

# 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 FY2017 Capital Budget, which is recommended to the Finance Committee and ultimately to Town Meeting for consideration. The projects presented for FY2018-FY2021 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 FY2017 capital budget is shown in Table 1.

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 – 44% of the General Fund cash financed category for fiscal year 2017. Excluding the Hillside School project, the amount of capital recommended to be financed by debt is low in comparison to recent years. The FY2017 – FY2021 Capital Plan reflects the Board of Selectmen’s priorities, including 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 creative financing alternatives, and alignment of capital and maintenance needs with appropriate funding sources.

**Table 1**  
**FY2017 Proposed Financing Plan**

Fund	Cash	Debt	Total
General Fund	\$2,516,117	\$750,000	\$3,266,117
Community Preservation Fund	\$1,158,500		\$1,158,500
Solid Waste Enterprise	\$238,000	\$269,000	\$507,000
Sewer Enterprise	\$73,860		\$73,860
Water Enterprise	\$345,679		\$345,679
<b>Total (all funds)</b>	<b>\$4,332,156</b>	<b>\$1,019,000</b>	<b>\$5,351,156</b>

### FY2017 Highlights

According to Section 2.2.2.2 of the General By-Laws of the Town of Needham, a capital expenditure is defined 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. Changes to the CIP include primarily the realignment of spending for traditional capital items with appropriate funding sources. Changes include:

- The transition of items that do not meet the capital expenditure definition (such as items that cost less than \$25,000 or that have a useful life of less than

five years) to the operating capital line of the appropriate department. For FY2017, this includes Network Hardware, Servers & Switches (\$30,000), Production Center Postage Machine (\$16,770), Bubbler Replacement Program (\$25,000), and School Technology with a Useful Life of Less than Five Years (\$340,700).

- The transition of the Public Works Infrastructure Program from a predominantly debt financed program to a cash-based program over five years (beginning in FY2016). The FY2017 Capital plan includes \$750,000 in debt financed Public Works Infrastructure.
- The consolidation of the General Fund and Enterprise Fund Fleet Replacement Program (beginning in FY2015). Over the next few years, the plan will include updated replacement schedule matrices. The goals of the fleet replacement program are: replacing vehicles before service delivery is negatively impacted, maximizing vehicle availability for all user departments, minimizing costs from vehicle downtime and emergency maintenance and operational costs, taking advantage of opportunities to implement new technology to achieve fuel conservation and reduced emissions, promoting safety, reliability and operational efficiencies, and enhancing the public image of the Town's fleet.

## 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.

#### **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 and costly duplication is avoided. 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 FY2017 - FY2021 Capital Improvement Program and its associated FY2017 Capital Budget involves active participation by the Town Manager, Assistant Town Managers, and requesting departments. 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 9, 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. Members of the Board of Selectmen and Finance Committee and Community Preservation Committee Liaisons are invited to participate in these meetings.
- *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* — 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 departmental budgets, or the actual turn back, whichever is lower. The recommended plan includes \$2,464,117 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 9. 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 \$625,131 in funding from the enterprise fund retained earnings accounts for fiscal year 2017 (RTS - \$215,927, Sewer- \$63,525, Water - \$345,679).

*Debt* – The Board of Selectmen's debt management policies (Section 9) 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 \$750,000 in projects to be funded through General Fund

debt, and \$269,000 to be funded through Enterprise Fund debt in fiscal year 2017.

*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 \$1,158,500 in projects contingent upon Community Preservation Funding in fiscal year 2017.

*Other Available Funds* – From time to time there are capital projects funded by cash for which the work has been completed, all the bills paid, and for which no other encumbrance remains. These funds are available for repurposing by Town Meeting. This plan includes \$52,000 in funding from Other Available Funds in the General Fund category and \$32,408 in Other Available Funds in the Enterprise Fund category in fiscal year 2017.

### **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 is defined as committing necessary resources to preserve, repair, or adaptively re-use current assets. Expenditures for asset preservation are intended to keep the physical plant and infrastructure in reliable operating condition for their present use. While significant investment in many capital facilities is still required and, in some cases, 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 2 ½ 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. Table 2 shows the Town's investment in facilities and infrastructure over the past five years.

**Table 2  
Facility and Infrastructure Investment  
2012 to 2016**

Description	2012	2013	2014	2015	2016	Total	Average
Municipal Facilities	\$8,075,000	\$40,000	\$2,771,500	\$105,779	\$90,000	\$11,082,279	\$2,748,070
Townwide Facilities and Community Services	\$622,500	\$1,247,315	\$951,828	\$750,219	\$3,513,323	\$7,085,185	\$892,966
Public Works Infrastructure Program	\$1,300,000	\$6,128,000	\$600,000	\$1,760,000	\$3,453,500	\$13,241,500	\$2,447,000
School Facilities	\$1,078,000	\$85,000	\$4,292,276	\$200,000	\$9,368,000	\$15,023,276	\$1,413,819
Drains, Sewer, and Water Infrastructure	\$8,269,500	\$1,079,300	\$7,670,900	\$1,283,050	\$2,320,500	\$20,623,250	\$4,575,688
<b>Total Appropriations</b>	<b>\$19,345,000</b>	<b>\$8,579,615</b>	<b>\$16,286,504</b>	<b>\$4,099,048</b>	<b>\$18,745,323</b>	<b>\$67,055,490</b>	<b>\$12,077,543</b>

## 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 FY2012 through FY2016.

**Table 3  
Equipment, Technology, & Fleet Capital  
2012 – 2016**

Description	2012	2013	2014	2015	2016	Total	Average
All Other Functions			\$146,250		\$30,645	\$176,895	\$35,379
Public Facilities & Works	\$259,063	\$235,000	\$480,100	\$29,797	\$144,000	\$1,147,960	\$229,592
Public Safety		\$40,000	\$27,500			\$67,500	\$16,875
Public School	\$119,700	\$155,200	\$176,145	\$112,000	\$108,145	\$671,190	\$134,238
<b>Equipment</b>	<b>\$378,763</b>	<b>\$430,200</b>	<b>\$829,995</b>	<b>\$141,797</b>	<b>\$282,790</b>	<b>\$2,063,545</b>	<b>\$416,084</b>
All Other Functions	\$145,000	\$160,000	\$30,000	\$130,000	\$30,000	\$495,000	\$99,000
Public Facilities & Works				\$33,000	\$129,500	\$162,500	\$32,500
Public Safety	\$112,496			\$408,615		\$521,111	\$130,278
Public School	\$49,100	\$672,800	\$633,800	\$679,325	\$403,000	\$2,438,025	\$487,605
<b>Technology</b>	<b>\$306,596</b>	<b>\$832,800</b>	<b>\$663,800</b>	<b>\$1,250,940</b>	<b>\$562,500</b>	<b>\$3,616,636</b>	<b>\$749,383</b>
All Other Functions	\$52,000					\$52,000	\$10,400
Public Facilities & Works	\$966,500	\$895,618	\$1,011,000	\$343,572	\$1,146,902	\$4,363,592	\$872,718
Public Safety	\$400,000	\$785,000	\$94,242	\$248,267		\$1,527,509	\$305,502
Public School							
<b>Fleet</b>	<b>\$1,418,500</b>	<b>\$1,680,618</b>	<b>\$1,105,242</b>	<b>\$591,839</b>	<b>\$1,146,902</b>	<b>\$5,943,101</b>	<b>\$1,188,620</b>
<b>Total Appropriations</b>	<b>\$2,103,859</b>	<b>\$2,943,618</b>	<b>\$2,599,037</b>	<b>\$1,984,576</b>	<b>\$1,992,192</b>	<b>\$11,623,282</b>	<b>\$2,354,087</b>



## **Project Summaries – Recommended Projects for Fiscal Year 2017**

### **GENERAL GOVERNMENT**

There are no General Government projects recommended for fiscal year 2017.

### **PUBLIC SAFETY**

#### **POLICE & FIRE DEPARTMENT EXPANSION & RECONSTRUCTION FEASIBILITY STUDY**

The Police/Fire Station ("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. Areas for review during the feasibility study in the Police Department include: locker space for female officers is not adequate to meet existing and future needs; the evidence and property storage space is not sufficient; interview space and interview recording requirements must be expanded and improved to comply with current standards; there is limited space available for members of the Department to meet with the public; space is insufficient for a combined public safety dispatch center; and holding cells do not meet standards. Areas for review in the Fire Department include: apparatus bays are too small for modern fire trucks; the maintenance garage is too small to perform routine maintenance work; certain areas are not accessible to the public; the existing office space is insufficient for the needs of administrative staff; and storage space is not sufficient. Files, plans and permits are split between two small unsecured basement spaces; and

the hose tower is no longer necessary due to modern day equipment. The study will include a review of the operational needs of both departments, facility assessment, assessment of spatial needs within existing/ expanded facility, an alternative study for demolition and rebuilding of a new facility, consideration of phasing/swing space, and a cost comparison of addition, renovation or rebuilding. *(Submitted by: Police Department)*

The Town Manager's recommendation for Police & Fire Expansion/Reconstruction Feasibility Study is \$90,000 in the cash capital category.

### **PUBLIC SCHOOLS**

#### **SCHOOL COPIER REPLACEMENT**

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 FY2017 request will replace four 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. This analysis assumes that copiers are re-deployed around the District, as needed, to match copier use with equipment capacity. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Copier Replacement is \$39,330 in the cash capital category.

### **SCHOOL FURNITURE**

This request continues the replacement cycle for school furniture in poor and fair condition at Hillside, Mitchell, Newman and Pollard. In these schools, furniture is 10-20+ years old and in a state of disrepair after decades of heavy use. As of FY2015, all furniture in poor condition has been replaced at these schools. The FY2017 funding request will continue the replacement of furniture in fair condition at these schools, and will allow for the purchase of furniture needed for enrollment growth. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Furniture is \$45,000 in the cash capital category.

### **TECHNOLOGY REPLACEMENT**

This request is for funding to purchase School Department technology, including computers, printers, and servers. Also included in the request are funds for infrastructure upgrades to the School Department data network. The FY2017 request of \$648,450 represents a \$196,750 increase over the FY2017 projection submitted previously in the FY2016-2020 CIP. Of the \$648,450 requested, only \$307,750 meets the Town's definition of capital to be eligible for funding in the CIP. The \$196,750 increase requested in FY2017 consists of \$159,750 in hardware replacement, \$31,000 in elementary network wiring and \$6,000 in new Audio Visual equipment.

The FY2017-2021 School Technology request includes several changes from prior years. One change is the reconfiguration of the K-5 technology model from a desktop computer-based model to a digital device model. The

current model for technology is one teacher desktop computer and two to three student desktop computers per classroom, all of which are hard-wired to the network. In addition, classrooms in Grades 1-5 contain an interactive whiteboard (IWB). Most of the current student desktops are between five and ten years old and are not capable of running today's current web applications. The new elementary model classroom consists of a teacher laptop, three classroom Digital Learning Devices (DLDs) and an IWB. The DLDs would be connected to a wireless network. The new model includes one or two shared carts of DLDs per school for class project and school-wide testing purposes. The FY2017 CIP allocates \$178,000 to purchasing the DLD devices.

To support the new DLD technology model the elementary classrooms need access to a sufficient wireless network. The FY2017 CIP increase includes \$78,500 in funding for networking (\$31,000) and wireless hardware (\$47,500) for the Hillside and Mitchell Schools.

The FY2017-2021 School technology request reflects a plan for replacing IWBs throughout the District. While the industry standard replacement cycle is five years, the plan includes funds to maintain a six-year cycle, which requires the replacement of approximately 30 IWB/year. The average cost of replacing an IWB is \$5,000.

The FY2017-2021 request includes funds to implement a pilot 1 to 1 (BYOD) initiative at Needham High School at a cost of \$35,000 for 100 DLDs. There is \$35,000 in the FY2017 CIP request to purchase 100 DLDs to pilot 1 to 1 (BYOD) at the High School.

Finally, the District is proposing to change the replacement cycle for school technology, to remain consistent with the new DLD model. Currently, desktop devices are replaced on a seven-year (or more) cycle. The FY2017-FY2021 CIP

request reflects a shorter, three-year replacement cycle for DLDs (reflecting their shorter lifespan) and a four-year cycle for teacher laptops. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Technology Replacement is \$307,750 in the cash capital category.

### **HIGH SCHOOL CLASSROOM EXPANSION ALTERNATIVES FEASIBILITY STUDY**

This project will provide funding to study classroom expansion alternatives at Needham High School. The District has determined that there is a need to add classroom space at Needham High School to support the anticipated student population increase above the design capacity of the school. Since 2008, several spaces at NHS have been repurposed to function as classrooms, however the number available is below the identified need. The October 2014 Special Town Meeting approved \$200,000 to subdivide two large classroom spaces into four classrooms. In addition, the School Committee has been evaluating several possible construction options, including the construction of six modular-type classrooms near the epicenter of the school and in close proximity to the academic core. In response to concerns about the overall cost and affordability of the proposed project, the School Department has requested \$50,000 to study possible alternatives involving the creation of administrative and storage space to enable further conversion of space within the academic areas to classroom use and/or the construction of classroom space in other areas of the building. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for High School Classroom Expansion Alternatives Feasibility Study is \$50,000 in the Tier 1 cash capital category.

### **POLLARD MIDDLE SCHOOL LOCKER REPLACEMENT**

The current lockers at the Pollard school are too small to accommodate the storage needs of the modern student population. The width of the existing lockers is only 6" - the proposed replacement lockers are 12" wide. In FY2016, half of the lockers (600 units) were replaced. This funding will complete the locker replacement project at the Pollard School, which is not scheduled for renovation or reconstruction in the near term. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for Pollard Middle School Locker Replacement is \$41,157 in the cash capital category.

### **HIGH SCHOOL GYM UPGRADE**

The High School A Gym was not included in the 2009 renovation project. The bleachers are beyond their useful life and are proposed for replacement in FY2017. The bleachers that are currently installed are difficult to maintain and use, requiring frequent repair. Future projects proposed for the A Gym include lighting replacement in FY2018, and flooring and equipment reconfiguration in FY2019 and FY2020. This gym is a high demand space and is in constant use by the Schools and community. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for High School Gym Upgrade is \$130,557 in the cash capital category.

## **PUBLIC WORKS**

### **FUEL ISLAND RELOCATION & UPGRADE DESIGN**

The Town is reliant on the fuel dispensing system at the DPW for the majority of its diesel vehicles and all of its gasoline vehicles. Currently DPW, Fire Department, School Department, and other Town vehicles rely on this filling station. As of September 1, 2013, the DPW filling location became the sole location for Police Department vehicles. The Police Department consumes a large volume of gasoline, and the new reliance on this station represents a dramatic increase over previous demand. The reasons for relocation and replacement of the system include the general age and condition of the station, the location of current station (including its proximity to wetlands and groundwater table, susceptibility to flooding, and compatibility with the potential expansion of the DPW operations building), inadequate access and maneuverability, and insufficient capacity. This funding request supports the design of the relocation and replacement of the gas/diesel island. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Fuel Island Relocation & Upgrade is \$131,000 in the cash capital category.

### **DRAIN SYSTEM IMPROVEMENTS – WATER QUALITY/ROSEMARY LAKE SEDIMENT REMOVAL ENGINEERING & DESIGN**

The Town has been systematically addressing the quality of water contributing to Rosemary Lake to prevent additional pollutants from entering the water body. This request will remove the contaminants that have already entered the system over time. The Town is under a legal obligation to improve impaired water bodies. Rosemary Brook, which is

directly fed by Rosemary Lake, is one of five "Category Five" (impaired) water bodies in the Town. This project will support the dredging of Rosemary Lake. The sediment at the bottom of the Lake is impaired due to the accumulation of roadway pollutants. The Lake is suffering from low dissolved oxygen levels, nutrient loading (fertilizers), bacteria, and road contaminants, which are problematic to the ecosystem of the Lake and adjoining brook. The project will consist of removing the impaired sediment (estimated to be 15 inches thick) from the Lake. This project is being planned in conjunction with the Rosemary Recreation Complex renovation project, as the draining of the Lake to remove sediment may have a positive impact on the construction method selected for the replacement of the pool. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Drain System Improvements – Water Quality is \$118,000 contingent on Community Preservation Funding.

### **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 ensure the structural and surface integrity of the Town's 123 linear miles of accepted streets. 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 average useful life for asphalt paving is 15 years; target funding for street resurfacing in FY2017 is \$621,000.

Traffic Signal & Intersection Improvements This program funds traffic signal improvements and intersection improvements, and new traffic signal installations where none currently exist. No funding is targeted for this program in FY2017.

Sidewalk Program This Program funds improvements to the network of sidewalks throughout the community. There are over 160 miles of accepted sidewalks in Needham, and more than half do not comply with current standards and require significant improvements including the installation of handicapped ramps. All sidewalk improvements must comply with Federal and State laws and construction standards. Current estimates have identified over \$20,000,000 in backlogged sidewalks in need of repair. The average useful life for asphalt sidewalk is over 30 years. Unless circumstances dictate otherwise, the target funding for the sidewalk program in FY2017 is \$404,000.

Storm Drain Capacity Improvements This program provides funding to improve roadway drainage capacity. The Town's Stormwater Master Plan has 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. Since the issuance of the Stormwater Master Plan, numerous multi-unit developments have been built or are planned in the Town. 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. Unless circumstances dictate otherwise, FY2017 funding is targeted for Taylor Street / Central Avenue – Engineering (\$32,500) and Hunnewell Street/Ardmore Road Engineering, Design & Construction - \$437,500).

Storm Drain System Repairs This request is to replace drainage infrastructure within Town easements that are discovered through investigation work. This request is part of the Town's plan to identify and improve drainage throughout the Town. This funding will allow the Department to replace a badly damaged 100 foot section of 18" reinforced concrete drain pipe within a Town easement adjacent to 470 South Street. This replacement includes extensive wetland consulting and permitting which is a major factor in the cost of this project. Unless circumstances dictate otherwise, FY2017 funding is targeted for 470 South Street/Construction (\$80,000) and for various locations to upgrade or repair the system (\$25,000).

Brooks and Culverts – Repair and Maintenance The increasing number of severe storms has resulted in numerous complaints and subsequent investigations of the Town's brooks, streams and culverts. The Brooks & Culverts Program will address 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. Such repairs require detailed investigation, plan of recommended improvements, design drawing and specifications, environmental permitting

and bidding of construction to be overseen by the Town's Engineering Division. This will eventually return the waterways to a condition that the DPW will be able to maintain. The 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 brooks and culverts. Unless circumstances dictate otherwise, FY2017 funding is planned for continued wall repair in various locations (\$100,000). *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for the Public Works Infrastructure Program is \$750,000 in the debt financing category and \$950,000 in the cash capital category.

## **PUBLIC FACILITIES**

### **PUBLIC FACILITIES ENERGY EFFICIENCY UPGRADE IMPROVEMENTS**

The Public Facilities Department completed an engineering study for energy upgrades at ten key buildings in 2011. An Energy Efficiency Upgrade Improvements plan was implemented after the results of the study illustrated that the Town's investment in selected and recommended energy upgrades would pay for themselves within 10 years. Unless circumstances dictate otherwise, fiscal year 2017 funding will be allocated to retro-commissioning the HVAC controls at the High School, and replacing parking lot HID lighting with LED lighting at the High Rock School, Public Safety Building, and the High School. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for the Public Facilities Energy Efficiency Upgrade Improvements is \$38,154 in the cash capital category.

## **COMMUNITY SERVICES**

### **MEMORIAL PARK BUILDING & GROUNDS FEASIBILITY STUDY**

This funding will support a full review of the Memorial Park Building and grounds, leading to recommendations for the renovation and/or reconstruction of the building to meet the current needs of the park and the community. The current facility has storage located on the lower level, and public restrooms accessed from the exterior. On the upper level, there are two meeting spaces, a kitchenette, restrooms and storage rooms. The 2014 Facilities Master Plan anticipated that community needs would likely require construction of a new building, with rooms directly related to the use of the park (meeting rooms, restrooms, concession, storage) as well as upper floor space to meet other community recreation needs. *(Submitted by: Memorial Park Trustees)*

The Town Manager's recommendation for Memorial Park Building & Grounds Feasibility Study is \$50,000 in the Cash Capital Category.

### **ATHLETIC FACILITY (MEMORIAL PARK) RECREATION IMPROVEMENTS**

This project is intended to address drainage issues at Memorial Field Complex, by capturing storm water as it enters the field complex from the up-gradient surfaces at the High School. The goal is to capture as much of the water as possible before it reaches the playing fields below. Once captured, the storm water will be directed to perforated drainage pipes embedded in gravel within the lower parking lot. Under certain conditions, the existing draining system is overwhelmed, and the natural grass fields become water logged, leaving them in a weakened state and subject to disease and weed and insect infestation. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Memorial Park Recreation Improvements is \$490,500 contingent on Community Preservation Funding.

**ROSEMARY RECREATION COMPLEX DESIGN**

The Town of Needham has had a public outdoor swimming facility at Rosemary Lake since the 1930's. In the late 1960's, it was determined that the Lake did not meet water quality standards for swimming, so the pool was constructed as a temporary measure in 1972. The permit to allow the Town to perform routine annual maintenance will not be allowed after September 2016. The Park and Recreation Commission is recommending a facility with two seasonal pools – recreation and competition/fitness. The ideal building and site would have features for year round use. The Commission has been working with the PPBC and BH+A Architects to design the new facility. Initial work has developed the current concept for a seasonal pool with a building for pool functions and year-round programming space, as well as parking improvements. The additional design funds will carry the project through multiple permitting processes, the creation of construction documents, and construction oversight. *(Submitted by: Park & Recreation)*

The Town Manager's recommendation for Rosemary Pool Complex Renovation is \$550,000 contingent on Community Preservation Funding.

**GENERAL FUND FLEET REPLACEMENT PROGRAM**

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 200 vehicles,

trailers, and large specialized attachments. General purpose vehicles include pickup trucks, a variety of sedans, SUV's, vans, and police vehicles (75). They comprise approximately 37 percent of the entire fleet. General purpose vehicles are utilized in every department and are relatively interchangeable. The replacement of these vehicles can proceed on a regular schedule and should be considered part of the Town's base 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 of the other 40 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 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)*

**CORE FLEET REPLACEMENT**

Unit/Division	Year	Replacement	Amount
120/Highway	2004	Utility Trailer	\$23,031
706/PFD	2006	Econoline Van	\$35,073
C2/Fire	2010	Ford Expedition	\$56,635
C3/Fire	2008	Ford Explorer	\$46,116
C43/Fire	2013	Ford Explorer	\$35,123
404/HHS	2004	Ford 350 Van	\$87,354

**FLEET REPLACEMENT - SPECIALIZED EQUIPMENT**

Unit/Division	Year	Replacement	Amount
47/Highway	2007	10 Wheel Dump	\$223,109
70/Parks	2009	F550 Dump	\$68,363
71/Parks	2009	F550 Dump	\$68,363

## **FLEET REPLACEMENT - SNOW AND ICE EQUIPMENT**

There are no Fleet Requests for this Category in FY2017.

The Town Manager's recommendation for General Fund Replacement is \$643,169 in the cash capital category.

## **RECYCLING/TRANSFER STATION (RTS) ENTERPRISE FUND**

### **REFURBISH SWAP LOADER WITH ATTACHMENTS**

This article will address two operational concerns at the RTS. The packer truck at the RTS is five years old – half of its estimated life – but requires numerous repairs due to the nature of the piece of equipment. The Town has had to rent a packer during down times, with corresponding delays in service. Additionally, there is a need for a more efficient watering system at the RTS to minimize the dust onsite and to aid in the composting process by keeping the compost wet in summer months so it can continue to process. These two needs can be addressed with the conversion of existing unit #5 (a 2011 Six Wheel Dump Truck) into a Swap Loader truck. Unit #5 will be converted and both a Packer body and water tank body will be purchased. This will increase the utilization of unit #5 and address the two pressing operational issues without the need to expand the RTS equipment inventory. The Swap Loader truck can be used with the proposed packer body while the existing Packer truck is being serviced or repaired, and can provide additional collection capacity during busy times of the year and during special events when additional trash pick-up is required. The proposed mobile water tank body will be utilized during those spring, summer and fall months when the compost area is dry and in need of dust control to prohibit dust from interfering with operations. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Refurbishing Swap Loader with Attachments is \$120,000 funded by RTS Retained Earnings.

### **FLEET REPLACEMENT – SPECIALIZED EQUIPMENT**

Unit/Division	Year	Replacement	Amount
104/RTS	2007	Front-End Loader	\$269,000

*(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Fleet Replacement – RTS is \$269,000 in the RTS Enterprise Fund debt financing category.

### **RTS PROPERTY IMPROVEMENTS**

This article will fund improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve functionality. FY2017 funding is proposed for the installation of anti-litter fencing (\$32,000) and the replacement of a retaining wall (\$36,000). The fencing project includes the installation of 850 linear feet of anti-litter fencing to reduce the amount of litter that is blown out of the facility onto the street and across Central Avenue to Claxton Field and the Town Forest. The fencing will significantly reduce or negate the need for staff to clean up Claxton Field or enter the wetlands to remove litter. The foundation walls at the rear of the transfer station are steep and held in place with an engineered Gabion retaining wall system (a wire mesh filled with rock). The wall is starting to fail as the wire mesh is coming apart. To repair the retaining wall and replace it with a new interlocking concrete block system, the existing Gabion system will be removed, the site prepared for the new wall, and new concrete installed. *(Submitted by: Department of Public Works)*



The Town Manager's recommendation for RTS Property Improvements is \$68,000 funded by RTS Retained Earnings.

### **RTS STORMWATER PLAN**

The Recycling and Transfer Station (RTS) composting operation is presently operating pursuant to a Conservation Commission Negative Determination of Applicability (NDA). This NDA was put in place as a result of potential 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. In order to be compliant with the NDA this project will include the design of a silt detention basin at the compost area, the design of 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, design of the regrading of the materials processing area to ensure that all stormwater runoff is diverted from the wetlands, design of a stormwater management collection system for the proposed paving of the road behind the Salt Shed, and investigation and design of the drainage system adjacent to the Salt Shed. (Submitted by: Department of Public Works)

The Town Manager's recommendation for RTS Stormwater Plan is \$22,073 in Available Funds and \$27,927 funded by RTS Retained Earnings.

## **SEWER ENTERPRISE FUND**

### **SEWER MAIN EXTENSION ZONE 1 & 2 DESIGN**

There are eight homes with private septic systems in Needham that are within Massachusetts Department of Environmental Protection's Zone II areas. The Town has

prioritized the extension of the sewer system to allow these homes to connect as part of its aquifer protection mandate. 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 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 would potentially be affected by nearby septic systems. All three of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems, and extending the sewer main to allow access to homes within Zones I & II will reduce this risk. The sewer main ends at 827 Charles River Street, and the extension would run from 828 Charles River Street to Winding River Road and extend 712 feet up Winding River Road. This new sewer main will allow five homes that are currently on septic systems to connect to the Town sewer, subject to a betterment fee. FY2017 funding will support the design of 712 linear feet of 8" gravity sewer pipe installation and five sewer manholes. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Sewer Main Extension Zone 1 & 2 Design is 10,335 in available funds and \$63,525 to be funded by Sewer Retained Earnings.

## **WATER ENTERPRISE FUND**

### **FIRE FLOW IMPROVEMENTS STUDY**

The Water System Master Plan has identified fire flow adequacy as a priority improvement. A fire flow adequacy analysis was conducted under maximum daily demand that determined that the existing system is unable to meet the minimum 20 pounds per square inch of pressure (psi) in the higher elevations of Town – Tower Hill and Birds Hill. The

proposed feasibility study will provide options for meeting the minimum psi level in the most cost-effective manner. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Fire Flow Improvements Study is \$20,000 funded by Water Retained Earnings.

**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 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. Prior appropriations are currently under contract with water service connection replacements estimated to be one and one half years ahead of the road resurfacing program. The FY2017 funding will provide approximately one year's value of water service replacements, which will fall in line with the road resurfacing program schedule. System wide, there are approximately 1,100 services that still need to be replaced in the system. *(Submitted by: Department of Public Works)*

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

**WATER SYSTEM REHABILITATION PROGRAM DESIGN**

Water infrastructure requires ongoing attention and periodic replacement, and portions of the Town's water infrastructure are 75+ years old and approaching the end 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. Unless circumstances require otherwise, FY2017 funding is intended for engineering and design for a new 8" main for Alfreton Road from Highland Avenue to Webster Street (500 l.f.), engineering and design for a new 8" main on Bennington Street from High Street to Concord Street (650 l.f.), and engineering and design for a new 8" main on Country Way (1,200 l.f.). *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water System Rehabilitation Design is \$82,000 to be funded by Water Retained Earnings.

**ENTERPRISE FUND FLEET  
 REPLACEMENT PROGRAM**

**CORE FLEET REPLACEMENT**

<u>Unit/Division</u>	<u>Year</u>	<u>Replacement</u>	<u>Amount</u>
26/Water	2011	F150 to F250	\$43,679

*(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Enterprise Fund Core Fleet Replacement is \$43,679 funded by Water Retained Earnings.