required for dredging.

12. Yes, this a project for which an Initial Eligibility Project Application may be filed with the Community Preservation Committee.

Capital Project Request

Project Title: **Sewer Pump Station Improvements/Replacement** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP** Fiscal Year: **2018**

Purpose: **Construction** Funding Source: **Enterprise Fund**

Department: **Public Works - Sewer**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$4,935,500**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$531,000	\$91,000		\$95,000	\$345,000	
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$4,404,500	\$499,000		\$535,000		\$3,370,500
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$4,935,500	\$590,000	\$0	\$630,000	\$345,000	\$3,370,500

\$0

Capital Project Request

Project Title: Sewer Pump Station Improvements/Replacement

Fiscal Year: 2018

Project Description and Considerations

As part of the Wastewater System Master Plan, several of the wastewater pumping stations were evaluated to assess their physical condition and capacity, and to evaluate current and future flow projections. The Master Plan recommended that at least 7 of the 9 stations be upgraded.

Canister pump stations at Lake Drive, Cooks Bridge (Milo Circle), and Alden Rd are each either at or beyond their design life. Constant maintenance and emergency shutoffs occur more frequently and require greater amounts of personnel time and emergency funds to keep running.

Alden Road Pump Station was originally constructed in the mid-1950s as a pneumatic ejection station, and converted in the 1970s to a built in place wet well/dry well type station with vertical flooded suction sewage pumps. There are no alarms with the exception of a local red light alarm for high wet well level. The pump's outdated electrical control panels are located below grade level adjacent to the pumps, which if flooded, poses a severe threat to personnel as well as equipment. The station has heat, but no dehumidifier or ventilation. Problems have also occurred with roots and rags clogging pumps.

FY 18 Alden Rd - Design/Engineering and Construction \$590,000

FY19 No Funding Requested \$0

FY20 Lake Dr - Design/Engineering and Construction \$630,000

FY21 Cooks Bridge - Design/Engineering \$345,000

FY22 Cooks Bridge - Construction \$3,370,500

4. Conservation Commission permitting may be required for site work.

Capital Project Request

Project Title: **Sewer Main Extensions in Zone I and II**

Fiscal Year: **2019**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **Same Request from the Prior CIP**

Department: **Public Works - Sewer**

Funding Source: **Enterprise Fund**

Partners:

Parameters		2019	2020	2021	2022	2023
1.	Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2.	Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3.	Does the project support activities to produce new revenue for the Town?	No				
4.	Does this project require any permitting by any Town or State agency?	Yes				
5.	If funded, will additional permanent staff be required?	No				
6.	If funded, will the operating budget need to be increased to cover operating expenses?	No				
7.	If funded, will this project increase the operating expense for any other department?	No				
8.	If funded, will this project lower the requesting Department's operating costs?	No				
9.	If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10.	If the project is NOT funded, will current Town revenue be reduced?	No				
11.	Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12.	Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13.	Is this a request in response to a Court, Federal, or State order?	No				
14.	Is this a request in response to a documented public health or safety condition?	Yes				
15.	Is this a request to improve or make repairs to extend the useful life of a building?	No				
16.	Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17.	Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18.	Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Public/employee health or safety**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$510,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$510,000	\$510,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$510,000	\$510,000	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Sewer Main Extensions in Zone I and II

Fiscal Year: 2019

Project Description and Considerations

There are eight homes in Needham that need to be prioritized for sewer service connection because they are within Massachusetts Department of Environmental Protection's (MassDEP) Zone II areas. These homes are being looked at as part of a future sewer main extension/service connections project.

The Zone I and Zone II aquifer protection area for the Charles River Well No. 1 encompasses an area that includes private septic systems. Zone I, as defined by MassDEP includes land within the protective four hundred (400) foot radius around an existing or potential public water supply well or well field. Zone II includes the area of an aquifer that, given the most severe pumping and recharge conditions that can be realistically anticipated, would potentially be affected by nearby septic systems. It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. (Note: these private systems predate the Zone I and II requirements by MassDEP and Needham Zoning Bylaws, Section 3.4.6 (b)).

All three of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems. Extending the sewer main will enable access to homes within Zones I & II and reduce the risk of contamination.

The sewer main ends at 827 Charles River St., the sewer main extension would run from 828 Charles River St. to Winding River Rd. and extend 712 feet up Winding River Rd. The new sewer main will pick up 5 homes that are on septic, 4 of which are on Winding River Rd. These improvements would be subject to a betterment fee. This may also include the installation of an additional prefabricated sewer pump station for these locations.

Monies requested are based on 712 linear feet of 8" gravity sewer pipe installation at a cost of \$200 per linear foot, which includes the installation of five sewer manholes; the cost estimate for this station based on other similar projects is \$350,000; and design and engineering costs of 15% of total project. It is feasible that another option for this project exists in which gravity sewer may be run through easements, which may result in an overall decrease in the cost of this project.

FY19 Construction \$510,000

Additional operating budget funds will be required after this project is constructed in order to operate the new main which include electrical and maintenance costs of the pumps, mechanicals seals, valves, wet cleanings, and other maintenance costs. These costs are not anticipated to exceed \$1,000 in 2015 dollars.

4. Conservation Commission permitting may be required for site work; Board of Health permitting for septic system abandonment.

Capital Project Request

2019

Fiscal Year: 2019

Project Title: **Sewer Main Replacement**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **Revised Request from the Prior CIP**

Department: **Public Works - Sewer**

Funding Source: **Enterprise Fund**

Partners:

Parameters	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No	No	No	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No	No	No	No
3. Does the project support activities to produce new revenue for the Town?	No	No	No	No
4. Does this project require any permitting by any Town or State agency?	Yes	Yes	Yes	Yes
5. If funded, will additional permanent staff be required?	No	No	No	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No	No	No	No
7. If funded, will this project increase the operating expense for any other department?	No	No	No	No
8. If funded, will this project lower the requesting Department's operating costs?	No	No	No	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No	No	No	No
10. If the project is NOT funded, will current Town revenue be reduced?	No	No	No	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No	No	No	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No	No	No	No
13. Is this a request in response to a Court, Federal, or State order?	No	No	No	No
14. Is this a request in response to a documented public health or safety condition?	No	No	No	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No	No	No	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No	No	No	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No	No	No	No
18. Will any other department be required to provide assistance in order to complete the project?	No	No	No	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$600,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$100,000	\$100,000			
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$500,000	\$500,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$600,000	\$100,000	\$500,000	\$0	\$0

\$0

Capital Project Request

Project Title: **Sewer Main Replacement**

Fiscal Year:

2019

Project Description and Considerations

The Town of Needham completed its Facilities Master Plan in 2015. This plan and the subsequent DPW Feasibility Study has identified Parcel 74 on Greendale Ave. as a viable option for transition space and limited storage facility. In order to facilitate the construction of a building on this property, a new or relined sewer line will be necessary. Additionally, the existing sewer line has been determined to be in the process of deteriorating and in need of replacement.

This request is for replacing or relining 1,209 feet of 18 inch reinforced concrete pipe gravity sewer main running through Town property in the right of way from Greendale Ave. near Cheney St. towards Route 128. This is the total length of pipe that runs through the right of way to the first manhole on Rt. 128.

4. MWRA permitting may be required for repair work.

Capital Project Request

Fiscal Year: **2019**

Project Title: **Sewer Service Connections**

Status: **Revised Request from the Prior CIP**

Classification: **Infrastructure**

Purpose: **Construction**

Funding Source: **Enterprise Fund**

Department: **Public Works - Sewer**

Partners:

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$200,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$200,000	\$50,000	\$50,000	\$50,000	\$50,000
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$200,000	\$50,000	\$50,000	\$50,000	\$50,000

\$0

Capital Project Request

Project Title: **Sewer Service Connections**

Fiscal Year: **2019**

Project Description and Considerations

There are 108 homes with access to sewer that are not connected to the Town Sewer System because they have chosen not to. The purpose of this request is to provide the lateral sewer line from the sewer main to the property line so that homeowners can connect should they choose to or should their septic system fail. The lateral sewer line is to be added prior (at least one year) to a road reconstruction/paving project. The cost for these service installations are typically not included in road construction estimates. In the case of Chapter 90 Projects, these are not considered as a reimbursement eligible expense. These expenses are included in local road reconstruction estimates. There is a corresponding request for water service connections.

There was no funding request for FY 2017 so the division can re-evaluate the intention of this article. The funding for this article was initially requested for the installation of sewer lateral lines in roads that were anticipated to be renovated in the near future, so should the homeowner choose to convert to Town sewer, the lateral would be available.

The reality has been that when homeowners have decided to go onto Town sewer it has been when their house has been sold, and with the high number of tear downs, the location of the sewer laterals the Town has installed are no longer beneficial for the new house's layout.

Past projects

2013 - installed 14 new sewer laterals (408.5' of pipe)

2014 - No appropriation was requested

2015 - installed sewer laterals as part of the Great Plain Ave sewer replacement

2016 - installed sewer laterals as part of the Great Plain Ave sewer replacement

Capital Project Request

Project Title: **Sewer System Inflow & Infiltration Removal**

Fiscal Year: **2019**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **Informational Only Details Incomplete**

Department: **Public Works - Sewer**

Funding Source: **Enterprise Fund**

Partners:

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Estimated Project Cost: **\$2,000,000**

Useful Life:

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$0				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$2,000,000	\$500,000	\$500,000	\$500,000	\$500,000
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$2,000,000	\$500,000	\$500,000	\$500,000	\$500,000

\$0

Capital Project Request

Project Title: **Sewer System Inflow & Infiltration Removal**

Fiscal Year: **2019**

Project Description and Considerations

In 2016, the Town completed a study that identified areas of inflow and infiltration removal in areas around town over the next ten years. This study was delayed due to low ground water that made I/I harder to detect. The Town has been undertaking I/I projects using funding from developments. In future years, funding from private developments will be appropriated at Town Meeting.

The Town of Needham, along with numerous other communities, is under Administrative Orders from the Department of Environmental Protection (DEP) to identify and remove Infiltration and Inflow (I/I) in existing sewer systems.

Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures that need to be repaired.

Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. The inflow removal program is being presented separately from the infiltration removal program. Much of this work could address inflow to include extending or expanding the storm drain system to accept groundwater from household sump pumps. Needham's most significant problem is believed to be from these private sources. The program will initiate with an education and information campaign to inform and prepare the homeowners as to the nature of the problem. The cost impacts to the community, the legal implications, the likely solutions, the responsibilities of the homeowner, and the potential enforcement actions by the Town, the Massachusetts Water Resource Authority (MWRA), the DEP and the Environmental Protection Agency (EPA) will need to be communicated. The preliminary engineering will likely take the form of smoke testing and flooded dye testing to determine any direct or indirect interconnections between the sewer and the storm drain system. It also includes a door-to-door investigation of households to determine where violations are occurring. Typical violations include, but are not limited to, sump pumps or open clean-outs where non-sanitary flow is discharging directly to the sewer system as well as foundation drains, yard drains, roof leaders and other cross connections.

Cost Benefits of Program:

- Failure to do any mitigation in any of the MWRA communities will cause the overall costs for all participating communities to increase.
- The failure of the Town of Needham to address its I/I while neighboring communities reduce theirs will increase the percentage of the cost to Needham.
- When Needham decreases its I/I the same or better than other participating communities its percentage of cost will stay the same or decrease.
- The Town must keep up with its I/I mitigation in order to avoid disproportionate increases in cost and to comply with MassDEP's administrative order.

Future Projects:

Subarea	Total Pipe Length (feet)	Total Inspection Length (feet)	Inspection Length with Infiltration (feet)	Observed Infiltration (gpd)	Observed Infiltration Remaining (gpd)	Construction Cost to Remove Observed Infiltration	\$/gal
15	32,068	3,760	1,519	41,940	41,940	28,575.00	\$ 0.68
12	27,673	4,177	1,061	38,232	38,232	34,200.00	\$ 0.89
13	21,108	3,116	863	10,440	10,440	14,800.00	\$ 1.42
30	8,925	898	114	360	360	550.00	\$ 1.53
29	5,033	1,188	492	7,920	7,920	17,050.00	\$ 2.15
26	34,183	2,445	811	14,220	14,220	31,475.00	\$ 2.21
28	4,829	563	91	2,880	2,880	6,700.00	\$ 2.33
21	54,696	12,008	5,270	56,520	56,520	139,116.75	\$ 2.46
3	3,340	1,219	627	10,440	10,440	27,550.00	\$ 2.64
22	69,844	19,912	5,214	73,620	73,620	220,962.00	\$ 3.00

Capital Project Request

Project Title: **Water Distribution System Improvements** Fiscal Year: **2018**

Purpose: **Construction/Renovation** Status: **Revised Request from the Prior CIP**

Department: **Public Works - Water** Funding Source: **Enterprise Fund**

Partners:

Classification: **Infrastructure**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	Yes
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled Replacement**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$6,813,750**

Project Budget Elements	2018	2019	2020	2021	2022
Planning/Feasibility	\$0				
Design/Engineering	\$593,500	\$460,000	\$36,500	\$97,000	
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$6,220,250	\$801,750	\$4,975,000		\$443,500
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$6,813,750	\$1,261,750	\$4,975,000	\$97,000	\$443,500

\$0

Capital Project Request

Fiscal Year: **2018**

Project Title: **Water Distribution System Improvements**

Project Description and Considerations

The Town is combining all Water Distribution System Improvements into one article for simplicity. All requests made under this article will be to make improvements to the distribution system for water.

Water System Rehabilitation

Under the Water System Rehabilitation Program, the Town's water infrastructure is continually analyzed to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement, and portions of the Town's water infrastructure are 75+ years old and approaching the end of their useful life. A diligent rehabilitation program encompassing maintenance, repair, and replacement ensures a continual supply of water to the public. The Department of Public Works prioritizes replacement of water pipes based upon pipe condition, water break history, and adequacy of water flow to fire hydrants.

Country Way may require a permit from the Conservation Commission.

FY18

Alfreton Rd./Highland Ave to Webster St. (145 unlined) – Construction
 Bennington St./High St. to Concord St. (unlined) – Construction
 \$399,750

Country Way/ Replace (1,200 lf) of 8" main (unlined) -Construction
 \$402,000

FY19

Thorpe Rd./Webster St. to End New 8" (330lf) - Eng. & Design
 Mills Rd./ Sachem Rd. to Davenport Ave. New 8" (500lf) - Eng. & Design
 Mayo Ave. Harris Ave. to Great Plain Ave. New 8" (1060lf) - Eng. & Design
 \$36,500

FY20

Thorpe Rd./ Mills Rd./ Mayo Ave. (unlined) -Construction
 Mills Rd./ Sachem Rd. to Davenport Ave. New 8" (500lf) -Construction
 Mayo Ave. Harris Ave. to Great Plain Ave. New 8" (1060lf) (unlined) -Construction
 \$375,000

FY21

Kingsbury St. / Oakland Ave. to Webster St. 8" (1,500lf) - Eng. & Design
 Oakland Ave. / May St. to Highland Ave. 8" (1,100lf) - Eng. & Design
 \$97,000

Capital Project Request

Project Title: **Water Distribution System Improvements**

Fiscal Year: **2018**

Supplemental Information

FY22

Kingsbury St. / Oakland Ave. to Webster St. 8"Ø1,500lf) - Construction
Oakland Ave. / May St. to Highland Ave. 8"Ø1,1,00lf) (unlined) - Construction
\$443,500

Water Main Replacement

This request is to replace a total of 11,500 linear feet of 14" water main. The existing water line dates from 1936-1939 and is cast iron with bitumastic or coal tar liner. The water quality in areas serviced by this line is a concern as the lining of these pipes breaks down over time causing discoloration in the water. In 2008, the Town began addressing areas serviced by this type of piping which at the time was approximately 19,000 linear feet extending from Charles River Street, to Pine Street, to Central Avenue, to Marked Tree Road and a section between Oak Street and Chestnut Street, to School Street.

In 2008, the 14" water main was relined from the Charles River Water Treatment Facility to Grove Street. In 2010, the second phase of this project replaced the 14" water main with a new 16" water main extending from Grove Street to Central Avenue.

The current project will be replacing a 14" water main with a new 16" water main. This project includes replacing the pipe and reconstructing the road.

FY 2018

Funding is proposed for the design of the remaining 11,500 linear feet of water main to be replaced from the intersection of Pine St. to Marked Tree Rd. to Oak St., and Maple St.

Engineering and Design: \$460,000

FY 2020

Funding is proposed for the construction of the remaining water main.

Construction: \$4,600,000

The cost has increased from last years submission because the Engineering division has reviewed current construction and engineering costs and has determined that the original amount submitted is insufficient to complete the project as specified. The cost is \$400/linear foot of pipe with a 20% contingency in FY 2016 dollars. This cost was determined based on recent bids. The engineering is estimated to be 10% of the cost, which is lower than our normal engineering estimate percentage due to the simplicity of the project.

State Revolving Fund Funding may be available for this project and the Public Works Department will submit an application.

Future Projects:

Fenton Rd./West St. to Pershing Rd. - Engineering & Design
Greenough St./Pine Grove St. to Avery St. - Engineering & Design
Pine Grove St., Hillside Ave. to exiting 8" - Engineering & Design
Tower Ave./Greendale Ave. to Lexington Ave. 800 lf of 12" - Engineering & Design
Rosemary Pond Water Main Replacement - Engineering & Design

4. Conservation Commission permitting may be required for site work.

Capital Project Request

2018

Fiscal Year:

Project Title: **Water Service Connections**

Purpose: **Construction/Renovation**

Department: Public Works - Water

Partners:

Classification: **Infrastructure**

Status:

Funding Source: Enterprise Fund

Revised Request from the Prior CIP

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Obsolete/non-functioning**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$1,000,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$1,000,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$1,000,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000

\$0

Capital Project Request

Project Title: **Water Service Connections**

Fiscal Year:

2018

Project Description and Considerations

The primary purpose of this program is to remove old iron pipe water services that may contain lead from the water distribution system. Old water services are to be replaced prior (at least one year) to a road reconstruction/paving project. If this project is not funded it leaves an element of the subsurface infrastructure susceptible to failure before the useful life of the reconstructed roadway has been realized. System wide, there are approximately 1,220 services that still need to be replaced in the system. Approximately 70 services should be able to be replaced with the FY18 budget request of \$200,000.

Year Number of Services Replaced

- CY 2007 - 126
- CY 2008 - 170
- CY 2009 - 174
- CY 2010 - 17
- CY 2011 - 145
- CY 2012 - 102
- CY 2013 - 200
- CY 2014 - 152
- CY 2015 - 110

14. Old iron pipe water services in the water distribution system that may contain lead is a documented public health or safety condition.

Capital Project Request

Fiscal Year: **2018**

Project Title: **Specialty Equipment**

Purpose: **Acquisition**

Department: Public Works - Water

Partners:

Classification: **Heavy Equipment**

Status: **New Request**

Funding Source: Enterprise Fund

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Scheduled replacement**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eight (8) and twelve (12) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$132,000**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$132,000	\$132,000				
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$132,000	\$132,000	\$0	\$0	\$0	\$0

Capital Project Request

Project Title: **Specialty Equipment**

Fiscal Year:

2018

Project Description and Considerations

Updated quotes were obtained from a few vendors and the cost has increased from the initial submission to reflect those updated quotes.

Unit # 115 (2008)

The current excavator is used for the water/sewer/drains projects including responding to emergencies. At the time of the requested replacement, the excavator will be 10 years old. The replacement will be an upgraded version of the existing piece of equipment which will make operations more efficient as it will be able to:

- Dig deeper to replace catch basins
- Dig whole bottom length of water pipe at proper depth because of a longer reach
- Install larger precast structures and move steel road plates because of an increased lifting power

The current piece of equipment is used in the repair and replacement of water mains and services, drain manholes and drain pipe, and sewer manholes and sewer pipe. The anticipated make and model will be a Komatsu PC88MR-10 or equivalent with a 12 year lifecycle.

Capital Project Request

Project Title: **Birds Hill Water Tank Improvements**

Fiscal Year: **2019**

Purpose: **Design/Engineering**

Classification: **Infrastructure**

Status: **Same Request from the Prior CIP**

Department: **Public Works - Water**

Funding Source: **Enterprise Fund**

Partners:

Parameters	2019	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No				
3. Does the project support activities to produce new revenue for the Town?	No				
4. Does this project require any permitting by any Town or State agency?	No				
5. If funded, will additional permanent staff be required?	No				
6. If funded, will the operating budget need to be increased to cover operating expenses?	No				
7. If funded, will this project increase the operating expense for any other department?	No				
8. If funded, will this project lower the requesting Department's operating costs?	No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No				
10. If the project is NOT funded, will current Town revenue be reduced?	No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No				
13. Is this a request in response to a Court, Federal, or State order?	No				
14. Is this a request in response to a documented public health or safety condition?	No				
15. Is this a request to improve or make repairs to extend the useful life of a building?	No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No				
18. Will any other department be required to provide assistance in order to complete the project?	No				

Primary Reason for the Request: **Public/employee health or safety**

How was the Estimated Project Cost Determined: **Industry References**

Useful Life: **Between eighteen (18) and twenty-five (25) years**

Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**

Total New FTE's: **0**

Estimated Project Cost: **\$200,000**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$25,000	\$25,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$175,000	\$175,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$200,000	\$200,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: **Birds Hill Water Tank Improvements**

Fiscal Year: **2019**

Project Description and Considerations

The purpose of the water tank located at Birds Hill is to maintain proper operating system pressure of the Town's municipal water distribution system. The method used for filling the tank is through one central pipe at the bottom of the tank. This is also how the tank is drained. The movement of water is all predominately at the bottom of the tank. This tank has a 100 ft. diameter foundation and it is 45 ft. in elevation. The intention of this request is to install a mixing valve that will move water throughout the tank. This movement will assist in maintaining chlorine levels inside the tank. This will assure improved water quality.

16. The mixing valve will be permanently installed at the Birds Hill Tank.

Capital Project Request

Project Title: **Fire Flow Improvements Design & Construction**

Fiscal Year: **2019**

Purpose: **Construction**

Classification: **Infrastructure**

Status: **Informational Only Details Incomplete**

Department: **Public Works - Water**

Funding Source: **Enterprise Fund**

Partners:

Parameters	2020	2021	2022	2023
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?				No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?				No
3. Does the project support activities to produce new revenue for the Town?				No
4. Does this project require any permitting by any Town or State agency?				No
5. If funded, will additional permanent staff be required?				No
6. If funded, will the operating budget need to be increased to cover operating expenses?				No
7. If funded, will this project increase the operating expense for any other department?				No
8. If funded, will this project lower the requesting Department's operating costs?				No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?				No
10. If the project is NOT funded, will current Town revenue be reduced?				No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?				No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?				No
13. Is this a request in response to a Court, Federal, or State order?				
14. Is this a request in response to a documented public health or safety condition?				
15. Is this a request to improve or make repairs to extend the useful life of a building?				No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?				
18. Will any other department be required to provide assistance in order to complete the project?				No

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined:

Useful Life: **More than twenty-five (25) years**

Budget Impact:

Total New FTE's: **0**

Estimated Project Cost: **\$2,840,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$522,000				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$2,318,000	\$2,318,000			
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$2,840,000	\$522,000	\$2,318,000	\$0	\$0

\$0

Capital Project Request

Project Title: **Fire Flow Improvements Design & Construction**

Fiscal Year: **2019**

Project Description and Considerations

The Department is requesting a feasibility study to investigate possible options to increase water pressure in the Tower Hill and Birds Hill areas. The goal is to create a high pressure zone in those two areas, potentially supplied by water booster stations. The FY19 and FY20 estimates provided are based upon a water system report and may be altered pending the completion of a feasibility study.

In 2016, the Town received funding for a feasibility study .

Capital Project Request

Fiscal Year: **2019**

Project Title: **Water Supply Development**

Status: **Informational Only Details Incomplete**

Classification: **Infrastructure**

Purpose: **Construction**

Funding Source: **Enterprise Fund**

Department: **Public Works - Water**

Partners:

Parameters		2021	2022	2023
1.	Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No		
2.	Are there recommendations or costs identified by other departments which are NOT factored into the request?	No		
3.	Does the project support activities to produce new revenue for the Town?	No		
4.	Does this project require any permitting by any Town or State agency?	Yes		
5.	If funded, will additional permanent staff be required?	No		
6.	If funded, will the operating budget need to be increased to cover operating expenses?			
7.	If funded, will this project increase the operating expense for any other department?	No		
8.	If funded, will this project lower the requesting Department's operating costs?	No		
9.	If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No		
10.	If the project is NOT funded, will current Town revenue be reduced?	No		
11.	Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No		
12.	Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No		
13.	Is this a request in response to a Court, Federal, or State order?	No		
14.	Is this a request in response to a documented public health or safety condition?	No		
15.	Is this a request to improve or make repairs to extend the useful life of a building?	No		
16.	Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes		
17.	Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No		
18.	Will any other department be required to provide assistance in order to complete the project?	No		

Primary Reason for the Request: **Operational efficiency**

How was the Estimated Project Cost Determined: **In-House Estimate**

Useful Life: **More than twenty-five (25) years**

Budget Impact:

Total New FTE's: **0**

Estimated Project Cost: **\$3,160,000**

Project Budget Elements	2019	2020	2021	2022	2023
Planning/Feasibility	\$0				
Design/Engineering	\$460,000				
Land/ROW Acquisition	\$0				
Site Preparation	\$0				
Construction	\$2,700,000		\$2,700,000		
Construction Management	\$0				
Equipment	\$0				
Furniture, Fixtures, and Equipment	\$0				
Technology Hardware/Software	\$0				
Other Expenses	\$0				
TOTAL	\$3,160,000	\$460,000	\$2,700,000	\$0	\$0

\$0

Capital Project Request

Project Title: **Water Supply Development**

Fiscal Year: **2019**

Project Description and Considerations

Proposed Well #4

This project would be to install a fourth well at the Charles River Well Field that will provide for reliability and redundancy while other wells are taken offline for routine maintenance or repair. The Well Field is presently at full capacity when all three wells are operational. This fourth well would allow the Town to continue to operate to its full capacity. Previously, when the system was at peak demand and a well was taken offline, the Town had to rely on MWRA water source to meet its daily demands. This redundant well will allow the Town to be more independent even during routine maintenance periods. A feasibility study was completed in FY 2011 that supports the development of an additional well in the Town's existing well field.

Capital Project Request

2020

Fiscal Year:

Status: **Same Request from the Prior CIP**
Funding Source: Enterprise Fund

Project Title: **Water Distribution Study**

Purpose: **Design/Engineering**

Department: Public Works - Water

Partners:

Classification: **Infrastructure**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: Public/employee health or safety

How was the Estimated Project Cost Determined: In-House Estimate

Useful Life: Between eighteen (18) and twenty-five (25) years

Budget Impact: Negligible impact on the annual operating expenses less than \$5,000

Total New FTE's: 0

Estimated Project Cost: \$200,000

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$200,000	\$200,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$200,000	\$200,000	\$0	\$0	\$0	\$0

Capital Project Request

Project Title: **Water Distribution Study**

Fiscal Year:

2020

Project Description and Considerations

This study will provide for an analysis of the Town's water infrastructure. This is partially driven by recommendations that were made in the current master plan that was conducted in 1998, which is coming to its completion of recommendations. Since the last time that the Town studied its water infrastructure, Needham Crossing, formally the 128 Business Park, has significantly changed with more dense development and different industries and uses.

This request is for developing a new 20 year master plan that will include the following:

- Conduct a thorough asset inventory of the system and conduct a hydraulic analysis.
- Prioritize the rehabilitation and replacement of the asset information related to condition, performance, replacement values, failure modes, probability of failure, and criticality.
- Develop a new 20 year forecast for projected growth.
- Developing an annual estimate of needed reserves and an annual budget.
- Implement the asset management plan.
- Review and revise the current asset management plan.

The purpose of this water distribution study is to evaluate the existing water distribution system and determine the following:

- Identify any deficiencies that exist and determine what repairs should be made to ensure that the system can provide the required flow and pressure.
- Using growth projections from the Town's planning and zoning maps, estimate where and when future growth will occur.
- Using these growth projections, analyze the water system and determine the capacity of the water source, storage, and distribution system.
- Once the capacity is determined, decisions can be made as to when aspects of the water system should be further developed, upsized, or replaced.

Major Public Facilities

Section 4

**Significant Public Facilities
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Significant Public Facilities

Needham High School

609 Webster Street

Assessed Value: \$48,715,600
 Parcel ID: Map 226 Block 10
 Lot Size: 14 acres
 Original Construction: 1930; reconstruction in 2008

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
High School Classroom Expansion & Other Improvements	9,400,000					9,400,000
Athletic Locker Room Improvements						-
Boiler Replacement						-
Chiller Replacement						-
High School Gym Improvements						-
Totals	9,400,000	-	-	-	-	9,400,000

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
A Gym Upgrade					130,557	130,557
Cafeteria Expansion				2,100,000		2,100,000
Class Room Expansion				150,000		150,000
Class Room Expansion Alternatives Study					65,000	65,000
Program Room Configuration Changes			200,000			200,000
Totals	-	-	200,000	2,250,000	195,557	2,645,557

Other significant maintenance/repairs in Calendar Year 2016 included:

- Converted metal halide lighting in the B gym to LED
- Replaced BMS server and reloaded information onto new server
- Installed a concrete slab in the bus loop by the building's main entrance
- Changed out kitchen grease traps
- Installed a new water bottle station in the café
- Repaired boilers 2 and 4
- Installed, maintained, and removed rental chiller
- Installed a wall and door in room 211
- Repaired boiler #4 insulation
- Installed shelves in work shop

- Repaired shingles on roof of C building
- Repaired uninvents in room 909, 910, and 807
- Repaired roof leak in room 909
- Insulated pipes for roof top HVAC units
- Repaired broken valve system in mixing valve
- Programming support for intranet capability to reprogram RTUs
- Replaced water damaged dry wall

Other significant maintenance/repairs in Calendar Year 2015 included:

- Repaired parking pole lights
- Painted balconies on the back side of the building
- Repaired lighting in the gym
- Subdivided and improved rooms 707 and 728, including painting, repairing leaks, and installing clocks, phones, Intercoms, and folding wall
- Retrofitted exterior lighting to LED lighting
- Repointed and sealed the grand stairwell
- Replaced the emergency phone and repaired the emergency lights, installed hoistway door restrictors and replaced missing hand rail
- Replaced the sprinkler elbow and reset the system
- Cleaned all parts and assembled motor for overhaul blower
- Replaced combustion heads on all four boilers
- Replaced #5 circulating pump
- Repaired boilers #2 and #3
- Disconnected and relocated kitchen ice maker in the Athletics Department, reworked electrical for both the ice maker and the Athletics Department
- Troubleshoot and tuned boilers
- Painted balconies on the back side of the school
- Repaired phones in multiple rooms
- Repaired motor
- Shut down and winterized the chiller
- Grinded down wall for monument plaque
- Replaced shingles on the roof of C building
- Removed interior wall in room 608
- Repaired six parking lot lights, one small pole light, and one walk way light
- Repaired damaged guard rail
- Installed electrical service for new drying cabinet in the Graphic Arts Room
- Repaired RTU-9
- Replaced combustion heads and swirlers on boilers 1, 2, 3, and 4

- Moved light bank and relocated outlets, cable, and other devices to install folding wall
- Installed two fountains with bottle filling stations

Other significant maintenance/repairs in Calendar Year 2014 included:

- Mounted a 4'x6' plaque in main lobby
- Replaced broken lights in A gym
- Installed crash bars on doors to the auditorium
- Created new reception desk in front lobby
- Upgraded the CCTV monitoring system
- Power washed and re-pointed exterior
- Installed electric univent in room 602
- Replaced the gas fired domestic hot water heater
- Installed carpet in the lobby area
- Replaced outside stairway with new concrete stairs
- Upgraded heating controls on boilers
- Installed two dietic entrematic devices on two door openers in order to make door #1 and #12 handicap accessible
- Repaired flooring and replaced built in carpet entry mat in A Gym and B Gym
- Repurposed room 101 to be a robotics lab

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired exterior doors and upgraded hardware on doors
- Installed analog cameras in loading dock area and kitchen
- Replaced damaged gutters and downspout on the front and rear of the building
- Repaired bleachers in A gym to make operational
- Installed new heaters on the chiller
- Cleaned and sealed the stone work on the walls in the main lobby
- Repaired all pole lights and walkway lights in the parking lot
- Built two separate office spaces within the Guidance Suite
- Refinished floors in A gym and band room
- Converted copy room into the a new conference room
- Duct cleaning in the C, D, and E buildings
- Poured new concrete on 9 ramps and installed new detectable warnings
- Replaced circulating pump in boiler room
- Installed access control on door 15
- Replaced flooring in room 608 and 608A

Other significant maintenance/repairs in Calendar Year 2012 included:

- Cleaned duct work in buildings A & B
- Cleaned condenser coils
- Repaired chiller
- Replaced elevator piston in center connector lobby elevator
- Repaired 13 exterior lights by the parking lot
- Replaced and epoxied capstones on bottom wall, middle wall, and top wall
- Repaired existing free standing interlocking block wall at the main entrance
- Repairs to walk way
- Repaired AAB ramp on Webster Street side, installed concrete pads for benches, and repaired two drains on the center connector
- Repaired A Gym bleacher arm that failed
- Replaced bad condenser fan motors in 2 units in the auditorium
- Replaced tandem compressors for circuit #1 in RTU-6
- Relined parking lot on Webster Street side
- Repaired pipe handrail and stairwell on main staircase on Highland Ave. side
- Replaced cracked stone treads on main staircase on Highland Ave. side
- Installed washer and dryer in gym storage room
- Installed new manual winches on main basketball backboards

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Replace C building roof
- Weeded & mulched entire landscape on the Webster Street side.
- Refinished floor in A Gym and Band Space
- Repaired fence that was damaged during winter storm
- Repaired block wall in front of grand staircase
- Painted exterior awning to cafeteria
- Repaired several exterior lights
- Reconfigured stairway in hallway near B gym
- Installed modine heater in space between location of domestic hot water heater and A gym
- Installed lighting display for athletics display case

Other significant maintenance/repairs in Calendar Year 2010 included:

- Weeded & mulched entire landscape on the Webster Street side.
- Rebuilt circulation pump # 6
- Roof repairs C Building
- Replaced heating coils in multiple rooms and spaces

- Refinished floors in A gym and B gym
- Repainted traffic markings and installed signs
- Installed handicapped signs where required
- Insulated interior walls of Athletic Suite

Other significant maintenance/repairs in Calendar Year 2009 included:

- Upgraded Building Management Software and server, to improve energy efficiency
- Reprogrammed heating and cooling system to stagger start during morning start up, reducing load on energy grid
- Removed 13 univents, reinsulated, reflashed, replastered and reinstalled
- Replaced the control drive for the supply fan on RTU 4
- Replaced the control drive for the return fan on RTU 15
- Installed Lutron exterior lighting system to reduce energy consumption
- Enrolled emergency generator in Demand Response program
- Provided power and electrical outlets for wood shop
- Provided additional electrical outlets and for new school store
- Add additional electrical outlets in Art room to accommodate potting wheels
- Installed chair rails in nurses office
- Excavated trenches along sidewalks of plaza and installed 1 ½" trap rock improve drainage and prevent erosion
- Refinished floor in the A Gym
- Roof repairs

William F Pollard Middle School

200 Harris Avenue

Assessed Value: \$19,981,400
 Parcel ID: Map 35 Block 1
 Lot Size: 26.57 acres
 Original Construction: 1957; reconstruction in 1992; modular classrooms installed in 2002

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Bathroom Improvements	650,000					650,000
Blue & Green Gym Upgrades	45,000	754,610	30,000			829,610
Locker Room Retrofit				61,232	316,875	378,107
Totals	695,000	754,610	30,000	61,232		1,857,717

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Boiler Replacement	55,000	800,000				855,000
Telephone System		53,000				53,000
Locker Replacement					41,157	41,157
Totals	55,000	853,000	-	-	41,157	949,157

Other significant maintenance/repairs in Calendar Year 2016 included:

- Reconfigured main office and media center, including installing a new wall, installing a 4 receptacle, installing 3 sprinklers, installing 5 strobes, terminating 28 new data drops, and changing extensions
- Relocated aiphone
- Repaired dry wall throughout building
- Repaired damaged section of sidewalk in the main entrance
- Repaired leaking pipe in kitchen
- Replaced VFD drive and control board in circulation pump
- Painted new walls
- Replaced and installed new blinds
- Replaced display screen and gaskets on boiler #3
- Repaired exterior side panels on modular units
- Repaired boilers #1 and #2
- Repainted and repaired wall in kitchen

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced lights in gym with LED high bay lights
- Removed and replaced 452 lockers

- Repaired broken lighting
- Installed 3 additional spot lights in the auditorium
- Completed asbestos monitoring and air sampling, as well as asbestos abatement and tile replacement
- Removed and replaced heating and AC systems in rooms 278 and 281
- Replaced a sprinkler head and a sprinkler feeder pipe
- Painted the back wall of the auditorium
- Performed cleaning of ductwork in HVAC system
- Fixed heat exchange problem
- Conducted asbestos abatement and tile replacement on the floor
- Disconnected 16 electrical floor mounted boxes and replaced breaker #14
- Painted the bare concrete areas of the Auditorium floor
- Painted the exterior wood trim on the front of the school
- Removed and replaced heating and air conditioning systems

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed new countertops and cabinets in room 208
- Removed asbestos flooring and replaced with new tile flooring
- Installed two door access control systems
- Replaced handrail near loading dock
- Pressure washed the north exterior wall of the modular classrooms
- Converted exterior flood lights from HID lights to LED lights
- Replaced four exhaust fans
- Installed and programmed a new Master Clock System
- Constructed wall and installed new door in order to form an additional classroom in room 212
- Replaced tile flooring in room 100
- Connected two domestic hot water pumps to the building automation and time scheduling system

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced air handling units and exhaust fans
- Replaced sump pumps
- Repaired boiler #2
- Repaired intercom system and bells
- Replaced phone system
- Painted walls in Blue Gym and Green Gym
- Converted room 227 into two separate rooms
- Installed insulation in both gyms
- Repaired rubber flooring in both gyms
- Repaired wall padding in both gyms

- Replaced all rear outdoor light poles with new induction lighting
- Replaced all water cooler fountains
- Repaired sidewalk and walkway

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed new sink in classroom 210
- Converted classroom 210 to an engineering classroom
- Installed Sentricon termite control
- Upgraded kitchen from pneumatic to electronic heating control
- Retrofitted heat valves in 12 office areas
- Restored phone service to the modular classrooms
- Converted bathrooms in modular classrooms to standard fixtures
- Repaired boiler (section replacement)
- Installed motion sensors
- Installed new sink faucets in girls' restroom
- Removed and replaced urinals in boys' restroom
- Installed drain piping for 4 new serving tables
- Replaced 3 exterior light pole ballasts and lamps
- Installed boosters for fire alarm panel
- Replaced carpet in classrooms 227 and 132 with VCT
- Installed 2 new coils in café UV's
- Removed wall dividers in blue gym and replaced with flexible partitions in both blue & green gym
- Installed new sinks, drain lines, faucets, and water lines in classroom 251
- Restored modular classroom M6 and M7 back to original condition prior to Newman at Pollard

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Abated asbestos flooring and installed new tile
- Installed new front sign
- Repaired several exterior lights
- Installed split air conditioning system in room 209
- replaced Victaulic couplings with welded pipe over Boiler #1 and Boiler #2
- Installed drain, water feed, sink, and fixtures in room 288 for new science classroom
- Rekeyed interior of building
- Installed insulation on roof drains

Other significant maintenance/repairs in Calendar Year 2010 included:

- Replaced the skirt under the modular classrooms
- Reactivated AHU-5
- Installed sink and extended water and drain service for room 286
- Installed motion light switches in all rest rooms, storage areas and small meeting rooms
- Asbestos abatement in various areas
- Stripped and reconstructed girls bathroom
- Rebuilt heating circulator pump
- Replaced heating circulator pump
- Interior painting

Other significant maintenance/repairs in Calendar Year 2009 included:

- Converted classroom to science room, installing counter, sink and extending water and drain service
- Converted Art classroom to Wood Working classroom, upgrading electrical service and installed counters and cabinets
- Asbestos abatement in rooms 260 and 200 (Administrative Offices)
- Carpet installed in rooms 260 and 200 (Administrative Offices)
- Remove VCT tile and installed cushioned flooring in the weight room
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Cleaned all duct work
- Painted a number of corridors, bathrooms and boys locker room
- Replaced all exterior doors and locks
- Refinished Auditorium Stage floor
- Roof repairs

Newman Elementary School

1155 Central Avenue

Assessed Value: \$28,810,100
 Parcel ID: Map 216 Block 21
 Lot Size: 60.7 acres
 Original Constructions: 1961 as a Junior High School; reopened in 1993 as an Elementary School; major systems upgrade in 2012

Identified Future Capital Projects Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Preschool Playground		60,000				60,000
						-
Totals	-	60,000	-	-	-	60,000

Other significant maintenance/repairs in Calendar Year 2016 included:

- Disassemble and reconnect boiler stacks
- Repaired door that was not closing properly
- Repaired heat in the gym
- Replaced multiple broken windows
- Repaired breaker in the gym power panel
- Repaired ERU 11 and ERU 6
- Repaired parking lot light pole
- Installed additional bookshelves in room 110
- Replaced floor tiles in hallway as needed

Other significant maintenance/repairs in Calendar Year 2015 included:

- Installed programmable time clock
- Fixed lights on the canopy over the entrance to the school
- Replaced lights in gym with LED high bay lights
- Repaired ramp and stairs leading to the courtyard
- Repaired drain system for the two Camus boilers
- Reattached and better secured shelving unit in room 222
- Removed, repaired, and reinstalled pumps

- Repaired Newman control
- Replaced combustion air actuator on domestic PVI hot water heater and replaced amplifier

Other significant maintenance/repairs in Calendar Year 2014 included:

- Connected domestic hot water pumps to the building automation system

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced floor in the media center
- Installed new condensing unit for the science center animal room
- Secured the window curtain on the bridge

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repair windows in classrooms 118 and 219
- Repaired pole lights in the parking lot
- Replaced damaged angle on the elevator car

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Refinished gym floor

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed new AC compressor in the administration area.
- Replaced 3 sections in boiler # 1 & 3 sections in boiler #2
- Cleaned all sections in boiler #1 & #2
- Refinished the floor in the gym
- Interior painting
- Installed domestic hot water pump
- Replaced solid gym divider with flexible divider
- Replaced shaft and bearing in fan room # 5
- Continued evaluation of 10,000 gallon underground storage tank and surrounding soils

Other significant maintenance/repairs in Calendar Year 2009 included:

- Painted hallways, stairwells, and band room
- Evaluated 10,000 gallon underground oil storage tank and surrounding soils
- Refinished Gym and Auditorium Stage floor
- Installed new HVAC control compressor
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Replace 28' of 8" steam pipe between the east wing and west wing

- Replace sidewalk due to steam pipe project
- Replaced 6 boiler sections in the number two boiler
- Installed new steamer and kettle in kitchen
- Roof repairs

Mitchell Elementary School

187 Brookline Street

Assessed Value: \$8,286,600
 Parcel ID: Map 56 Block 1
 Lot Size: 12.47 acres
 Original Construction: 1951; addition constructed in 1968

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
New Facility (Pending for 2025)						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Modular Classrooms		2,729,276				2,729,276
						-
Totals	-	2,729,276	-	-	-	2,729,276

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired steam valve and replaced temperature sensor in boiler #1
- Installed new shades
- Repaired bathroom stall
- Repaired roof leaks
- Replaced new motor in boiler
- Installed start capacitors on air conditioner
- Repaired broken window

Other significant maintenance/repairs in Calendar Year 2015 included:

- Painted the front, left side, and rear of the school
- Repaired windows in lobby
- Repaired air conditioning unit
- Repaired steam weld
- Conducted asbestos abatement
- Replaced batteries and booster for the fire alarm as well as signal service

Other significant maintenance/repairs in Calendar Year 2014 included:

- Performed cleaning of ductwork in HVAC system
- Upgraded electrical wiring and panel in the kitchen and wired new range and steamer

- Installed new fence in courtyard

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired granite steps at main entrance
- Installed occupancy sensors in all bathrooms
- Installed new induction lights in the parking lot
- Installed new awning over rear door
- Painted all door frames and hallways
- Asbestos abatement and re-insulation
- Boiler room upgrade
- Removed oil fired domestic hot water heater and replaced with natural gas fired unit
- Converted boiler burners to natural gas units

Other significant maintenance/repairs in Calendar Year 2012 included:

- Grouped exterior lights together
- Installed induction lights in place of existing wall packs
- Replaced motors on boiler room exhaust fan
- Installed new grease trap in kitchen
- Replaced doors and changed out locks
- Painted exterior of school
- Completed exhaust fan work and oil containment work
- Replaced 13 exterior windows in the gym

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Refinished wood floors in gym and cafeteria
- Installed lighting motion sensors throughout the entire building
- Weeded and mulched
- Replaced louvers and installed cages on exterior of building

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed motion detector light switches in all bathrooms, storage rooms and small meeting rooms
- Repaired stairs in the kindergarten area
- Refinished the floors in gym, cafeteria and stage
- Interior painting
- Added additional graphics to the Building Management System

Other significant maintenance/repairs in Calendar Year 2009 included:

- Installed new electrical service for new kitchen refrigerator and freezer
- Replaced boiler number two
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Asbestos abatement in eleven classrooms and school administration area
- Installed VCT tile in all abated areas
- Installed twelve low flow toilets (MWRA Grant)
- Cleaned all duct work
- Replaced electrical service from building to parking lot lights
- Refinished Cafeteria, Stage and Gym floors
- Painted two class rooms, principles office, nurses office and stage ceiling
- Installed covers over AC units for the winter
- Converted pneumatic heating controls to digital controls and added to Building Management System

Hillside Elementary School

28 Glen Gary Road

Assessed Value: \$78,406,200
 Parcel ID: Map 102 Block 1
 Lot Size: 24.6 acres
 Original Construction: 1960; addition constructed in 1968; modular classrooms installed in 1996

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Hillside School as Swing Space				100,000	2,607,400	2,707,400
Totals	-	-	-	100,000		2,707,400

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
Totals	-	-	-	-	-	-

Central Avenue Elementary School (Hillside Replacement)

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Walking Trails	210,000					210,000
Totals	210,000	-	-	-		210,000

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Land Acquisition - 609 Central Avenue					762,500	762,500
Land Acquisition - Owens Farm				7,000,000		7,000,000
Outside Play Area					250,000	250,000
New Elementary School		650,000		45,000	57,542,500	58,237,500
Totals	-	650,000	-	7,045,000	58,555,000	66,250,000

Other significant maintenance/repairs in Calendar Year 2016 included:

- Cleared blockage in boiler
- Repaired and replaced windows
- Repaired electrical controller for boiler
- Repaired outdoor lighting near playground
- Converted lighting in gym to LED

- Conducted mold testing
- Installed new air conditioning units
- Repaired PA speakers

Other significant maintenance/repairs in Calendar Year 2015 included:

- Installed Lexan guards on railings to both the gym and cafeteria to close gaps in stairwell
- Installed a dedicated circuit for the special education classroom
- Installed insulated shades in all classrooms
- Repaired the flooring in the portable's boys' bathroom
- Repaired a steam leak on the boiler system
- Repaired a water main break
- Conducted asbestos abatement
- Installed insulated shades in Rooms 10 and 10A
- Repaired piping and put the systems back together for both boilers and condensate system; tuned and tested fire boilers

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired boiler #1 in order to bring back online
- Replace floor tiles in modular classrooms and hallway
- Installed single door access control system

Other significant maintenance/repairs in Calendar Year 2013 included

- Installed Lexan guards on railings to close gaps in stairwell
- Removed existing carpet and installed VCT flooring in Kindergarten classroom
- Upgraded the boiler room
- Installed fob access system on exterior door
- Replaced outdoor lights with induction lighting and LED lighting

Other significant maintenance/repairs in Calendar Year 2012 included

- Replaced all window AC units with Energy Star Rated units
- Replaced pump and did oil containment work
- Replaced flooring

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Replaced domestic hot water heater
- Installed storage area in gym/auditorium on stage
- Weeded and mulched
- Replaced grease trap in cafeteria kitchen
- Rebuilt steam traps throughout the school

- Installed lighting motion sensors throughout the entire building
- Refinished gym wood flooring

Other significant maintenance/repairs in Calendar Year 2010 included:

- Converted pneumatic HV control system to digital HV control system and added to the Building Management System (stimulus funding)
- Replaced heating coil in cafeteria air handling unit
- Replaced heating coil in room 10
- Refinished gym floor
- Install new bathroom stalls in three girls bathrooms and 3 boys bathrooms
- Refurbished flag pole
- Replaced two condensate pumps
- Cleaned duct work

Other significant maintenance/repairs in Calendar Year 2009 included:

- Removed and replaced decks and stairs for modular class rooms
- Replaced main water valve and secondary hot and cold water valves
- Replace four large exhaust fans
- Installed two AC's, including electrical service
- Replaced all faucet fixtures in bathrooms and class rooms
- Installed second Rentar Fuel Catalyst to reduce oil consumption
- Painted interior fire doors, interior door casings, selected hallway areas
- Refinished Gym floor
- Replaced light lenses
- Replaced bathroom stalls in one bathroom
- Replaced exterior doors
- Installed fence around dumpsters
- Caulked all exterior openings and AC units
- Installed covers over AC units for winter

Broadmeadow Elementary School

120 Broad Meadow Road

Assessed Value: \$13,193,900
 Parcel ID: Map 13 Block 3
 Lot Size: 11.2 acres
 Original Construction: 1951; reconstruction and addition in 2002

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Facility Assessment*		42,583				42,583
Totals	-	42,583	-	-		42,583

*multiple facilities the amount is a portion of the total

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Upgraded intercom system to comply with ALICE
- Installed Smartboards in various classrooms
- Installed new supplying motor in RTU 1
- Repaired broken window
- Replaced circulator pumps
- Removed damaged light pole

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced combustion chamber on RTU 3
- Repaired elevator by installing a new electronic door and repairing heat detector in hoist way on elevator
- Performed cleaning of ductwork in HVAC system
- Retrofitted exterior lighting to LED lighting
- Replaced lights in gym with LED high bay lights
- Replaced the top pipe on the fence around the garden

Other significant maintenance/repairs in Calendar Year 2014 included:

- Created a reception area desk in the ETC office
- Installed two door access control systems
- Replaced the ignition controls on two boilers

- Upgraded interior lighting – replaced all standard switches with sensor/motion detection switches
- Installed a new exhaust fan in kindergarten room
- Retro- commissioned the HVAC system
- Removed and replaced floor tiles in the main lobby area

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed occupancy sensors in all bathrooms
- Installed airphone system on exterior door
- Replaced flooring in hallways and various classrooms

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed LED bulbs in performance center and hallway
- Replaced water temperature sensor in generator room
- Installed 42 new clocks and new master unit
- Installed new airphone system
- Installed new exhaust fans on the roof
- Replaced flooring in music room
- Installed new diffuser in room 113
- Replaced condenser fans on RTU 4

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Replaced two compressors in RTU 3
- Replaced mixed air damper in RTU 5
- Replaced main breaker in RTU 2
- Repaired fence that was damaged during winter storm
- Replaced flooring in entrance way, performance, and rooms 4, 35, and 36
- Repaired several exterior lights
- Weeded and mulched

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed main compressor in RTU 3
- Replaced the flooring in rooms 55, 56, 60, 61 and the cafeteria
- Cleaned entire air handling system (duct cleaning)
- Refinished gym floor and stairs in Performance Center
- Replaced three circulator pumps for the domestic hot water system
- Interior painting

Other significant maintenance/repairs in Calendar Year 2009 included:

- Install split AC unit in head end room
- Replaced the motor, for the supply fan on RTU 2
- Painted selected hallway areas and bathrooms
- Replaced three way heat valve in Air Handling ceiling unit in gym

John Eliot Elementary School

135 Wellesley Avenue

Assessed Value: \$11,798,700
 Parcel ID: Map 91 Block 19
 Lot Size: 7.9 acres
 Original Construction: 1955; replaced in 2004

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Facility Assessment*		42,582				42,582
Totals	-	42,582	-	-		42,582

*multiple facilities the amount is a portion of the total

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Installed an additional aiphone
- Replaced various broken windows
- Repaired lighting in auditorium
- Replaced electronic lighting control panel in mechanical room
- Installed new actuators in RTU1
- Installed a new supply motor for RTU3
- Repaired air conditioning system for IT server equipment
- Repaired intercom

Other significant maintenance/repairs in Calendar Year 2015 included:

- Retrofitted exterior lighting to LED lighting
- Replaced lights in gym with LED high bay lights
- Installed compressor for RTU 1
- Repaired ballast and lamps in four parking lot pole lights and three walkway lights
- Repaired air conditioning circuit for RTU 1 and RTU 2
- Investigated Cold Room

Other significant maintenance/repairs in Calendar Year 2014 included:

- Replaced motor on the ductless split unit
- Replaced fence along the driveway
- Wired and programmed the boiler controls for better energy efficiency
- Installed two door access control systems
- Repaired boiler #2 to bring back online

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced expansion tank for the domestic boiler
- Replaced flooring in hallways
- Replaced exterior lighting control panel

Other significant maintenance/repairs in Calendar Year 2012 included

- Installed airphone system on main entrance
- Replaced/repaired flooring in hallways
- Installed padding behind basketball nets

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Weeded and mulched
- Repaired fence that was damaged during winter storm
- Repair several exterior lights
- Replaced actuator and fixed damper in RTU 3
- Cleaned duct work

Other significant maintenance/repairs in Calendar Year 2010 included:

- Replaced all the seals in boiler #1
- Repaired marnolium flooring in the cafeteria and lobby area.
- Refinished gym and stage floors
- Replaced main breaker in electrical room
- Repainted traffic markings

Other significant maintenance/repairs in Calendar Year 2009 included:

- Replaced the control drive for the supply fan for RTU 3
- Repaired flooring in Performance Center

High Rock School

77 Sylvan Road

Assessed Value: \$13,863,900
 Parcel ID: Map 133 Block 41
 Lot Size: 8.75 acres
 Original Constructions: 1955; reconstruction and addition in 2009

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Terminate and certify data lines
- Install module for boiler #3
- Installed new actuator and software for air conditioning unit
- Installed compressor in air conditioning unit
- Installed a new waterless urinal

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced damaged pole light
- Converted parking lot lighting to LED lighting
- Repaired John Deere tractor

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed guardrails and new fencing in upper parking lot
- Performed cleaning of ductwork in the HVAC system
- Replaced controller on boiler #1

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced cracked glass over main entrance door
- Installed new aluminum fence

- Repaired all outdoor lights

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repaired 6 pole lights in the upper parking lot
- Relined parking lot

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Repair several exterior lights
- Weeded and mulched
- Refinished wood floor on stage
- Repaired fence that was damaged during winter storm
- Repaired domestic hot water heater

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2009 included:

- Installed a 2.34 KW Solar Array

Emery Grover

1330 Highland Avenue

Assessed Value: \$2,204,700
 Parcel ID: Map 53 Block 2
 Lot Size: 1.06 acres
 Finished Square Feet: 14,742
 Original Construction: 1898

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Renovate/Reconstruct Facility			1,605,200	13,089,300		14,694,500
Window Partial Replacement#		309,000				309,000
Roof Replacement#					159,035	159,035
Totals	-	309,000	1,605,200	13,089,300		15,162,535

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
School Administration Building Study	30,000					30,000
Underground Oil Tank Removal & Replacement				73,000		73,000
						-
Totals	30,000	-	-	73,000	-	103,000

Other significant maintenance/repairs in Calendar Year 2016 included:

- Applied surface preparation to back wall in production center
- Replaced charcoal canister in fan system
- Installed a wall to separate payroll office into two sections
- Repaired broken cover to light fixture

Other significant maintenance/repairs in Calendar Year 2015 included:

- Repaired roof, including numerous leaks in roof
- Abated stair treads and replaced with new treads
- Removed underground storage tank
- Installed new above ground double walled tank
- Moved temporary fuel tanks to the right of present location
- Patched the cement on exterior side stairs
- Conducted asbestos abatement

Other significant maintenance/repairs in Calendar Year 2014 included:

- Painted hallways and offices on both floors
- Replaced fencing and gate around dumpster in the parking lot
- Replaced stair treads on interior stairways

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed insulation in the attic
- Installed awning over door entrance
- Replaced deteriorated metal cornices on roof
- Repaired brick archways on building

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed new indoor and outdoor units for heat pump system and adjusted system for dehumidification

Other significant maintenance/repairs in Calendar Year 2011 included:

- Reconstructed bathroom in basement
- Repaired to gutters and downspouts
- Removed all knob and tube wiring
- Removed finish floor, wall panels, and sub floor in ETC. Insulated walls, installed wall panels and sub floor, and finished floor.

Other significant maintenance/repairs in Calendar Year 2010 included:

- Asbestos abatement in several areas
- Installed rug in all abated areas (Administrative Areas)
- Removed and replaced floor and build outs along exterior foundation wall of ETC office
- Install vapor barrier throughout ETC office, insulated and reconstructed build outs along foundation walls
- Repoint bricks around the ETC office
- Repair and replace the gutters and down spouts on the north side of the building
- Installed new handrails in entrance
- Repainted traffic markings

Other significant maintenance/repairs in Calendar Year 2009 included:

- Asbestos abatement in several areas
- Installed rug in all abated areas (Administrative Areas)
- Exterior Painting
- Painted selected interior spaces
- Install covers over all AC's which cannot be removed
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Upgraded electrical service in the production center

Town Hall

1471 Highland Avenue

Assessed Value: \$10,363,100
 Parcel ID: Map 51 Block 1
 Lot Size: 1.23 acres
 Original Construction: 1902; reconstruction and addition in 2011

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Town Common Redesign		600,300				600,300
						-
Totals	-	600,300	-	-	-	600,300

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired columns
- Repaired handicap accessible ramp
- Replaced the DAU
- Replaced steel hand rail and replaced missing steel grate
- Install outdoor electrical receptacle in the Needham bank parking lot
- Repaired elevator
- Repaired door
- Repaired broken roll up window in Town Manager’s office
- Removed fir flooring in the small office
- Repaired windows

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced door

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired the Voltape Bird Control System on the roof
- Repaired and repainted columns in Powers Hall auditorium

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired automatic temperature controls

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Put back in service October 2011

Other significant maintenance/repairs in Calendar Year 2010 included:

- Taken out of service February 2010

Department of Public Works/Operations

470 Dedham Avenue

Assessed Value: \$3,106,400 (DPW Building)
 Parcel ID: Map 302 Block 5
 Lot Size: 17.7 acres
 Original Constructions: 1960; addition in 1966

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Boiler Replacement#		400,000				400,000
Facility Improvements (Pending Results of Study)				2,950,000		2,950,000
Fuel Island Relocation	1,320,000					1,320,000
Seasonal Storage Facility @ RTS	550,000	6,310,000				6,860,000
Totals	1,870,000	6,710,000	-	2,950,000		11,530,000

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
DPW/Public Services Administration Building Location Feasibility Study*				20,000		20,000
Facility Improvements Garage Bays	40,000	1,100,000				1,140,000
Fuel Island Relocation					131,000	131,000
Garage Lift		110,000				110,000
Totals	40,000	1,210,000	-	20,000	131,000	1,401,000

*multiple facilities the amount is a portion of the total

Other significant maintenance/repairs in Calendar Year 2016 included:

- Removed asbestos in the garage and repaired asbestos containing pipe and insulation
- Replaced rotted pipes in garage
- Reattached exhaust heat pipe
- Install electric baseboard heat and wall thermostat

Other significant maintenance/repairs in Calendar Year 2015 included:

- Installed lighting in sidewalk bays
- Repaired boiler
- Replaced stay bolts
- Removed asbestos on insulation from the piping for the modine heater over the generator area in the garage
- Changed the door and frame for door #2
- Reinstalled insulation and exterior metal sheeting on the boiler

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed new shower valves in men's restroom
- Installed a new door to the garage office
- Replaced VFD in boiler motor
- Added additional lighting hardware outside of building

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired block column which was damaged
- Replaced expansion tank #2 in boiler room

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repaired and re-tubed boiler in boiler room
- Replaced expansion tank #1 in boiler room
- Changed cores on office doors on second floor

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Repaired exterior brick
- Repaired boiler
- Glazed and painted exterior of windows
- Reconfigured building to storage space

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed additional exterior back lot lighting for DPW employees
- Contracted with utility to have natural gas main brought to Water Building and DPW
- Converted oil fired burner to natural gas fired burner
- Clean out oil water separator at the DPW building
- Install new down spouts at Water Building
- Installed two urinals and flushometers in the Water Building
- Install new furnace at the Charles River Water Treatment Plant

Other significant maintenance/repairs in Calendar Year 2009 included:

- Repaired main boiler vessel
- Replace HVAC control compressor
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Constructed Men's and Women's bathrooms in Water Building
- Installed new high efficiency propane heating system in Water Building
- Install water meter test bench in St. Mary's Pump Station

Public Services Administration Building

500 Dedham Avenue

Assessed Value: \$5,827,200
 Parcel ID: Map 302 Block 3
 Lot Size: 2.67 acres
 Original Constructions: 2009

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
DPW/Public Services Administration Building Location Feasibility Study*				20,000		20,000
						-
Totals	-	-	-	20,000	-	20,000

*multiple facilities the amount is a portion of the total

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the front door
- Repaired leaking ceiling tile

Other significant maintenance/repairs in Calendar Year 2015 included:

- Converted exterior lighting to LED lighting
- Repaired Schweiss Doors
- Removed and replaced Seimens soft start and reprogrammed all safety settings for the fire alarm

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired seams in the linoleum flooring in the hallways
- Performed cleaning of ductwork in the HVAC system

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Repainted office spaces for new occupants

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Recycling & Transfer Station

1407 Central Avenue

Assessed Value: \$3,965,200
 Parcel ID: Map 308 Block 2
 Lot Size: 22 acres
 Original Construction: 1988

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Facility Upgrades and Improvements	290,000	113,100			120,000	523,100
Stormwater Plan		138,600				138,600
Transfer Station Building Tipping Floor Replacement	166,000					166,000
						-
Totals	456,000	251,700	-	-		827,700

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Facility Upgrades and Improvements					68,000	68,000
Message Board			30,000			30,000
Soil Remediation	400,000					400,000
Stormwater Plan					50,000	50,000
Transfer Station Office Trailer			75,779			75,779
Totals	400,000	-	105,779	-	118,000	623,779

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the roof of the 3 bay garage
- Installed roof purlins in the 3 bay garage and the tipping floor
- Replaced faulty steel gussets for the tilt floor
- Rehung and secured sprinklers pipe
- Disconnected and removed overhead lights in tipping floor
- Installed electrical power to new town sign
- Repaired the heat in the employee trailer
- Replaced the compressor in the air conditioner
- Connected plumbing services for the RTS trailer
- Installed LED lights inside transfer station
- Installed new faucets

Other significant maintenance/repairs in Calendar Year 2015 included:

- Removed and replaced 3' of sheetrock and insulation in all office and bathroom areas

Other significant maintenance/repairs in Calendar Year 2014 included:

- Replaced eight roof mounted exhaust fans
- Replaced all exterior lights with induction lighting in order to be more energy efficient
- Re-lamped all interior lights

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced flooring in the main office
- Repaired track on overhead door #2
- Repaired center column

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed steel barricade for the electrical switches in the garage
- Repaired damaged conduit
- Evaluated all overhead doors

Other significant maintenance/repairs in Calendar Year 2011 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed AC in Superintendents office
- Repaired service power to overhead door
- Replaced overhead doors

Salt Shed

1407 Central Avenue

Assessed Value: \$1,811,800
Parcel ID: Map 308 Block 2
Lot Size: 22 acres
Original Construction: 2013

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired overhead door

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Morse-Bradley House/Ridge Hill

461-463 Charles River Street

Assessed Value: \$3,030,000
 Parcel ID: Map 306 Block 1
 Lot Size: 223.1 acres
 Original Construction: 1907 and 1929

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the fascia, soffit, and gutter
- Removed asbestos in the main house
- Installed electric supplemental heat in the basement of the main house

Other significant maintenance/repairs in Calendar Year 2015 included:

- Repaired slate roof
- Installed six LED high bay lights
- Replaced all fixtures

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired two broken windows
- Constructed two kiosks

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired damaged roof on the garage

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Installed alarm system
- Installed downspouts and drains

Other significant maintenance/repairs in Calendar Year 2010 included:

- Install 5/8" AC plywood to protect hard wood floors
- Winterized Plumbing
- Install new downspouts

Public Safety Buildings **88 Chestnut Street/99 School Street/707 Highland Avenue**

Assessed Value: \$3,408,800 (88 Chestnut Street/99 School Street)
 \$1,708,800 (707 Highland Ave)
 Parcel ID: Map 47 Block 56 (88 Chestnut Street)
 Map 70 Block 5 (707 Highland Avenue)
 Lot Size: 1.04 acres (88 Chestnut Street/99 School Street)
 1 acre (707 Highland Avenue)
 Original Construction: 1931 (88 Chestnut Street/99 School Street); renovation in 1989
 1906 (707 Highland Avenue)

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Public Safety Building Replacement	2,350,000	42,425,000				44,775,000
Fire Station 2 Replacement	1,125,000	17,275,000				18,400,000
						-
Totals	3,475,000	59,700,000	-	-		63,175,000

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Underground Storage Tank Removal		28,500				28,500
Fire Station 2 Feasibility Study				50,000		50,000
Public Safety Building Replacement Feasibility					90,000	90,000
Totals	-	28,500	-	50,000	90,000	168,500

Other significant maintenance/repairs in Calendar Year 2016 included:

- Fire Station 1 & Police Station
 - Installed split AC, including new electrical service
 - Repaired multiple lights
 - Repaired light pole
 - Repaired garage door
- Fire Station 2
 - Repaired hanging heaters in apparatus bay
 - Repaired boiler

Other significant maintenance/repairs in Calendar Year 2015 included:

- Fire Station 1 & Police Station
 - Repaired leaks on walls and roof defects
 - Installed karnak and mesh to leave watertight
 - Installed two additional recessed lighting in the police server room
 - Inspected and repaired all masonry joints and flashing around chimney
 - Installed a split unit in the Server Room at the Police Station and completed electrical work
- Fire station 2
 - Replaced batteries, pull stations, and flow and pressure switch for sprinkler system

Other significant maintenance/repairs in Calendar Year 2014 included:

- Fire Station 1 & Police Station
 - Removed and replaced five shower stalls on the fire side.
 - Repaired boiler in order to bring it back online
- Fire station 2
 - Replaced fourteen windows on the second floor level as part of the energy efficiency upgrades

Other significant maintenance/repairs in Calendar Year 2013 included:

- Fire Station 1 & Police Station
 - Repaired chair lifts
 - Installed 10 new toilets in jail cells
 - Installed new induction lighting in parking lot
- Fire station 2
 - Installed new faucets in kitchen

Other significant maintenance/repairs in Calendar Year 2012 included:

- Fire Station 1 & Police Station
 - Installed air compressor and auto condensate drain in the garage
 - Furnished and installed a copper chimney cap and screening
 - Replaced parking lot pole
 - Replaced voltage regulator and adjusting potentiometer
 - Installed new sink
 - Installed sentricon termite system
 - Painted exterior of Police station
 - Replaced section in overhead door in garage
 - Renovated kitchen
 - Repaired door #1 on Police side
 - Replaced all showerheads

- Painted interior of stairwell in fire station
- Fire Station 2
 - Replaced main doors in apparatus bay
 - Replaced spiral duct and low voltage wiring
 - Cleaned gutters and repaired parts of the roofs
 - Sanded and painted exterior doors, trim, and handrails

Other significant maintenance/repairs in Calendar Year 2011 included:

- Fire Station 1 & Police Station
 - Repaired overhead doors
 - Repaired several exterior lights
 - Repaired Plymovent exhaust system in garage
 - Cleaned duct work and abated mold
 - Replaced chiller and air handler
- Fire Station 2
 - Replaced boiler with condensing boiler
 - Cleaned duct work
 - Repaired Plymovent exhaust system in garage
 - Replaced 8 windows in building
 - Repaired overhead doors
 - Replaced gas stove and microwave in kitchen

Other significant maintenance/repairs in Calendar Year 2010 included:

- Repaired police and fire station overhead doors
- Exterior sprinkler repair at both station # 1 & station # 2
- Repaired natural gas line at station # 2
- Cleaned out gas/oil separator at Station # 1

Other significant maintenance/repairs in Calendar Year 2009 included:

- Completed repairs to police and fire station overhead doors
- Roof repairs
- Replaced roof on Public Safety Building
- Replaced carpeting in all administrative spaces in police station
- Painted all administrative spaces in police station
- Repaired natural gas leak in Fire Station #2
- Upgraded one main electrical service panel in Fire Station #2

Daley Building

257 R Webster Street

Assessed Value: \$1,076,100
 Parcel ID: Map 70 Block 29
 Lot Size: .92 acres
 Original Construction: 1960

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired cracks in the walls

Other significant maintenance/repairs in Calendar Year 2015 included:

- Completed various roof repairs
- Repaired masonry block walls

Other significant maintenance/repairs in Calendar Year 2014 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Repaired overhead doors
- Repaired security alarm system
- Repaired exterior masonry on northeast corner of building

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed Burner Booster (pilot) to reduce fuel oil consumption

Other significant maintenance/repairs in Calendar Year 2009 included:

- Roof repairs

Needham Public Library

1139 Highland Avenue

Assessed Value: \$13,772,800
 Parcel ID: Map 226 Block 55
 Lot Size: 1.05
 Original Construction: 1915; reconstruction and addition in 2006

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the chiller
- Replaced and repaired multiple lights
- Installed new EPDM roof over awning
- Replaced hand dryers
- Calibrate t-stats in the Library
- Fixed coil and condensation leaks
- Installed cooling valve

Other significant maintenance/repairs in Calendar Year 2015 included:

- Improved the library's chiller by installing 3 new contractors for #1 compressor, recharging the system, and pressure testing circuit 2
- Replaced heat valve on ERU 3
- Assisted with installation of new equipment and demo in the Library community room
- Repaired leaks in Library archive room, skylight, conference room, and hallway
- Replaced 8 failed valve bodies
- Rehung fan powered box in children's room
- Cleaned exterior windows
- Repaired elevators by replacing telescopic twin post packing, adding cat oil to heads, resinking, and replacing oil injectors

- Required lighting circuitry and relocated three low voltage switches
- Repaired the air conditioning unit in the archive room
- Demolished four wall hung closets and carriers in first floor women's room and installed rough and finished plumbing for four new Gerberit wall hung concealed tank water closets
- Replaced one of the sewage ejector pumps
- Fixed chiller circuit #2
- Converted exterior lighting to LED lighting
- Replaced CPU panel
- Changed pressure transducer, replaced flow switch, and troubleshot problems on the chiller

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed lettering of clear printed names on balustrade
- Repaired compressor on chiller
- Replaced handicap door operator
- Replaced station cards and updated Samsung phone system
- Repaired damaged sheetrock in conference room
- Reset capstone wall, repaired ramp, and repaired stone pavers outside of the entrance to the building
- Repaired exterior concrete stairs
- Repaired book drop doors
- Painted exterior of front entrance

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired all lighting throughout building
- Installed new capstone in stone knee wall outside of building

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repaired clock facing Highland Avenue
- Removed and replaced cork flooring on second and first floor
- Upgraded controls on boiler #1
- Repaired pole lights in parking lot
- Repaired and improved handicapped door opener at rear entrance
- Replaced first floor window panel in children's room
- Repaired chiller – roof
- Repaired mortar on corner stones
- Repaired broken glass partition on 2nd floor
- Installed film and railings on glass balustrades

Other significant maintenance/repairs in Calendar Year 2011 included:

- Repaired Boiler #1 & # 2
- Repaired some exterior lighting
- Repaired cork flooring in main level
- Cleaned duct work

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2009 included:

- Installed low volume ventilation system in Children's Room
- Removed the Wave in the Children's Room
- Patched and paint walls in Children's Room
- Installed cove base in Children's Room

Center at the Heights (Senior Center)

300 Hillside Avenue

Assessed Value: \$7,064,600
 Parcel ID: Map 99 Block 14
 Lot Size: 1.64 acres
 Original Construction: 2013

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2016 included:

- Installed new electrical outlet for new refrigerator
- Installed new window shades

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed new AED holders
- Installed six hoods for the Mitsubishi roof top units

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Rosemary Complex

Rosemary Street

Assessed Value: \$3,573,000
 Parcel ID: Map 225 Blocks 01;02;03;31
 Lot Size: 36.49 acres Includes camp and lake (lake equals 11.8 acres +/- camp equals 19 acres +/-)
 Original Construction: Camp 1942, Pool 1960, and Buildings 1972

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Rosemary Lake Sediment Removal	2,400,000					2,400,000
Rosemary Recreation Complex	15,800,000					15,800,000
Totals	18,200,000	-	-	-		18,200,000

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Pool Replacement Feasibility & Design				450,000	550,000	1,000,000
Rosemary Lake Sediment Removal Engineering					118,000	118,000
Totals	-	-	-	450,000	668,000	1,118,000

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired broken hand rails

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired showers and sinks that were leaking in the women’s restroom
- Installed new screens in windows
- Installed new diving board and new pedestal mount

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced door knobs with new ADA compliant handsets
- Repaired wooden deck
- Repaired block wall

Other significant maintenance/repairs in Calendar Year 2012 included:

- Replaced all showerheads
- Replaced old hot water heaters with new energy efficient hot water heaters

Other significant maintenance/repairs in Calendar Year 2011 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2010 included:

- Replacement of two major pumps: lift pump and circulation pump

Other significant maintenance/repairs in Calendar Year 2009 included:

- Replaced two exterior doors and two handicapped doors
- DPW replaced a leaking pipe
- DPW did all the pool prep work including replacing deck boards
- Replaced light fixtures in filter room, underground storage, concession room, and handicap bathrooms
- Rebuilt center dock
- Replaced the fencing and gate around the DE pit
- Installed covering over stairs

Memorial Park

1154 Highland Avenue

Assessed Value: \$913,100
 Parcel ID: Map 226 Block 30
 Lot Size: 13.08 acres
 Original Construction: 1985

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Improvements to Memorial Park Building and Grounds (Pending Results of Study)	5,900,000					5,900,000
						-
						-
Totals	5,900,000	-	-	-	-	5,900,000

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Memorial Park Improvements			35,000			35,000
Drainage Improvements					310,000	310,000
Improvements to Memorial Park Buildings and Grounds Feasibility					50,000	50,000
Totals	-	-	35,000	-	360,000	395,000

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the steps on the gazebo
- Installed new hand dryers
- Repaired window in office
- Installed new railings for the gazebo

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced heat detector and strobe
- Replaced heat detector in football storage room 5
- Replaced one horn strobe on second floor
- Replaced fire alarm control panel and changed all devices to an addressable style
- Removed urinal and replaced with pedestal sink in first level unisex restroom

Other significant maintenance/repairs in Calendar Year 2014 included:

- Water sealed the wood stairs at Memorial Park
- Installed new water heater at Memorial Park Field House

- Changed locks and door hardware on both doors at Memorial Park

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed new gas furnaces at Memorial Park

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Replaced all exterior doors at Memorial Park
- Repainted awning on exterior of Memorial Park

Other significant maintenance/repairs in Calendar Year 2010 included:

- Repainted traffic markings

Other significant maintenance/repairs in Calendar Year 2009 included:

- No significant repairs

Chestnut Street Annex (reserved for public safety expansion)

66 – 70 Chestnut Street

Assessed Value: \$1,294,400
 Parcel ID: Map 47 Block 57
 Lot Size: .58 acres
 Original Construction: Purchased 12/18/2013

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Land Purchase		1,533,000				1,533,000
						-
Totals	-	1,533,000	-	-	-	1,533,000

Other significant maintenance/repairs in Calendar Year 2016 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2015 included:

- Removed sign from property

Other significant maintenance/repairs in Calendar Year 2014 included:

- No significant repairs

Needham Parks

Assessed Value: Multiple
 Parcel ID: Multiple
 Lot Size: Multiple
 Original Construction: Multiple

Identified Future Capital Projects						
Project	FY2018	FY2019	FY2020	FY2021	FY2022	Total
Artificial Turf Carpet Replacement		207,000	2,500,000			2,707,000
Asa Small Field Improvements		141,000				141,000
Claxton Field Improvements		363,000			134,234	497,234
Cricket Building and Field Improvements	285,000		154,000	618,000		1,057,000
McLeod Field Improvements				450,000		450,000
Playground Improvements Townwide			600,000			600,000
Renovation of Buildings at Camp Property		250,000				250,000
Reservoir Trail	925,000					925,000
Totals	1,210,000	961,000	3,254,000	1,068,000		6,627,234

Five Year Capital Appropriation Summary						
Project	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Athletic Facility Improvements	192,500					192,500
DeFazio Resodding	90,000					90,000
Greene's Field Improvements	445,000					445,000
Mills Field Improvements		40,000		510,000		550,000
Newman School Fields				1,527,000		1,527,000
Newman School Trail		248,000		800,000		1,048,000
Rail Trail Improvements				100,000		100,000
Reservoir and Ridge Hill Trails		85,000				85,000
Totals	727,500	373,000	-	2,937,000	-	4,037,500

Other significant maintenance/repairs in Calendar Year 2016 included:

- Installed two new hand dryers at the DeFazio Field bathroom facility
- Replace missing stall doors at the DeFazio Field bathroom facility

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- Replaced locks and door hardware on restroom doors at Claxton Field

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed two new toilets in women's bathroom at Cricket Field

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2009 included:

- No significant repairs

Glossary

Section 5

GLOSSARY

Provided below are some of the commonly used terms in budget and capital planning and fiscal and debt management.

Account - A classification of appropriation by type of expenditure.

Accounting Period – A period of time (e.g., one month, one year) where the Town determines its financial position and results of operations.

Accrual Basis - The basis of accounting under which transactions are recognized when they occur, regardless of the timing of related cash flows.

Actuarial - A person or methodology that makes determinations of required contributions to achieve future funding levels by addressing risk and time.

ADA - Americans with Disabilities Act

Athletic Facility Improvement Fund - This fund was created at the 2012 Annual Town Meeting. The purpose of this fund is to allow the Town to reserve funds for the renovation and reconstruction of the Town's athletic facilities, with particular emphasis on the turf fields installed at the Memorial Park and DeFazio Field.

American Reinvestment and Recovery Act - The American Recovery and Reinvestment Act of 2009, abbreviated ARRA or Federal Stimulus, is an economic stimulus package enacted by Congress in February 2009. The Act includes federal tax cuts, expansion of unemployment benefits and other social welfare provisions, and domestic spending in education, health care, and infrastructure, including the energy sector.

Appropriation – A legal authorization granted by Town Meeting to expend money and incur obligations for specific public purposes.

ARRA - See American Reinvestment and Recovery Act

Assessment – The official valuation of property for purposes of taxation.

Available Funds – Balances in the various fund types that represent non-recurring revenue sources. As a matter of sound practice, they are frequently appropriated to meet unforeseen expenses, for capital expenditures or other onetime costs. Examples of available funds include free cash, stabilization funds, overlay surplus, and retained earnings.

Balanced Budget – A budget is balanced when planned funds or total revenues equal planned expenditures, that is, total

outlays or disbursements, for a fiscal year.

Betterment (Special Assessment) – Whenever part of a community benefits from a public improvement, or betterment (e.g., water, sewer, sidewalks, etc.), special property taxes may be assessed to the property owners of that area to reimburse the governmental entity for all, or part, of the costs it incurred in completing the project. Each property parcel receiving the benefit is assessed a proportionate share of the cost which may be paid in full, or apportioned over a period of up to 20 years.

Bond – A written promise to pay a specified sum of money (called the face value or principal amount) at a specified date or dates in the future (called the maturity date), together with periodic interest at a specified rate. The difference between a note and a bond is that the latter runs for a longer period of time and requires greater legal formality.

Bond Anticipation Note (BAN) – Short-term interest-bearing notes issued by a government in anticipation of bonds to be issued at a later date. Notes are retired from proceeds from the bond issue to which they are related and/or from a cash payment and/or Town appropriation.

Capital Budget - A plan for capital expenditures for projects to be included during the first year of the capital improvement plan.

Capital Exclusion – A *temporary* increase in the tax levy to fund a capital project or make a capital acquisition. Exclusions require 2/3 vote of the entire Board of Selectmen and a majority vote in a town-wide election. The exclusion is added to the tax levy only during the year in which the project is being funded and may increase the tax levy above the levy ceiling.

Capital Facility Stabilization Fund - This fund was created at the 2007 Annual Town Meeting. The purpose of this fund is to allow the Town to reserve funds for design, maintenance, renovation or reconstruction relating to the structural integrity, building envelope or MEP (mechanical, electrical, plumbing) systems of then existing capital facilities. For this purpose, capital facility refers to any building or structure which is located on Town property and is under the jurisdiction of the Town Manager, including any Town owned building, structure, room, or space within a building, facility, park or plaza, open space, driveway, landscaped area, or other physical improvements under the administrative control of the Town.

Capital Improvement Fund – This fund was created at the 2004 Annual Town Meeting. The purpose of this Fund is to allow the Town to reserve funds for the acquisition of new equipment and/or the replacement of existing equipment (for which the Town may borrow money for a period of five years or more), and/or for building/facility improvements with a cost of less than \$250,000 (for which the Town may borrow money for a period of five years or more). Only general fund capital that has been recommended in the Capital Improvement Plan (CIP) is eligible for funding in this manner.

Capital Improvement Plan (CIP) – A financial planning and management tool that identifies public facility and equipment requirements and schedules them for funding and implementation.

Capital Project – Major, non-recurring expenditure involving one or more of the following: acquisition of land for a public purpose; construction of or addition to a facility such as a public building, water or sewer lines, play field, etc.; rehabilitation or repair of a building, facility, or equipment, provided the cost is \$25,000 or more and the improvement will have a useful life of five years or more; purchase of equipment costing \$25,000 or more, with a useful life of five years or more; and any planning, engineering, or design study related to an individual capital project.

Cash Basis - A basis of accounting under which transactions are recognized only when cash changes hands.

Chapter 90 – Massachusetts General Laws Chapter 90, Section 34 authorizes the Commonwealth to allocate funds to municipalities, through the Transportation Bond Issue, for highway construction, preservation and improvement projects that create or extend the life of capital facilities; routine maintenance operations such as pothole filling and snow and ice removal are not covered. The formula for determining the Chapter 90 level of funding is based on a municipality's miles of public ways, population and level of employment. Municipalities receive Chapter 90 reimbursement only for pre-approved projects.

Cherry Sheet - Originally printed on a cherry-colored form, this document reflects all Commonwealth charges, distributions and reimbursements to a city or town as certified by the state Director of the Bureau of Accounts.

Collective Bargaining - The process of negotiations between the Town and bargaining units (unions) regarding the salary and fringe benefits of town employees.

Community Preservation Act (CPA) – Enacted as Massachusetts General Laws Chapter 44B in 2000, CPA permits cities and towns accepting its provisions to establish a restricted fund from which monies can be appropriated only for a) the acquisition, creation and preservation of open space; b) the acquisition, preservation, rehabilitation, and restoration of historic resources; and c) the acquisition, creation and preservation of land for recreational use; d) the creation, preservation and support of community housing; and e) the rehabilitation and restoration of open space, land for recreational use and community housing that is acquired or created using monies from the fund. The local program is funded by a local surcharge up to 3 percent on real property tax bills and funds from the state generated from registry of deeds fees. The voters of Needham approved a 2 percent surcharge effective July 1, 2005.

Community Preservation Fund - A special revenue fund established pursuant to Massachusetts General Laws Chapter 44B to receive all monies collected to support a community preservation program, including but not limited to, tax surcharge receipts, proceeds from borrowings, funds received from the Commonwealth, and proceeds from the sale of certain real estate.

Conservation Fund – The Town may appropriate money to a conservation fund. This money may be expended by the Conservation Commission for lawful conservation purposes as described in Massachusetts General Laws Chapter 40 Section 8C. The money may also be expended by the Conservation Commission for damages arising from an eminent domain taking provided that the taking was approved by two-thirds vote of Town Meeting.

Contingent Appropriation – An appropriation that authorizes spending for a particular purpose only if subsequently approved in a voter referendum. Under Massachusetts General Laws Chapter 59 Section 21C (m), towns may make appropriations from the tax levy, available funds or borrowing, contingent upon the subsequent passage of a Proposition 2½ override or exclusion question for the same purpose. If initially approved at an annual Town Meeting, voter approval of the contingent appropriation must occur by certain date after the Town Meeting dissolves. The question may be placed before the voters at more than one election, but if not approved by the applicable deadline, the appropriation is null and void.

Debt Exclusion – A *temporary* increase in the Town's levy limit (and possibly the levy ceiling) to exclude the payment of debt from the limits of Proposition 2½. The debt service is added to the levy limit for the life of the debt only. To place a debt exclusion question on the ballot requires a 2/3 vote of the entire Board of Selectmen. The debt exclusion question requires a majority vote by voters for passage.

Debt Exclusion Offset – Other funds that are used to reduce the amount of the debt paid by the tax levy. An example is a bond premium which is the difference between the market price of a bond and its face value. A premium will occur when the bond's stated interest rate is set higher than the true interest cost (the market rate). Additions to the levy limit for debt exclusion are restricted to the true interest cost incurred to finance the excluded project. Premiums received at the time of sale must be offset against the stated interest cost in computing the debt exclusion. If receipt of the premium and the payment of interest at maturity of an excluded debt occur in different fiscal years, reservation of the premium for future year's debt service is required at the end of the fiscal year when the premium was received.

Debt Limit – The maximum amount of gross or net debt that is legally permitted under State Law.

Debt Policy – Part of an overall capital financing policy that provides evidence of a commitment to meet infrastructure needs through a planned program of future financing. The Town of Needham has debt policies that have been developed in consultation with the Finance Committee and reviewed and approved by the Board of Selectmen.

Debt Service – The amount paid annually to cover the cost of both principal and interest on a debt issuance until its retirement.

Department - A service providing entity of the town government.

Division - A budgeted sub-unit of a department.

Encumbrance – The setting aside of funds to meet known obligations.

Enterprise Fund – A municipal fund established for the operation of a municipal utility, health care, recreational, or transportation facility whereby the operations are fully funded by the fees associated with that enterprise rather than by the tax levy. The "surplus" or retained earnings generated by the operation of the enterprise remain with the fund to offset future

capital improvements, extraordinary maintenance expenses, or to reduce future fees and charges of the fund.

Expenditure Account Code - An expenditure classification according to the type of item purchased or service obtained, for example, regular compensation, energy expense, communications, educational supplies, and vehicle equipment.

Fiscal Year - The twelve-month financial period used by the Town beginning July 1 and ending June 30 of the following calendar year. The Town's fiscal year is numbered according to the year in which it ends.

Fixed Assets - Assets of a long-term character, which are intended to continue to be held or used, such as land, building, and improvements other than buildings, machinery, and equipment.

Formula Grant - Federal funding for which the allocation methodology is strictly determined in federal statute or regulation, and for which a government agency prepares a single application and receives subsequent years' allocation without re-application.

Free Cash - Free cash is the amount of the General Fund unassigned fund balance that may be used as a source to fund appropriations. The Massachusetts Department of Revenue certifies the amount of "free cash" resulting from closing the financial books as of June 30, the end of the fiscal year. Free cash may only be used after the certification process by the Department of Revenue is complete. For example, the July 1, 2012 certified amount may be used to fund supplemental appropriations voted during fiscal year 2013, or applied as a revenue source to support the fiscal 2014 appropriations that may be voted in the spring of 2013.

Fringe Benefits - Employee-related costs other than salary, e.g., insurance and retirement costs.

Full Faith and Credit - A pledge of the general taxing power for the payment of debt obligations. Bonds carrying such pledges are referred to as general obligation bonds or full faith and credit bonds.

Full-time Equivalent Position (FTE) - A concept used to group together part-time positions into full-time units.

Fund - An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources with all related liabilities, obligations, reserves, and equities that are segregated for specific activities or objectives. Among the fund types used by the Town are General, Special Revenue, Capital Projects, Trust, and Enterprise.

FY - Fiscal Year

GASB - This refers to the Governmental Accounting Standards Board which is currently the source of generally accepted accounting principles (GAAP) used by state and local governments in the United States. It is a private, non-governmental organization. The GASB has issued Statements, Interpretations, Technical Bulletins, and Concept Statements defining GAAP for

state and local governments since 1984.

GASB 34 – GASB Statement Number 34 set new GAAP requirements for reporting major capital assets, including infrastructure such as roads, bridges, water and sewer facilities, and dams. The Town of Needham has implemented the Governmental Accounting Standards Board's (GASB) Statement Number 34, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments, financial reporting model. This standard changed the entire reporting process for local governments, requiring new entity-wide financial statements, in addition to the current fund statements and other additional reports such as Management Discussion and Analysis.

GASB 45 – The Town of Needham's financial statements are required to implement Governmental Accounting Standards Board (GASB) Statement Number 45 for other post employment benefits (OPEBs) including health care, life insurance, and other non-pension benefits offered to retirees. This new standard addresses how local governments should account for and report their costs related to post employment health care and other non-pension benefits, such as the Town's retiree health benefit. Historically, the Town's cost was funded on a pay-as-you-go basis. GASB 45 requires that the Town accrue the cost of the retiree health insurance and other post employment benefits during the period of employees' active employment, while the benefits are being earned, and disclose the unfunded actuarial accrued liability in order to accurately account for the total future cost of post employment benefits and the financial impact on the Town. This funding methodology mirrors the funding approach used for pension/retirement benefits. The Town has established Fund and annually appropriates the required contribution based on updated reports. The Fund will allow the Town to capture long-term investment returns and make progress towards reducing the unfunded liability.

Generally Accepted Accounting Principles (GAAP) - The basic principles of accounting and reporting applicable to state and local governments, including the use of the modified accrual or accrual basis of accounting, as appropriate, for measuring financial position and operating results. These principles must be observed to provide a basis of comparison for governmental units.

General Fund - The fund into which the general (non-earmarked) revenues of the municipality are deposited and from which money is appropriated to pay the general expenses of the municipality.

General Obligation Bonds – Bonds for the payment of which the full faith and credit of the issuing government are pledged.

Infrastructure – The underlying foundation or basic framework of an organization or system, e.g., roads, bridges, buildings, land, and natural resources.

Lease-Purchase Agreements – Contractual agreements which are termed "leases," but which in substance amount to purchase contracts in which the financing is provided by an outside party.

Levy Limit – Property tax levy limits that constrain the total amount of revenue that can be raised from the property tax. In

Massachusetts, the levy limit is governed by Proposition 2½.

Mandate – A requirement from a higher level of government that a lower level government perform a task in a particular way or in conformance with a particular standard.

Massachusetts Water Pollution Abatement Trust (MWPAT) - A statewide revolving fund that commenced operations in 1990 to address necessary environmental actions outlined in the Federal Clean Water Act.

Massachusetts Water Resources Authority (MWRA) - The Massachusetts Water Resources Authority is a Massachusetts public authority established by an act of the Legislature in 1984 to provide wholesale water and sewer services to 2.5 million people in 61 metropolitan Boston communities. The Town of Needham disposes all wastewater through the MWRA system and purchases drinking water as needed from the MWRA during the year.

Modified Accrual Basis - The accrual basis of accounting adapted to the governmental fund type, wherein only current assets and current liabilities are generally reported on fund balance sheets and the fund operating statements present financial flow information. Revenues are recognized when they become both measurable and available to finance expenditures of the current period. Expenditures are recognized when the related fund liability is incurred except for a few specific exceptions. All governmental funds and expendable trust funds are accounted for using the modified accrual basis of accounting.

Note Payable – In general, an unconditional written promise signed by the maker to pay a certain sum in money on demand or at a fixed or determinable time either to the bearer or to the person designated therein.

Official Statement - The municipal equivalent of a bond prospectus.

Operating Budget - A budget making appropriations for the ordinary maintenance or administration of activities for the fiscal year.

Operating Equipment - Equipment that has a life expectancy of more than one year and a value of less than \$25,000 dollars. Equipment with a useful life of five or more years and a value greater than \$25,000 dollars is capital equipment.

Overlay Surplus - Any balance in the overlay account of a given year in excess of the amount remaining to be collected or abated can be transferred into this account. At the end of each fiscal year, unused overlay surplus is “closed” out to fund balance, in other words, it becomes a part of Free Cash (see Undesignated Fund Balance).

Override - A permanent increase of the Town's levy limit (but not the levy ceiling) when a majority of voters in an election approve such an override. The override amount becomes part of the levy base when setting the next year's levy limit. To place an Override question on the ballot requires a majority vote of the Board of Selectmen.

Pay-As-You-Go – A term used to describe the financial policy of a government which finances all of its capital outlay from current revenues rather than by borrowing. A government which pays for some improvements from current revenues and others by borrowing is said to be on a partial or modified pay-as-you-go basis.

Pay-As-You-Use – A term used to describe the financial policy of a government which finances its capital outlays from borrowing proceeds and pays for capital assets over their useful life.

Performance Measure - An indicator of progress toward a goal or strategy. Measures can be defined for identifying output, work or service quality, efficiency, effectiveness, and productivity.

Proposition 2½ - That measure which limits municipal property taxes to 2½ percent of the community's full and fair cash value (levy ceiling), and which limits the amount of revenue a municipality can raise through property taxes (levy limit) to 2½ percent each year, plus a factor for new growth. A municipality may exceed its levy limit in two ways: override or debt exclusion.

Provisional Capital – A capital request that is submitted by a department to identify a future need or obligation, but the department is not in the position to provide the necessary details so that the request can be evaluated.

Reserve Fund - An amount set aside annually by a vote of Town Meeting to provide a funding source for extraordinary or unforeseen expenditures. Only the Finance Committee can authorize transfers from the reserve fund. Any balance remaining in the reserve fund at the end of the fiscal year is "closed" out to fund balance and ceases to be available.

Special Revenue Fund - Used to account for the proceeds of specific revenue sources (other than special assessments, expendable trusts, or sources for major capital projects) that are legally restricted to expenditures for specific purposes. A special revenue fund is accounted for in the same manner as a General Fund.

Stabilization Fund – Massachusetts General Laws Chapter 40, Section 5B allows a municipality to appropriate annually to such fund an amount to be raised in the preceding fiscal year; the aggregate amount in the fund shall not exceed ten percent of the equalized valuation of the municipality. The Treasurer shall be custodian of the fund and may invest the proceeds legally; any interest earned shall remain with the fund. The Stabilization Fund may be appropriated by Town Meeting. The appropriation may be used for any lawful purpose.

Technology Infrastructure - The hardware and software that support information requirements, including computer workstations and associated software, network and communications equipment, and system-wide devices.

Town Meeting - Town Meeting is both an event and a governmental body. As an event, it is a gathering of a Town's representative Town Meeting Members (TMM), and is referred to as "the Town Meeting." As a governmental body, it is the legislative body for the Town of Needham, and is referred to simply as "Town Meeting."

Trust Funds - Funds held by the Town in a fiduciary role, to be expended for the purposes specified by the donor.

Uniform Procurement Act - Enacted in 1990, Massachusetts General Laws Chapter 30B establishes uniform procedures for local government to use when contracting for supplies, equipment, services and real estate. The act is implemented through the Office of the Inspector General.

Warrant - The warrant lists a Town Meeting's time, place, and agenda. A warrant is also known as a warning. A Town Meeting's action is not valid unless the subject was listed on the warrant.

Appendices

Section 6

- A. Capital Improvement Policies
- B. Debt Management Policies
- C. Retained Earnings Policy for Water & Sewer Enterprise Funds
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CAPITAL IMPROVEMENT POLICIES

A. General Provisions

1. Capital items for the purpose of this Capital Improvement Plan shall be defined as follows:
 - Items requiring an expenditure of at least \$25,000 and having a useful life of more than five years.
 - Projects consisting of real property acquisitions, construction, capital asset improvements, long-life capital equipment, or major maintenance/repair of and existing capital item, as distinguished from a normal operating expenditure.
 - Items obtained under a long-term lease.
2. Town departments will submit spending requests that provide sufficient funding for adequate maintenance and orderly replacement of capital plant and equipment.
3. All assets will be maintained at a level that protects capital investment and minimizes maintenance and replacement costs.
4. All equipment replacement needs for the coming five years will be projected and the projection will be updated each year.
5. Future operating and maintenance costs for all new capital facilities will be fully costed out.

B. Capital Improvement Fund (CIF)

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003 and Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established a General Fund Cash Capital Equipment and Facility Improvement Fund hereinafter referred to as the Capital Improvement Fund or CIF (Article 58/2004 ATM). The purpose of the CIF is to allow the Town to reserve funds to use for general fund cash capital.
2. Appropriations from the CIF are restricted to the following items for which the Town may borrow for a period of five years or more: the acquisition of new equipment; the replacement of existing equipment; and building and facility improvements which cost less than \$250,000.
3. Only General Fund capital items that have been identified in the CIP for a period of three (3) years or more, and that have been recommended in the Capital Improvement Plan for the current year, are eligible for funding from the CIF.
4. The CIF may be used to pay for recurring equipment replacement needs that have been identified in the CIP and funded in at least three (3) of the five (5) immediately preceding fiscal years.
5. Appropriations into the CIF and interest earnings on the Fund become part of the Fund.

C. Capital Facility Fund (CFF)

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003, and as further amended by Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established a Capital Facility Fund (Article 10/2007 ATM). The purpose of this Fund is to allow the Town, from time to time, by appropriation, to reserve funds for the design, maintenance, renovation, or reconstruction relating to the structural integrity, building envelope, or MEP (mechanical, electrical, plumbing) systems of then existing capital facilities.
2. For the purpose of the Fund, the term "capital facility" shall refer to any building or structure which is located on Town property and is under the jurisdiction of the Town Manager.
3. The term "building or structure " shall include, but not be limited to, any Town-owned building, structure, room, or space within a building, facility, park or plaza, open space, driveway, landscaped area, or other physical improvements under the administrative control of the Town
4. Appropriations into the CFF and interest earnings on the Fund become part of the Fund.

D. Athletic Facility Improvement Fund (AFIF)

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003, and as further amended by Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established an Athletic Facility Improvement Fund under Article 39 of the 2012 Annual Town Meeting. The purpose of this fund is to allow the Town, from time to time, by appropriation, to reserve funds for the design, maintenance, renovation, reconstruction, or construction of athletic facilities.
2. For the purpose of the fund, the term "athletic facility" shall refer to any Town-owned building, structure, pool, synthetic and natural grass turf playing field or ball diamond, and associated grounds and parking areas whose primary purpose is for organized athletic events for Needham children, adults and public school teams.

E. Debt Service Stabilization Fund

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003, and as further amended by Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established a Debt Service Stabilization Fund to allow the Town, from time to time, by appropriation, to reserve funds to pay the debt service for engineering and design, renovation, reconstruction or construction of Town facilities.

Approved May 1991; Revised December 20, 2005; Revised May 11, 2010; Revised October 8, 2013; Revised December 20, 2016.

DEBT MANAGEMENT POLICIES

1. Proceeds from long-term debt will not be used for current, ongoing operations.
2. The Town will strive to limit total debt service, including debt exclusions and self-supporting debt, to ten percent (10%) of gross revenues.
3. The Town will allocate or reserve three percent (3%) of projected General Fund revenue (e.g. property taxes less debt exclusions, state aid, and local receipts) for debt service.
4. The Town will limit annual increases in debt service to a level that will not materially jeopardize the Town's credit rating.
5. For those previously authorized bonded projects with residual balances, the Town Manager shall propose the reallocation of these balances for other capital projects in conformance with MGL Chapter 44, Section 20.
6. For those previously authorized projects funded with available revenue (tax levy or reserves), that have residual balances in excess of \$5,000, the Town Manager shall propose the reallocation of these balances for other future capital projects in conformance with MGL Chapter 44, Section 33B. This practice will avoid abnormally inflating general fund surplus with one-time receipts.
7. For those previously authorized projects funded with available revenue (tax levy or reserves), with residual balances of less than \$5,000, the Assistant Town Manager/Finance Director may authorize the Town Accountant to close these balances to the appropriate fund surplus.
8. The Town will attempt to limit bond sales in any calendar year to \$10,000,000 in order to maintain bank qualifications and thereby receive lower interest rates on bonded debt.
9. Long-term borrowing will be confined to capital improvements too expensive to be financed from current revenues. In general, the Town will attempt to finance purchases costing less than \$100,000 with operating revenues.
10. Bonds will be paid back within a period not to exceed the expected useful life of the capital project.
11. To the extent practicable, user fees will be set to cover the capital costs of enterprise type services or activities - whether purchased on a pay-as-you-go basis or through debt financing - to avoid imposing a burden on the property tax levy.
12. Ongoing communications with bond rating agencies will be maintained, and a policy of full disclosure on every financial report and bond prospectus will be followed.

Approved May 1991; Revised December 1998, April 7, 2009

RETAINED EARNINGS POLICY FOR WATER AND SEWER ENTERPRISE FUNDS

It shall be the policy of the Board of Selectmen to maintain a level of unreserved retained earnings sufficient to address the financing of: working capital; revenue shortfalls; unanticipated increases in MWRA wastewater assessments; and unanticipated and emergency expenditures.

Unreserved retained earnings are cumulative surplus funds, as certified by the Massachusetts Department of Revenue, that are available for appropriation by Town Meeting to support any capital expense of the enterprise or to reduce user charges.

The rationale for, and the calculation of, unreserved retained earnings to be maintained by the Town are described below and are referred to as the "Liquidity Method" and the "Credit Quality Method." Retained earnings targets shall be calculated using both methods, and shall be set using the method which represents the higher number in any given year. Under the Liquidity Method, the total amount of retained earnings to be maintained shall be equal to 80 percent of the sum of the following individual calculations. The factor of 80 percent is based on the assumption that the likelihood of all factors occurring in one fiscal year is small; therefore there is no need to maintain one hundred percent of the calculated level of retained earnings. Under the Credit Quality Method, the total amount of retained earnings should not be less than fifteen percent of the operating revenue of the most recent audited fiscal year.

Liquidity Method

Working Capital: For those periods where monthly expenses exceed available cash, the water and sewer enterprises must have access to working capital to finance operations. In the absence of retained earnings, operations would require the use of General Fund cash which would reduce General Fund cash available for investment, and consequently reduce General Fund Revenue. To avoid the use of General Fund cash as working capital for the water or sewer operations, retained earnings shall be maintained at a level to provide sufficient working capital to finance the operations of these enterprise funds. The amount retained for this purpose shall be equal to the average of the largest monthly operating deficit of the prior three years.

Consumption Contingency: Annual water and sewer revenue is a function of the amount of water purchased by customers. If, in any year, purchases are less than projected, a revenue shortfall will occur. Retained earnings shall be maintained at a level sufficient to offset any loss in revenue due to unanticipated decreases in purchases. That level shall be equal to the difference of the consumption used for rate making purposes versus the lowest level of consumption for the prior six fiscal years, multiplied by the current sewer rates and water rates shown as Step 3 of the Town's step rate structure. Step 3 is selected as it generally represents the point at which discretionary purchases of water begin. The scenario envisioned here is a wet year in which customers will not need to make discretionary purchases of water.

MWRA Assessment Mitigation: The Town's MWRA wastewater assessment is levied on a fiscal year basis, yet it is a function of the volume of effluent discharged into the MWRA system in the prior calendar year. The Town's wastewater system is subject to high levels of infiltration and inflow (I/I) given its age. Infiltration and inflow can substantially increase the volume of effluent

discharged into the MWRA system. Following a year in which high levels of I/I occur, the Town's MWRA assessment will increase at a rate that substantially exceeds the average increase for all MWRA members. An increase of this magnitude can adversely affect rates charged to Town customers. Consequently, retained earnings shall be maintained at a level sufficient to mitigate rate increases needed to fund large increases in the Town's assessment. That level shall be equal to the largest annual amount - for the prior six year period - by which the average rate of increase in assessments for all MWRA members exceeds the rate of increase in the Town's assessment, multiplied by the most current MWRA assessment.

Unanticipated Budgetary Fluctuation: Retained earnings shall be maintained at a level sufficient to fund unanticipated or emergency capital or operating expenditures. It shall be a goal to maintain an amount equal to 6% of the annual sewer operating budget and 10% of the annual water-operating budget.

Restoration of Depleted Retained Earnings: If, in any year, retained earnings fall below the targets established by this policy, it shall be the policy of the Board of Selectmen to set future rates to restore retained earnings to the target level over the following three year period.

Adopted by the Needham Board of Selectmen on April 20, 1999; revised June 6, 2003, revised January 12, 2010

RETAINED EARNINGS POLICY FOR THE SOLID WASTE ENTERPRISE FUND

It shall be the policy of the Board of Selectmen to maintain a level of unreserved retained earnings sufficient to address the financing of: working capital; unanticipated and emergency expenditures; revenue shortfalls; depreciation expense; pollution control surcharges; and unanticipated increases in the recycling costs.

Unreserved retained earnings are cumulative surplus funds, as certified by the Massachusetts Department of Revenue. In proposing the annual Solid Waste Disposal/Recycling operating budget, the Board of Selectmen shall recommend to Town Meeting the use of retained earnings that are available for appropriation by Town Meeting to support any capital expense of the enterprise or to reduce user charges, or both, as provided by State Law.

The rationale for, and the calculation of, unreserved retained earnings to be maintained by the Town are described below and are referred to as the "Liquidity Method" and the "Credit Quality Method." Retained earnings targets shall be calculated using both methods, and shall be determined using the method which represents the higher number in any given year. Under the Liquidity Method, the total amount of retained earnings to be maintained shall be equal to 80 percent of the sum of the individual calculations for working capital, unanticipated and emergency expenditures, revenue shortfalls, pollution control surcharges, and, unanticipated increases in the recycling costs and 100 percent of cumulative depreciation expense net any amounts appropriated for equipment replacement. The factor of 80 percent is based on the assumption that the likelihood of all factors occurring in one fiscal year is small; therefore there is no need to maintain one hundred percent of the calculated level of retained earnings. The use of a factor of 100 percent for depreciation expense is based on the assumption that all of these funds will be needed for equipment replacement. Under the Credit Quality Method, the total amount of retained earnings should not be less than fifteen percent of the operating revenue of the most recent audited fiscal year.

Liquidity Method

Working Capital: For those periods where monthly expenses exceed available cash, the RTS enterprise must have access to working capital to finance operations. In the absence of retained earnings, operations may require the use of General Fund cash which would reduce General Fund cash available for investment, and consequently reduce General Fund Revenue. To avoid the use of General Fund cash as working capital for the RTS operation, retained earnings shall be maintained at a level to provide sufficient working capital to finance the operations of this enterprise fund. The amount retained for this purpose shall be equal to the average of the largest cumulative monthly operating deficit of the prior three years.

Further, any general fund support of the RTS enterprise fund shall be made on a 1/12 basis throughout the fiscal year to preclude the RTS fund's use of general fund cash before the need truly exists.

Reserve for Unanticipated and Emergency Expenditures: Retained earnings shall be maintained at a level sufficient to fund unanticipated or emergency capital or operating expenditures as recommended to the Board of Selectmen annually by the Director of the Department of Public Works and the Director of Finance.

Reserve for Revenue Shortfall: Annual RTS revenue is, in part, a function of the amount of solid waste disposed of by Town residents. If, in any year, the amount disposed is less than projected, a revenue shortfall may occur. Retained earnings shall be

maintained at a level sufficient to offset any loss in revenue due to unanticipated decreases in disposal.

Reserve for Depreciation Expense: Annually, the Director of Finance shall procure from the Director of Public Works, an inventory of all capital equipment used to support the operation of the RTS. This list shall be comprised of those pieces of equipment that cost \$50,000 or less and will include the purchase price and estimated useful life of each piece. Based on this information, the annual depreciation expense for each piece shall be calculated and revenues shall be raised to finance this expense. At the end of each fiscal year, the amount of revenue raised to offset depreciation expense shall constitute a reservation of retained earnings for the future replacement of capital equipment and shall be added to existing reservations attributable to prior years' depreciation. The purpose of this policy is to limit annual increases or decreases in RTS fees to fund small capital replacement.

Reserve for Pollution Control Surcharge - The Town's contract with Wheelabrator/Millbury for the tipping of solid waste contains a provision that allows Wheelabrator/Millbury to impose a pollution control surcharge on the Town to recoup the costs of installing pollution control equipment required by state and federal regulatory agencies. Retained earnings shall be maintained at a level needed to finance one year of pollution control surcharges imposed on the Town. Based on a surcharge imposed in FY92, that level shall be calculated annually at an amount equal to 3% of the current tipping fee multiplied by the tonnage tipped at the Wheelabrator Facility in the prior fiscal year.

Reserve for Unanticipated Increases in the Recycling Market - Notwithstanding any contract the Town may have for the collection and disposal of recyclable material collected at the RTS, the volatile nature of the recycling market poses the possibility that any contractor with whom the Town has an agreement could go out of business on short notice, leaving no alternative but to pay current market prices for disposal of recyclables. This exposure shall be calculated annually by the Directors of Public Works and Finance and shall be based on a comparison of costs reflected in any of the Town's active recycling contracts and the spot market for tipping and hauling at the time of this annual assessment. The amount of the exposure shall be recommended to the Board of Selectmen as a reservation of retained earnings.

Restoration of depleted Retained Earnings: If, in any year, retained earnings fall below the targets established by this policy, it shall be the policy of the Board of Selectmen to set future rates to restore retained earnings to the target level over the following three year period.

Approved by the Needham Board of Selectmen November, 1999; revised January 12, 2010