

FY 2017-2022 CIP PROJECT DESCRIPTIONS

NOTE: The figures included in this report are based on the best available cost estimates at the time of the development of the CIP and are subject to change due to revised estimates and bids.

GENERAL GOVERNMENT

1. GARAGES - FLOOR SEALANT & WATER/OIL SEPARATORS

In order to maintain the integrity of the concrete floors in garages, proper maintenance is required, including removing and refinishing the seal coat on those floors. The floors can deteriorate over time due to chemicals, normal wear and tear, cracks and unforeseen conditions. This project would remove and clean the surface of those floors, make any concrete patches, and provide a seal coat to maintain the floor, which should last for 5 - 10 years. All new garages should have water/oil separators. This program would add to or modify existing systems and add new systems, thereby allowing the Town to meet the environmental needs of the DEP and EPA.

Estimated Cost: \$125,000

Time Schedule: Prior Year -- \$125,000 Property Tax / Free Cash

2. GARAGES AT LARZ ANDERSON

The fuel tank located on site is not used anymore and should be removed, along with the gas pumps, in order to avoid a possible leak in the future.

Estimated Cost: \$125,000

Time Schedule: FY 2020 -- \$125,000 Property Tax / Free Cash

3. GARAGE REPAIRS / TOWN HALL/PIERCE SCHOOL PHASE 4

With Phases 1-3 now complete, a few remaining miscellaneous items are left to repair. These include a leak in the Pierce Garage from the area outside the Main Office of Pierce, the overhang/balcony area above the Pierce Driveway which is leaking and needs masonry work, the Town Hall lower garage needs to have the drain pipes that go through it from above re-piped to area that have drains, a main drain in the Town Hall Garage that comes from the Pierce above needs to be re-piped as it is broken and there is a drainage issue behind the Main Library that goes into the driveway and ultimately water drain into the Town Hall Garage.

Estimated Cost: \$300,000

Time Schedule: FY 2017 -- \$300,000 Property Tax / Free Cash

4. TOWN BUILDING FURNITURE

This item allows for the replacement of aging furniture at Town Hall and other non-school buildings.

Estimated Cost: \$100,000

Time Schedule:

Prior Year -- \$25,000	Property Tax / Free Cash
FY 2017 -- \$25,000	Property Tax / Free Cash
FY 2020 -- \$25,000	Property Tax / Free Cash
Future Years -- \$25,000	Property Tax / Free Cash

5. TECHNOLOGY APPLICATIONS

This annual appropriation is for funding the projects included in the Information Technology Department's Long-Term Strategic Plan, which serves as the framework for the selection and management of technology expenditures and is updated periodically by the Chief Information Officer (CIO). Moreover, additional projects that meet the short-term objectives set by the CIO and appropriate committees provide the guidance for the Town's approach to technology management. Primary focus areas for IT investments include Infrastructure lifecycle replacement, Enterprise Applications/Better Government initiatives, School Technology, and Public Safety enhancements. Special consideration is given to projects that reduce operating expenses and / or create efficiencies.

Estimated Cost: \$1,670,000

Time Schedule:

Prior Year -- \$270,000	Property Tax / Free Cash
FY 2017 -- \$275,000	Property Tax / Free Cash
FY 2018 -- \$175,000	Property Tax / Free Cash
FY 2019 -- \$180,000	Property Tax / Free Cash
FY 2020 -- \$185,000	Property Tax / Free Cash
FY 2021 -- \$190,000	Property Tax / Free Cash
FY 2022 -- \$195,000	Property Tax / Free Cash
Future Years -- \$200,000	Property Tax / Free Cash

6. DATA ROOM UPGRADES

The Town's utilization of technology to operate, educate and communicate will continue to increase and, subsequently, the need for guaranteed stability and reliability in the information technology infrastructure will be of paramount importance. The current operation relies upon four primary data centers in which over \$1,000,000 of IT equipment is located. In order to maintain efficient and consistent operation of this critical infrastructure, investment in adequate power and cooling is essential for 7 day per week/24 hour per day availability. This project requests the necessary monies to ensure proper power and cooling capabilities as outlined by an outside consultant and jointly agreed upon by the Building and IT departments.

Estimated Cost: \$200,000

Time Schedule:

Prior Year -- \$200,000	Property Tax / Free Cash
-------------------------	--------------------------

PLANNING & COMMUNITY DEVELOPMENT

7. GATEWAY EAST / VILLAGE SQUARE CIRCULATION IMPROVEMENTS

This significant public works project involves reconfiguration of the existing circulation system in Brookline Village at Washington Street, Route 9, Walnut Street, High Street, and Pearl Street. The existing jughandle, currently used to provide access to Washington Street from Route 9 eastbound, will be removed and replaced with a new four-way intersection at Pearl Street. Signals will be relocated and upgraded and a new ADA-compliant surface-level pedestrian crosswalk with walk signal will cross Route 9 just west of Pearl Street as part of a new four-way intersection, replacing the demolished pedestrian bridge that had once provided a protected crossing on Route 9. In addition, enhanced bicycle accommodation via protected bicycle lanes as well as lighting and landscaping improvements will be made in the area, improving the overall safety and aesthetics of this portion of Route 9 and Brookline Village. Funding for the project is assumed to come from multiple sources:

Funding for the project is assumed to come from multiple sources:

1. Transportation Improvement Program (TIP) – this State-managed program is assumed to grant \$4,818,000 in Federal Fiscal Year 2017 toward a \$5,818,000 construction project, leaving a deficit of \$1,000,000 (to be filled by Children’s \$750,000 and \$250,000 in CDBG funds—as follows)
2. \$750,000 as part of the 1% of off-site improvements related to the re-development of 2 Brookline Place site by Children's Hospital (construction or right-of-way acquisition)
3. \$250,000 in FY 17 CDBG (construction)
4. \$500,000 SAFETEALU earmark (construction)
5. \$750,000 Section 108 Loan (right-of-way acquisition) - It should be noted that the Town previously sought and received Town Meeting authorization to utilize a Section 108 loan, which is a tool that can be used to undertake CDBG-eligible activities when a lump sum is needed to move a project forward. The Town may once again seek authorization from Town Meeting to secure a Section 108 loan as a funding source to pay for the acquisition of needed permanent and temporary right-of-way to accommodate the Gateway Est project. Under a Section 108 loan, a community borrows against its future CDBG funds. Like a conventional loan, the Section 108 loan would have an amortization term, but instead of making payments, the Town's loan is paid back once per year off the top of its CDBG entitlement. The loan must be backed by the Town’s full faith and credit.

Please note that the right-of-way acquisition costs are preliminary estimates. Under State statute, the Town may not discuss acquisition costs with property owners until we have an approved 25% design. Similarly, construction estimates are being revised since the project has been modified.

Estimated Cost: \$7,068,000

Time Schedule:	Prior Year -- \$750,000	Other (1% Off-Site Improvements--2 Brookline Place)
	FY 2017 -- \$4,818,000	Federal Grant (via State TIP)
	FY 2017 -- \$250,000	Federal Grant (CDBG)
	FY 2017 -- \$500,000	Other SAFETEALU earmark (construction)
	FY 2017 -- \$750,000	Federal Grant (CDBG) Section 108 Loan

8. COMMERCIAL AREAS IMPROVEMENTS

This annual appropriation is intended to fund projects detailed in the Economic Development Division’s Strategic Plan, which serves as the framework for the selection and management of Commercial Area Improvements and is updated periodically by the Economic Development Advisory Board (EDAB). Maintaining healthy, local commercial areas affects the quality of life and adds much needed support to the Town’s tax base. Investment toward easy to use and attractive streets, pedestrian amenities, and other civic spaces makes our commercial areas more enjoyable to live, shop, dine, and work.

Estimated Cost: \$425,000

Time Schedule:

FY 2019 -- \$125,000	Property Tax / Free Cash
FY 2021 -- \$150,000	Property Tax / Free Cash
Future Years -- \$150,000	Property Tax / Free Cash

9. STRATEGIC ASSET PLAN

The Town intends to hire a consultant to develop a Strategic Asset Plan to focus on public facilities in order to:

- 1.) consolidate all information relative to real property owned by the Town;
- 2.) determine and address any gaps in that information;
- 3.) identify current and projected needs for municipal facilities and services;
- 4.) develop strategies to respond to those needs be it new or expanded municipal buildings, active or passive open space, multiple municipal-use facilities, infrastructure, land banking, etc.; and
- 5.) identify any parcels that may be appropriate for redevelopment opportunities.

The Town is well on its way to developing a Strategic Asset Plan; in fact, the CIP itself is testament to the Town’s commitment to taking a comprehensive and long-term approach to protecting the Town’s assets. Ultimately, the Plan would go beyond the five-year CIP model and be incorporated into the Comprehensive Plan, consistent with MGL Chapter 81D, and inform the “Planning Analysis of Large Properties” study in terms of municipally-owned properties.

Estimated Cost: \$75,000

Time Schedule: Prior Year -- \$75,000 Property Tax / Free Cash

10. MAJOR PARCEL STUDY

The town is essentially – but certainly not completely – built-up. Simultaneously, as a highly desirable community in which to live and invest, Brookline is subject to intense residential development pressure. The Town needs to be concerned that major privately-owned parcels, most of which are currently in institutional and/or non-profit use, may eventually succumb to that pressure and be developed. Most of these parcels are zoned for one-acre single-family housing essentially as-of-right or under Definitive or Approval Not Required Subdivision. Development of these parcels could dramatically reduce the amount of green space as well as potentially have significant effects on our facilities, thereby generating major fiscal impacts. Single-family homes on one acre lots may or may not be the best use for the property. Starting with the vision articulated in our Comprehensive Plan,

combined with long-term needs identified in our Strategic Asset Plan, we, as a town, need to think about what we want to see on those privately-owned parcels. While the preponderance of the study will focus on privately-held property, it will also address any municipally- owned property that the Strategic Asset Plan may have identified as underutilized or unneeded.

There should not be any preconceived notions about the best reuse options for any of the sites, be it housing in any number of configurations (single-family, senior housing, affordable housing, multi-family, etc.), green space, mixed use or commercial use. Consulting services are necessary to take a comprehensive approach to identifying the optimum use for each of these properties and how best to encourage those uses. This requires extensive work with both the property owners and the public to determine what is both desirable and achievable and then to balance those needs.

Estimated Cost: \$100,000

Time Schedule:

FY 2017 -- \$100,000 Property Tax / Free Cash

11. CENTRE ST. EAST PARKING LOT / HARVARD ST. STUDY

The Centre Street East parking lot needs significant renovations in terms of curbing, pavement, and associated improvements, which are already programmed in the CIP. The commitment to address these needs provides an opportunity for the Town to identify and then integrate other needs confronting Coolidge Corner into planning for the parking lot, thereby promoting an efficient use of the publicly owned parcel. Based on a preliminary Reconfiguration Study of the parking lot conducted in early 2014, the Town intends to hire a consultant to further develop conceptual plans, including a cost estimate and potential parking revenue designed to:

- 1.) improve pedestrian and/or bicycle accommodations and expand usable public spaces on Harvard Street between Beacon and Stedman Streets;
- 2.) create a public plaza space within the Centre Street East parking lot that could accommodate events such as the Farmers' Market;
- 3.) include a low (1-3 level) decked parking structure to replace any parking spaces lost as a result of the above;
- 4.) effect the necessary improvements proposed by DPW; and
- 5.) include a feasibility analysis to incorporate solar infrastructure into the parking facility. Ideally, the deck could accommodate temporary school employee parking when the Devotion School is under construction (Spring 2018).

Estimated Cost: \$100,000

Time Schedule:

Prior Year -- \$100,000 Property Tax / Free Cash

12. RIVERWAY PARK PEDESTRIAN / BICYCLE PATH IMPROVEMENTS

There has been interest for years in a safer crossing for pedestrians and bicycles at Route 9 and the Riverway. Since the DPW completed the construction of a bike/pedestrian path in Olmsted Park, there has been increased use

of this park by pedestrians and bicyclists. The path ends at the intersection with Washington Street with no means of crossing Washington Street except at the Brookline Avenue intersection. The State Department of Conservation and Recreation (DCR) commissioned a study to look at viable methods of crossing Washington Street, both in Brookline and Boston.

The Gateway East Public Realm plan developed a preferred solution for this crossing, involving a widening of the median, reconfiguring existing traffic lanes, and a marked crossing. The Selectmen-appointed Emerald Necklace Crossing Committee came to consensus on a preferred crossing alternative for a signalized crossing at Olmsted Park and River Road at Route 9. The design process is still underway and once design plans are complete, the project will access funds from a federal transportation bill earmark (\$675,000) for construction. In addition, \$625,000 in State grants and \$200,000 in CDBG funds are anticipated in FY17 for construction.

Estimated Cost: \$1,500,000

Time Schedule:

FY 2017 -- \$675,000	Federal-Grant
FY 2017 -- \$200,000	Federal Grant-(CDBG)
FY 2017 -- \$625,000	State-Grant

PUBLIC SAFETY

13. PUBLIC SAFETY DISPATCH (CAD) STUDY

The current Computer Aided Dispatch (CAD) system, which was procured as part of the renovation of the Public Safety Headquarters facility, is now 10 years old and is in need of either a significant upgrade or replacement. While upgrades and additional modules have been installed over the years, the time is right to take a comprehensive look at the system and determine whether it meets the current and future needs of the Police and Fire Departments. This funding would be used to hire a consultant with expertise in integrated public safety dispatch systems.

Estimated Cost: \$75,000

Time Schedule: Prior Year -- \$75,000 Property Tax / Free Cash

14. FIRE APPARATUS REHAB

The Town’s policy is to replace front-line fire engines every 17 years and front-line ladder trucks every 20 years. While this replacement schedule serves the Town very well, funding needs to be appropriated every 10 years to rehab engines and every 12 years to rehab ladder trucks. The breakout of the proposed funding is as follows:

Engine #1 = \$220,000(FY16)	Reserve Engine #5 = \$80,000(FY16)
Quint #4 = \$500,000 (FY20)	Reserve Ladder #12 = \$200,000 (FY21)

By rehabbing Reserve Engine #5, the Town will have two reserve fire engines that have been rehabbed and in good working order. Additionally, with the replacement of Ladder# 2 in FY15, the Department’s compliment of spare apparatus will be sufficient (once replaced, Ladder #2 will become a spare).

Quint 4 was purchased in 2010. In keeping with the Town’s policy of refurbishing fire engines at 10 years the quint will need to be refurbished in 2010. While the Quint has an aerial ladder on it, we typically operate it as an engine company and therefor fall under the 10 year guideline. However, the refurbishment costs will be higher than a traditional fire engine due to its dual design.

Ladder #12 (formerly Ladder #2), which serves as the Department’s spare ladder, is a 1995 Pierce that was rehabbed in 2008. In FY21, the Department's front-line ladder trucks should be in excellent condition is the current replacement plan is adhered to. However, Ladder #12 will be quite old and in need of replacement or rehab. It is thought that the newer front-line ladders will relieve much of the burden on the spare ladder, but not completely eliminate it. Ladder #12 will be assured several more years of use if \$200,000 of rehab work is put into the vehicle.

Estimated Cost: \$1,000,000

Time Schedule: Prior Year -- \$300,000

FY 2020 -- \$500,000

Property Tax / Free Cash

FY 2021 -- \$200,000

Property Tax / Free Cash

15. ENGINE #6 REPLACEMENT

Keeping with the current policy of engine replacement at 17 years, Engine #6 will need to be replaced in FY19. The estimated cost for replacement is \$660,000.

Estimated Cost: \$660,000

Time Schedule:

FY 2019 -- \$660,000

Property Tax / Free Cash

16. TOWER #1 REPLACEMENT

Tower 1 was purchased in 2006 and would have been 12 years old in 2018, the point at which the Town policy requires refurbishment of Ladder trucks. Refurbishment is estimated at \$500,000.00. However, Tower 1 has not served us well both operationally and mechanically. The Department has had to repair this vehicle several times and it has not been a reliable piece of equipment. Its size makes operating in the Coolidge Corner area difficult and its unusual design and complicated operation are problematic. The Fire Chief was able to trade in the current truck on a future replacement purchase which will reduce the replacement cost to \$800,000.

Our goal is to purchase a more traditionally designed Ladder truck. In fact, the current plan is to order a basic twin to the recently built Ladder 2 bringing consistency to the apparatus, their use, operation and maintenance. History has shown us a traditional Ladder truck will serve us for 20 years.

Estimated Cost: \$800,000

Time Schedule:

FY 2018 -- \$800,000

General Fund Bond

17. FIRE STATION RENOVATIONS

A study was made of the conditions of the fire stations and what was needed to maintain the integrity of the floors and building in regard to the newer, larger fire equipment. The work outlined in the report includes flooring, shoring, beams, columns, and structural work. The report also includes recommendations for the HVAC systems, generators, lighting, life safety, and mechanical, electrical, plumbing (MEP), along with other peripheral systems.

The report broke the work into three categories: (1) structural, (2) life safety systems, and (3) MEP. The recommended approach was to fund all required structural work in the first year (\$625,000 was approved in FY12), then fund life safety systems by stations as prioritized by the Fire Chief (FY13 – FY15), and then undertake the MEP work (starting in FY17). Given the work planned for Station 6 the funding schedule for Station 6 MEP work was moved from FY2021 to FY2017 in order to allow efficiencies with bids and project schedules. Additional structural work needed at this site is also included.

The estimates for remaining work at each station are as follows:

Sta 6 (Hammond St)	\$ 670,000 (FY17)
Sta 7 (Washington Sq)	\$ 580,000 (FY18)
Sta 4 (Rt. 9/Reservoir Rd)	\$ 385,000 (FY19)
Sta 5 (Babcock St)	\$ 350,000 (FY21)
Sta 1 (Brookline Village)	\$ 280,000 (FY21)
TOTAL	\$2,265,000

Estimated Cost: \$2,265,000

Time Schedule:

FY 2017 -- \$670,000	Property Tax / Free Cash
FY 2017 -- \$580,000	Property Tax / Free Cash
FY 2019 -- \$385,000	Property Tax / Free Cash
FY 2021 -- \$630,000	Property Tax / Free Cash

18. FIRE DEPARTMENT FLEET MAINTENANCE AND TRAINING BUILDING

The current maintenance facility is located in Station #1. The service area (shop) is on the first floor with storage and office space located in the basement. At this time the service elevator, used to transport supplies to the basement for storage, has been condemned. Because of that, there are tires weighing several hundred pounds virtually inaccessible in the basement. The actual shop area is above the basement area. Currently, the shop floor requires replacement and/or reinforcement if work in the area is to continue. Additionally, the shop is not large enough to allow access to many of the Department’s vehicles, leaving the mechanics no choice but to do repairs out in the street, the drill yard, or, on occasion, inside another fire station. This is obviously unsafe when on the street and inefficient when working in locations away from the shop and all its tools and equipment. The limited size of

the shop and its inability to house the apparatus leaves the Department looking to costly outside repair vendors more often than would be necessary if the Department had an adequate facility.

The Department's training facility is located at Station #6. A modernized training facility would have a classroom with the technology necessary for the delivery of essential training. The Station would also be upgraded with a new Self Contained Breathing Apparatus (SCAB) filling station, to be utilized not only for the filling of air depleted while training, but also for air used during the course of regular firefighting activities. This would eliminate the need for Engine #6 to travel outside their first due response area in order to fill cylinders. The Training Division would acquire appropriate and sufficient equipment to aid in the administration of hands-on training programs without depleting the equipment from front-line companies. This will leave companies fully complimented and better able to return to service and respond to emergencies while at the Training Facility. Lastly, a new drill yard would contain a modern, fully NFPA-compliant, live-fire training building. The existing tower, which is in poor condition, will be removed.

The ideal conclusion of this project would be twofold: (1) the creation of an apparatus maintenance facility that meets the needs of the Brookline Fire Department and provides a safe working environment for the employees and (2) the revamping of the current training site into a safe, modern, and up-to-date facility. The \$40,000 in FY15 funded a feasibility study. In FY17, \$4.5 million is included for design and construction.

Estimated Cost: \$4,500,000

Time Schedule:

FY 2017 -- \$4,500,000

General Fund Bond

LIBRARY

19. COOLIDGE CORNER LIBRARY - ELEVATOR (ADA)/ REAR WINDOWS/CARPETING

The Coolidge Corner Library is presently only fully accessible at the front main entrance. On the lower level in the rear is a meeting room and toilets, and this room is not handicap accessible from the upper level; the only access is through a rear door. In order to make the library fully accessible, an elevator is proposed for installation at the rear of the library, which would allow access directly below. The proposed plan is to build a structure to house a permanent lift outside, which is estimated to cost \$245,000. By installing the lift on the exterior of the existing building, the library can remain open during the construction and the library will avoid having to discard a significant number of books due to the loss of space caused by the new equipment and resulting ADA code restrictions.

There are nine large panels of glass windows in the rear of the building dating from the original construction in 1970. The glass is not insulated and is loose in a number of areas. All the glass would be replaced with operable windows that can be locked for security purposes. \$155,000 is included for plans and specs (\$15,000) and the windows (\$140,000).

The majority of the carpet was installed in 1997 and is now more than 15 years old. This project will replace approx. 15,000 sq. feet of carpet at an estimated cost of \$100,000.

Estimated Cost: \$515,000

Time Schedule:

FY 2018 -- \$515,000

Property Tax / Free Cash

20. LIBRARY FURNISHINGS

This request of \$110,000 will be used to replace furnishings and equipment at all three libraries. The furnishings at the Main Library will be 15 years old in 2018. While the tables are expected to last 25 years or more, most of the wood and all of the upholstered chairs will have to be replaced.

Estimated Cost: \$110,000

Time Schedule:

FY 2017 -- \$110,000

Property Tax / Free Cash

21. LIBRARY INTERIOR FACELIFT/PAINTING AND REPAIRS

This project will allow for repairs to the heavy traffic areas of all three libraries. It will provide for the painting of the interior of the libraries every 6-7 years; the replacement of carpeting and other flooring and ceiling tiles, as needed; and the ability to make minor electrical repairs and lighting upgrades. Each library would be done in sections to avoid having to close each facility.

Estimated Cost: \$110,000

Time Schedule:

FY 2017 -- \$110,000

Property Tax / Free Cash

TRANSPORTATION

22. TRAFFIC CALMING / SAFETY IMPROVEMENTS

This funding will be used to implement approved traffic calming measures, which are those that have been reviewed, analyzed, and designed by the Transportation Division using the Traffic Calming Policy as a guide.

Estimated Cost: \$331,000

Time Schedule:

Prior Year --	\$31,000	Property Tax / Free Cash
FY 2018 --	\$50,000	Property Tax / Free Cash
FY 2019 --	\$50,000	Property Tax / Free Cash
FY 2020 --	\$50,000	Property Tax / Free Cash
FY 2021 --	\$50,000	Property Tax / Free Cash
FY 2022 --	\$50,000	Property Tax / Free Cash
Future Years --	\$50,000	Property Tax / Free Cash

23. BICYCLE ACCESS IMPROVEMENTS

The \$36,000 requested for FY17 would fund the following:

1. Beacon Street (Marion Street to Westbourne Terrace) westbound street grade. There will be a protected bicycle lane which will include pavement markings, signage, and related traffic signal equipment upgrades. The project will provide safe and appropriate on-street pavement marking treatments to connect the regional bicycle route as outlined in the Green Routes Master Network Bicycle Plan adopted by the Transportation Board.
2. Bicycle Corral including bicycle rack, delineator posts, and protective curbing to maximize and promote bicycle parking in the commercial district (this will be removed in the winter months).
3. Bicycle Racks for Commercial Districts and Other High Use destination points throughout the Town including schools, parks, and playgrounds.

Estimated Cost: \$141,000

Time Schedule:	Prior Year -- \$105,000	Property Tax / Free Cash
	FY 2017 -- \$36,000	Property Tax / Free Cash

24. PARKING METER TECHNOLOGY UPGRADE

As parking meter rates increase and less people carry coins users of our parking meter system have continuously requested that the Town implement new parking meter technologies to offer alternative forms of payment. In 2013, the Town of Brookline upgraded our metered public parking supply to provide improved customer convenience, ensure a regular turnover of spaces in our high demand areas, and improve municipal maintenance and collection operations. This deployment included the installation of Digital Luke multi-space parking meters in public parking lots and over 500 IPS single space credit card acceptance parking meters on-street in our high use districts along portions of Beacon Street, Harvard Street, Kent Street, and Brookline Avenue. Use of these single space parking meters have been widely accepted and supported by general users, merchants, and others. As parking meter rates increase and less people carry coins, the Brookline Chamber of Commerce and other business and civic leaders have requested that the Town replace the remaining 1,320 POM coin only single head parking meter mechanisms with IPS credit card accepting parking meters over a 3 year period. The per unit price of \$610 per mechanism includes meter mechanism, installation and commissioning, and extended 12 month warranty.

The impact on DPW's operating budget for data storage and credit card service charges is quite significant, so while Capital funding is provided in FY2017 for the mechanisms, the recommendation is for implementation over a three-year period. This will give the Town time to evaluate the impact of an anticipated pay-by-cell program and whether or not full implementation is needed given the convenience pay-by-cell technology provides.

Estimated Cost: \$804,000

Time Schedule:	FY 2017 -- \$804,000	Property Tax / Free Cash
----------------	----------------------	--------------------------

25. DEAN ROAD/CHESTNUT HILL AVE TRAFFIC SIGNAL UPGRADE

The traffic signal at the intersection of Dean Road and Chestnut Hill Avenue is the last of the older electronic traffic signals that needs to be upgraded. \$35,000 is for design while the \$225,000 is for the signal upgrades.

Estimated Cost: \$260,000

Time Schedule: FY 2017 -- \$260,000 Property Tax / Free Cash

ENGINEERING/HIGHWAY**26. STREET REHABILITATION - TOWN**

In 1992, the Department of Public Works (DPW) undertook a comprehensive study of its roads and implemented a pavement management system. The system was designed to bring Town-owned streets to a sufficient level of repair such that the roads could be maintained without undertaking costly full reconstruction. From 1992 to 1997, the Town made some progress in this regard, but funding was inconsistent. Starting in 1997, the Town began allocating \$1 million per year to streets, in addition to Chapter 90 funding from the State.

Based on the recommendations of the 2007/2008 Override Study Committee (OSC), the 2008 Override approved by the voters included \$750,000 for streets and sidewalks, to be increased annually by 2.5%. In FY17, the appropriation is recommended at \$1.63 million (the original \$1 million base plus the \$300,000 added in FY09 increased annually by 2.5%).

Estimated Cost: \$13,850,000

Time Schedule:	Prior Year -- \$1,590,000	
	FY 2017 -- \$1,630,000	Property Tax / Free Cash
	FY 2018 -- \$1,670,000	Property Tax / Free Cash
	FY 2019 -- \$1,710,000	Property Tax / Free Cash
	FY 2020 -- \$1,750,000	Property Tax / Free Cash
	FY 2021 -- \$1,790,000	Property Tax / Free Cash
	FY 2022 -- \$1,830,000	Property Tax / Free Cash
	Future Years -- \$1,880,000	Property Tax / Free Cash

27. STREET REHABILITATION - STATE

The State provides monies under its Chapter 90 program for improvements to certain streets. About 1/3 of Brookline's streets are eligible for 100% State reimbursement. This money supplements the funding appropriated from Town funds for street rehabilitation. An annual \$300 million statewide Chapter 90 program is assumed.

Estimated Cost: \$11,522,344

Time Schedule:	Prior Year -- \$1,440,293	
	FY 2017 -- \$1,440,293	State Grant

FY 2018 -- \$1,440,293	State Grant
FY 2019 -- \$1,440,293	State Grant
FY 2020 -- \$1,440,293	State Grant
FY 2021 -- \$1,440,293	State Grant
FY 2022 -- \$1,440,293	State Grant
Future Years -- \$1,440,293	State Grant

28. SIDEWALK REPAIR

The Department of Public Works developed a sidewalk management program. Some sidewalks are reconstructed as part of the street reconstruction program; those that are not are funded under this program. Based on the recommendations of the 2007/2008 Override Study Committee (OSC), the 2008 Override approved by the voters included \$750,000 for streets and sidewalks, to be increased annually by 2.5%. Of the FY09 override amount, \$50,000 was appropriated for sidewalks. In FY17, the appropriation is recommended at \$304,000 (the original \$200,000 base plus the \$50,000 added in FY09 increased annually by 2.5%).

Estimated Cost: \$2,594,000

Time Schedule:	Prior Year -- \$297,000	
	FY 2017 -- \$304,000	Property Tax / Free Cash
	FY 2018 -- \$312,000	Property Tax / Free Cash
	FY 2019 -- \$320,000	Property Tax / Free Cash
	FY 2020 -- \$328,000	Property Tax / Free Cash
	FY 2021 -- \$336,000	Property Tax / Free Cash
	FY 2022 -- \$344,000	Property Tax / Free Cash
	Future Years -- \$353,000	Property Tax / Free Cash

29. LED STREETLIGHT REPLACEMENT PROGRAM

The Town owns and maintains approximately 3,500 streetlights that were purchased from NStar in 2001. The majority of the lights use the "cobra head" style fixture with high-pressure sodium lamps ranging from 100 watts to 400 watts. The annual energy cost budgeted for unmetered streetlights totals approximately \$365,000. DPW implemented two pilot programs that replaced 104 high-pressure sodium lamps with more efficient LED lamps ranging from 55 to 75 watts to determine both the acceptability by the public and the reduction of energy usage. In addition to the benefits of reduced energy use and a cleaner, more directed light (less light pollution); industry standards are that the bulb life of the sodium lamps (six years) can be stretched to 20 years for the LED's. This technology is no longer considered cutting edge and a number of communities in Massachusetts are striving to make this the new standard for their lighting systems and it appears as though the price has plateaued.

This project replaces the high-pressure lamps with LED's over a four-year period. Based on industry standards and the composition of the 3,500 fixtures the Town plans to purchase, each LED will save approximately \$50 per year in energy costs. That equates to approx. \$180,000 in savings in the utility budget per year. The total cost of the project is \$1.1 million, resulting in a 6- to 7-year payback period. With the life expectancy of LED's at 20 years, that means after paying off the purchase cost in the first 6-7 years, each of the next 13-14 years results in annual

savings of approx. \$180,000, or \$2.3 million over that period. A rebate program from NStar is available and it is expected that the Town will receive approx. \$335,000, reducing the Town's overall outlay. In FY14, \$540,000 was approved, followed by \$515,000 in FY15. \$220,000 in FY16 will complete the purchase and installation of the LED's.

Estimated Cost: \$220,000

Time Schedule: Prior Year -- \$220,000 Property Tax / Free Cash

30. PARKING LOT REHABILITATION

Since its construction in 1965, the Centre Street parking lot has not had any substantial maintenance work done. Repairs have been more reactive and of the "band-aid" type and significant renovations in terms of curbing, pavement, and associated improvements are necessary. The Center St. East Parking Lot / Harvard St. Study calls for the expenditure of \$100,000 to hire a consultant to further develop conceptual plans prepared as part of a preliminary Reconfiguration Study conducted in 2014. There is a great opportunity for the Town to identify and then integrate other needs confronting Coolidge Corner into planning for the parking lot, thereby promoting an efficient use of the publicly owned parcel. Once this study is complete, there will be a better understanding of the opportunities and costs. The \$205,000 shown in Future Years is the estimate for the more traditional repaving and resetting of curbing.

Estimated Cost: \$205,000

Time Schedule: Future Years -- \$205,000 Property Tax / Free Cash

31. WINTHROP PATH REHABILITATION

Winthrop Path is a 380 ft. pedestrian foot path that runs from Washington Street to Winthrop Road. The path was constructed in 1933 and had major reconstruction in 1965. In the 50 years since then the path has received only minor maintenance. There are many steps which have deteriorated to the point where they are not safe to travel. The Highway Division has done the best they can in trying to keep the steps passable. DPW will try to keep the path open but may have to close path if the temporary/preventive maintenance falls behind.

Estimated Cost: \$65,000

Time Schedule: FY 2017 -- \$65,000 Property Tax / Free Cash

32. MUNICIPAL SERVICE CENTER RENOVATIONS

An engineering study determined that the underlying cause of the deterioration of the Municipal Service Center (MSC) floor was the marginal sizing of the structural systems supporting the floor, causing the slab to move under heavy equipment loading. In FY14, \$2.5 million was authorized to address this issue. The plan is to reconfigure the upper floor space to remove heavy equipment traffic and storage from the structural floor to significantly reduce the loading on the floor and relocate the existing shop space on the non-structural slab to provide additional space for heavy equipment storage. The floor could then be repaired permanently without the fear of future damage

occurring due to slab movement. Unfortunately, current cost estimates point to the \$2.5 million as being insufficient. An additional \$400,000 is being requested in order to move this important project forward.

Estimated Cost: \$650,000

Time Schedule: Prior Year -- \$650,000 Property Tax / Free Cash

WATER/SEWER

33. SINGLETREE HILL TANK IMPROVEMENTS

The Singletree Hill water storage tank provides the water distribution system with storage and operating reserves. Scheduled maintenance requires that the interior and exterior of the tank be reconditioned every 10 to 15 years. The interior was completely renovated in 2008 while the exterior was last completed in 2003. These funds will provide for the complete restoration of the exterior surface in FY17 and the interior surface in FY19.

Estimated Cost: \$830,000

Time Schedule: FY 2017 -- \$340,000 Water & Sewer Enterprise Fund Bond
FY 2019 -- \$490,000 Water & Sewer Enterprise Fund Bond

34. STORMWATER IMPROVEMENTS & PERMIT COMPLIANCE

The EPA's Stormwater Phase II Rule establishes an MS4 stormwater management program that is intended to improve the Town's waterways by reducing the quantity of pollutants that stormwater picks up and carries into storm sewer systems during storm events. This project includes consulting services required for compliance with EPA's Phase II MS4 Permit and installation of structural lining in existing drain crossings along the MBTA C Line and D Line.

Estimated Cost: \$1,500,000

Time Schedule: FY 2017 -- \$300,000 Water & Sewer Enterprise Fund Budget
FY 2018 -- \$300,000 Water & Sewer Enterprise Fund Budget
FY 2019 -- \$300,000 Water & Sewer Enterprise Fund Budget
FY 2020 -- \$300,000 Water & Sewer Enterprise Fund Budget
FY 2021 -- \$300,000 Water & Sewer Enterprise Fund Budget

35. WASTEWATER SYSTEM IMPROVEMENTS

This on-going project provides funding for the rehabilitation of the wastewater collection system (sanitary sewer). Rehabilitation was based on the recommendations of the Wastewater Master Plan completed in 1999. Previously construction projects to correct sewer system deficiencies targeted: 1) structural improvements, 2) sewer and storm drain separation and 3) hydraulic capacity restoration. Moving forward the primary focus will be on the removal of inflow and infiltration sources with the overall goals of eliminating sewerage backups into homes and

businesses and lowering MWRA wholesale costs by reducing extraneous flows. Funding for this project should ultimately enhance the efficiency of the wastewater collection system and help to lower MWRA wholesale costs.

Estimated Cost: \$6,000,000

Time Schedule: Prior Year -- \$3,000,000 Water & Sewer Enterprise Fund Bond
FY 2019 -- \$3,000,000 Water & Sewer Enterprise Fund Bond

36. 44 NETHERLANDS ROAD - IMPROVEMENTS

Project includes replacement of existing skylights, which are leaking; repair of existing concrete floor, which is delaminating and replacement of two fuel pumps/dispensers, which are currently corroded.

Estimated Cost: \$190,000

Time Schedule: FY 2017 -- \$190,000 Water & Sewer Enterprise Fund Budget

37. SINGLETREE STORAGE TANK GATEHOUSE

The Singletree Gate House, which houses the instrumentation and utilities for the Singletree Storage Tank is in desperate need of upgrades. Plastic is covering internal components due to a leaking roof, the electrical panel contains "screw in" type fuses and instrumentation must be upgraded, among other necessary improvements.

Tighe & Bond, a local full service engineering firm, from Westwood, Ma, preformed an evaluation of the Singletree Storage Tank Gatehouse to determine structural, architectural, electrical, HVAC and SCADA (instrumentation) improvement needs.

Estimated Cost: \$320,000

Time Schedule: FY 2017 -- \$320,000 Water & Sewer Enterprise Fund Bond

PARKS/PLAYGROUNDS

38. BROOKLINE AVENUE PLAYGROUND

Brookline Avenue Playground is a four-acre park located in North Brookline. The playground equipment located behind the Lynch Center serves the neighborhood, the community overall and the Brookline Early Education Program (BEEP). The play area was last renovated in 1994 and is in need of complete replacement including new play equipment, safety surfacing and accessibility improvements. This project also includes resting and refurbishing the athletic field that serves soccer, football, youth baseball, and softball. Funding in FY16 construction project is for \$890,000.

Estimated Cost: \$890,000

Time Schedule: Prior Year -- \$890,000 Property Tax / Free Cash

39. BROOKLINE RESERVOIR PARK

Brookline Reservoir Park is a multigenerational community park and water body located along Route 9 between Lee and Warren Streets in the middle of town. Both the reservoir and the gatehouse are listed as a national landmark. It is a man-made body of water approximately one mile in circumference with a walking/jogging stone dust track that circles the reservoir. The active walking/jogging path also serves as a dam managed under the Commonwealth of Massachusetts Dam Safety Program. The dam is inspected on a regular basis and in order to be compliant with the state regulations and to sustain the structural integrity of the dam must have significant trees and vegetation removed from berm. The interior basin of the Reservoir is a stone riprap wall and is in need of repointing, regrouting and replacement of stones. The stonedust path is in need of repair, for both accessibility and safety. In addition to repairing the stone basin, the design review process and restoration project will include consideration of plantings, park furniture, and screening from Route 9, comfort station and pathway/access/entry/overlook points. Funding for the project is estimated to total \$2.34 million, with \$140,000 in FY17 for design and \$2.2 million in FY18 for construction.

Estimated Cost: \$2,340,000

Time Schedule:	FY 2017 -- \$140,000	Property Tax / Free Cash (Design)
	FY 2018 -- \$2,200,000	General Fund Bond (Construction)

40. COREY HILL PARK

Corey Hill Park is located at the crest of Summit Avenue. The southern parcel contains an active play equipment area and lawn and the northern parcel contains an attractive overlook of Boston, lawn area, sundial, and seating. The playground, last renovated in 1989, is in need of complete replacement including site regrading and accessibility improvements. This project will replace all playstructures at the site and review the layout and design of the active playground portion of the park. Site masonry work, benches, walkways, planting, and other site amenities will be included with this renovation. Funding for the project is estimated to total \$740,000, with \$40,000 in FY16 for design and \$700,000 in FY17 for construction.

Estimated Cost: \$740,000

Time Schedule:	Prior Year -- \$40,000	Property Tax / Free Cash (Design)
	FY 2017 -- \$700,000	General Fund Bond (Construction)

41. CYPRESS PLAYGROUND & ATHLETIC FIELD

Cypress Playground is a 5.22 acre park located in the heart of Brookline, adjacent to the High School, Tappan Gym and Kirrane Aquatic Center. The park has two softball fields that are shared with a rectangular natural turf field for all sports. A large seating area and full basketball court are located at the far side of the athletic playing fields. The park has a spray pool, picnic area, play equipment for tots and children and a sledding hill.

This renovation includes new play equipment for 2-5 and 5-12 year-old children, repair of a perimeter retaining wall, new curbing, updated water play, pathways, drainage improvement, new basketball court, updated picnic

area and seating, plantings, new irrigation, infield and athletic field renovation. The \$1.67 million is comprised of \$140,000 for design and \$1.62 million for construction.

Estimated Cost: \$1,760,000

Time Schedule:	FY 2021 -- \$140,000	Property Tax / Free Cash (Design)
	FY 2022 -- \$1,620,000	General Fund Bond (Construction)

42. EMERSON GARDEN PLAYGROUND

Emerson Garden is a park located along Davis Avenue and Emerson Street with a perimeter walking path, seating, waterplay, picnic area, playground and lawn area. The play equipment for tots and older children, last renovated in 1995, is in need of total replacement, new perimeter fencing is required, and accessibility improvements are needed. The playground review will include consideration of picnic/passive areas, review of spray pool utilities, park furniture, and rehabilitation of the landscaped areas. The design review process will revisit layout, grading, accessibility, safety, and functionality of the park. Funding for the project is estimated to total \$830,000, with \$60,000 in FY16 for design and \$770,000 in FY17 for construction.

Estimated Cost: \$830,000

Time Schedule:	Prior Year -- \$60,000	Property Tax / Free Cash (Design)
	FY 2017 -- \$770,000	Property Tax / Free Cash (Construction)

43. BROOKLINE RESERVOIR GATEHOUSE ROOF

The Parks and Open Space Division of the Department of Public Works and the Building Department are working with the Preservation Commission to preserve and potentially reuse this nationally significant 1848 granite and iron building, which is located along Route 9 and Warren Street. The gatehouse and Reservoir Park are listed on the National and State Register of Historic Places and have recently been distinguished as a National Historic Landmark. A 2009 engineering study by Structures North determined that its masonry is in good condition and its roof structure could be rehabilitated, despite damage to the truss ends from failed built-in gutters (now covered). In 2010, temporary shoring secured the roof from heavy snow loads and North Bennet Street School students restored the doors and some windows. A master planning process for the Reservoir Park will consider possible uses for its upper interior level.

This funding is to restore the ends of the trusses, re-secure them to the original iron roof with which they are structurally integrated, and replace the present pre-WWI standing-seam steel roof. The engineering study budgets approximately \$20,000 for interior demolition, \$135,000 for structural work, and \$95,000 for a new metal roof. At least \$50,000 of this might be offset by an MHC matching grant.

The Study also addressed carpentry, stair, and masonry repairs, the estimate for which is \$400,000. This work is predicated upon the receipt of outside funding that could be a combination of grants and private funding.

Estimated Cost: \$650,000

Time Schedule: Prior Year -- \$250,000 Property Tax / Free Cash
 Prior Year -- \$400,000 State/Federal Grant/Private Funding

44. HARRY DOWNES FIELD & PLAYGROUND

While the oval and track at Harry Downes Field, located at Pond Avenue and Jamaica Road, were renovated in 2006, the play area, picnic area and softball field are in need of renovation. The playground area was last renovated in 1993. This budget item is intended to replace the play equipment and park furniture, install a water play/spray pool amenity, renovate the softball field (also used for lacrosse, soccer and football)and install exercise equipment. Funding for the project is estimated to total \$990,000, with \$80,000 in FY17 for design and \$910,000 in FY19 for construction.

Estimated Cost: \$990,000

Time Schedule:

 FY 2017 -- \$80,000 Property Tax / Free Cash (Design)
 FY 2019 -- \$910,000 General Fund Bond (Construction)

45. HEATH SCHOOL PLAYGROUND & ACCESSIBILITY ACCOMODATION

The Heath School Playground has two play areas; one on the side of the school for younger children (early education program and kindergarten generally ages 2-5) and one at the front of the school for older children (5-12 year olds). The play areas are actively and continuously used by the Brookline public school system during the day, extended day program until 6 pm and by the neighborhood after school hours, on the weekends, summers and holidays. The tot play area was last renovated in 1996 and is in need of complete replacement, including major grade changes and expansion to make necessary accessibility accommodations. In addition, while a portion of the older children's play area was upgraded in 2005, it is in need of accessibility and inclusion improvements in order to support not only an expanding school population, but children currently enrolled at the school with special requirements for inclusion and accommodation. Expansion of the existing play area would include poured-in-place safety surfacing and ramps that are wheelchair accessible.

The renovation is intended to make the play area inclusive. Inclusion is a principal, policy, process and outcome that creates opportunities for all individuals to participate fully in the social (including play, recreation and sports), cultural, educational and civic aspects of community life.

This request is addressing a current need identified at the school. The request is for \$80,000 for design/construction bid documents and \$950,000 for construction.

Estimated Cost: \$1,030,000

Time Schedule: Future Years -- \$1,030,000 Property Tax / Free Cash

46. KRAFT FAMILY ATHLETIC FIELD SYNTHETIC TURF REPLACEMENT

The Kraft Family Athletic Facility, synthetic turf field and track, was installed in 2006. The synthetic turf carpet has a warranty of 8 years and an anticipated life cycle of 12 years. In FY21 the field will be 15 years old. The carpet has suffered several tears requiring repair and the field is in need of regrading. The project involves removing the existing carpet, laser grading the sub base, replacing the synthetic turf and installing new infill. In addition, the track is in need of crack sealing the base and installation of a new rubberized surface and lines. In FY20, \$90,000 is included for design while \$980,000 is in FY21 for construction.

Estimated Cost: \$1,070,000

Time Schedule:	FY 2020 -- \$90,000	Property Tax / Free Cash (Design)
	FY 2021 -- \$980,000	General Fund Bond (Construction)

47. LARZ ANDERSON PARK

With over 65 acres, Larz Anderson Park is the largest park in Brookline, is listed on the National and State Registers of Historic Places and is the flagship park of the Town with many architecturally significant buildings, structures and fences, athletic fields, play equipment, picnic areas, walking paths, an ice rink, significant trees, a water body, sweeping slopes and magnificent views of the City of Boston.

The FY19 request (\$2.7 million) is for restoration in and around the lagoon area including: stabilization of the banks, dredging excessive organic material that has accumulated in the pond leading to constant algae blooms, installation of new fountain and aeration units, repair to the drainage structures, safety repair/replacement of the deteriorating Tempietto, terrance, stairs and fountain, repair of the railings and bridge structures, invasive removal and new plantings.

The \$2.2 million budget in FY21 is for the Italianate Garden and the Maintenance Yard. Larz Anderson Park shows many traces of the three major cultural influences on the Anderson's aesthetics and lifestyle: Italy, Japan and England. The Andersons had a vision for their Brookline home that would take them nearly 20 years to realize. They hired the landscape architect and artist Charles A. Platt to design a sunken Italian garden at the top of the hill that would embody their love of Italy. The Italian Garden infrastructure that remains is in poor and unstable condition. The request for improvements is to make structural repairs to the walks, stairs and walls, restore the gazebo on the east side of the garden (to match the restoration of the west side that was completed several years ago), removal of invasive vegetation and replacement with appropriate planting.

Just below the Italian Garden was the Agricultural and Horticultural area for the Anderson Estate. Isabel and Larz had greenhouses, a hen house, a rose garden, garden shed, and maintained extensive agricultural operations to support themselves and their staff. These operations, later to be replaced by the Parks and Open Space Maintenance Garages, were surrounded by significant concrete/stucco walls. The massive walls have shifted significantly and are cracking and deteriorating. The walls and access gate/door are in need of complete replacement (similar to the replacement of the perimeter wall on Goddard Avenue that was completed several years ago).

Estimated Cost: \$8,400,000

Time Schedule:	FY 2019 -- \$2,700,000	General Fund Bond
	FY 2021 -- \$2,200,000	General Fund Bond
	Future Years -- \$3,500,000	General Fund Bond

48. MURPHY PLAYGROUND

Murphy Playground, located between Kent, Bowker and Brook Streets, is a bowl shaped park with a noticeable grade change, retaining walls on three sides, play areas and a sloped open grass area. The park was last renovated in 1992 and is in need of renovation, including new play equipment for tots and older children, new perimeter fencing, improved accessibility, restoration of the field, rehabilitation of pathways, landscape improvements, review of picnic/passive areas, and review of spray pool utilities. The design review process will revisit layout, grading, accessibility, safety, and functionality of the park. Funding for the project is estimated to cost \$860,000, with \$70,000 for design in FY18 and \$790,000 for construction in FY19.

Estimated Cost: \$860,000

Time Schedule:	FY 2018 -- \$70,000	Property Tax / Free Cash
	FY 2019 -- \$790,000	General Fund Bond

49. PIERCE PLAYGROUND

Pierce Playground, last renovated in 1991, is located between School Street and Harvard Avenue. The park serves as a community park, neighborhood park and school ground. The park has an upper-level with play equipment and a lower-level with a ball field, with a steep slope in between. The playground is in need of a full renovation that will include drainage improvements; play equipment for both younger children and school-aged children; upgraded utilities, water play, basketball, and site furniture; a rehabilitated field; and repair to pathways, masonry and fencing. Funding for construction was approved for \$980,000.

Estimated Cost: \$980,000

Time Schedule:	Prior Year -- \$980,000	General Fund Bond (Construction)
----------------	-------------------------	----------------------------------

50. RIVERWAY PARK

This is a continuing project of the Olmsted Park/Riverway Improvements program. This appropriation is for the reconstruction of the riverbanks that have eroded in some places by as much as 10 feet, replacement of failing or hazard trees, edge planting, lawn restoration, rebuilding the path system, and re-grading to prevent future erosion. The project was originally anticipated to be implemented in FY2003; however, with the Brookline/Boston/Commonwealth of Massachusetts/US Army Corps of Engineers joint restoration of the Muddy River, this phase of restoration will be coordinated with the overall flood mitigation, environmental quality, and historic preservation work that is currently being designed and permitted.

Estimated Cost: \$625,000

Time Schedule:	Future Years -- \$625,000	Property Tax / Free Cash
----------------	---------------------------	--------------------------

51. ROBINSON PLAYGROUND

Robinson Playground is a 2.38 acre park located between Cypress, High and Franklin Streets in a dense neighborhood. The playground facilities include a youth baseball/softball field, paved basketball court, multi-use court play area, playground equipment, picnic area, and water play.

The renovation includes new playground equipment for older and younger children; water play, new irrigation and field renovation; basketball and multi-use court improvements; pathway and drainage improvements; and fence replacement. The \$100,000 in FY20 is for design while the \$1.075 million in FY21 is for construction.

Estimated Cost: \$1,175,000

Time Schedule:	FY 2020 -- \$100,000	Property Tax / Free Cash (Design)
	FY 2021 -- \$1,075,000	General Fund Bond (Construction)

52. SCHICK PLAYGROUND

Schick Park, located on Addington Road, is in need of a full site renovation to meet new safety and accessibility requirements. Renovations will include new play equipment for older and younger children, repointing the stone walls, repair of the wooden picnic shelter, field renovation, fencing, paving and site furniture. The estimated project cost is \$90,000 for design/construction bid documents and \$970,000 for construction.

Estimated Cost: \$1,060,000

Time Schedule:	FY 2020 -- \$1,060,000	General Fund Bond
----------------	------------------------	-------------------

53. BOYLSTON STREET PLAYGROUND

Boylston Street Playground is located on Route 9 in Brookline across from the Old Lincoln School. It has a basketball court, play equipment, water play, picnic and seating areas and a small athletic field most suitable for youth soccer, softball and baseball practices. In addition to a neighborhood playground, the playground serves as a site for recess and gym classes when the Old Lincoln School is occupied as a temporary school use during school renovation projects. The field is also used by school sports for practices as necessary due to its proximity to the high school. The playground, basketball court and field are in need of full replacement/refurbishment along with accessibility improvements into and through the site and social seating/gathering places to best serve community and school use.

Estimated Cost: \$1,180,000

Time Schedule:	Future Years --\$1,180,000	Property Tax / Free Cash
----------------	----------------------------	--------------------------

54. GRIGGS PARK RENOVATION

Griggs Park is located on a former wetland, in an enclave surrounded by houses and apartment buildings between Washington and Beacon Streets. The pathway is circular, rounding a collection of trees and vegetation, an open lawn area, seating and picnic areas, basketball and a playground. The playground was renovated in 1997. The project is estimated to cost \$80,000 for survey, design review, development and construction bid documents and \$890,000 for replacement of the play structures and safety surfacing for the 2-5 year olds and the school aged

children. The pathway will be resurfaced, drainage improvements made, basketball and adult exercise area improved/added, lawn and plantings improved and furnishings replaced.

Estimated Cost: \$970,000

Time Schedule: Future Years --\$970,000 Property Tax / Free Cash

55. SOULE ATHLETIC FIELDS & SITE RENOVATION

The Soule Early Education Center is located on Hammond Street. The athletic fields on site serve Town-run daycare programs, multi-age athletic leagues, camps, and residents of all ages and abilities. The circulation and stormwater management of the site are in need of redesign and renovation. Funds will provide for design and construction for increased capacity and improvements to parking areas, pathway connections, storm drainage improvements, and improvement to Robson Athletic Field (Upper Soule). The estimated project cost is \$705,000, with \$70,000 in FY20 for design and \$635,000 in FY21 for construction.

Estimated Cost: \$705,000

Time Schedule: FY 2020 -- \$70,000 Property Tax / Free Cash
FY 2021 -- \$635,000 Property Tax / Free Cash

56. PARKS AND PLAYGROUNDS REHABILITATION & UPGRADE

This is an on-going town-wide program for the repair and replacement of unsafe and deteriorating playground, fence, and field facilities or components. Items funded under this program include fences, backstops, retaining walls, picnic furniture, turf restoration, bench replacements, playstructures, safety surfacing, and drainage improvements. This program avoids more expensive rehabilitation that would be necessary if these items were left to deteriorate.

Estimated Cost: \$2,460,000

Time Schedule: Prior Year -- \$300,000 Property Tax / Free Cash
FY 2017 -- \$300,000 Property Tax / Free Cash
FY 2018 -- \$305,000 Property Tax / Free Cash
FY 2019 -- \$305,000 Property Tax / Free Cash
FY 2020 -- \$310,000 Property Tax / Free Cash
FY 2021 -- \$310,000 Property Tax / Free Cash
FY 2022 -- \$315,000 Property Tax / Free Cash
Future Years -- \$315,000 Property Tax / Free Cash

57. TOWN/SCHOOL GROUNDS REHAB

Town and School grounds require on-going structural improvements and repair. These funds will be applied to create attractive and functional landscapes and hardscape improvements including plant installation, regrading, reseeding, tree work, repair to concrete or asphalt walkways through the site, trash receptacles, bike racks, drainage improvements, retaining walls, and repairs to stairs, treads, railings, benches, or other exterior

structures. This funding does not include capital replacement of areas over building structures or directly connected to the buildings, such as entrance stairways and ramps into the building that are under the Building Department's jurisdiction. This program avoids more expensive rehabilitation that would be necessary if these items were left to deteriorate.

Estimated Cost: \$780,000

Time Schedule:	Prior Year -- \$90,000	Property Tax / Free Cash
	FY 2017 -- \$90,000	Property Tax / Free Cash
	FY 2018 -- \$95,000	Property Tax / Free Cash
	FY 2019 -- \$95,000	Property Tax / Free Cash
	FY 2020 -- \$100,000	Property Tax / Free Cash
	FY 2021 -- \$100,000	Property Tax / Free Cash
	FY 2022 -- \$105,000	Property Tax / Free Cash
	Future Years -- \$105,000	Property Tax / Free Cash

58. TENNIS COURTS/BASKETBALL COURTS

The Town has over 19 basketball courts and 36 hard-surface tennis courts. Over time, the court surfaces begin to deteriorate, crack, and weather. In order to maintain the integrity, safety, and playability of the courts, the Town needs to plan for the phased reconstruction/renovation/resurfacing of the courts, lighting and drainage improvements.

Estimated Cost: \$530,000

Time Schedule:	Prior Year -- \$230,000	Property Tax / Free Cash
	FY 2019 -- \$200,000	Property Tax / Free Cash
	Future Years -- \$100,000	Property Tax / Free Cash

59. COMFORT STATIONS

The Larz Anderson Comfort Station and service area are in need of accessibility, structural and ventilation improvements. The facility has public restroom facilities that are in need of structural upgrades, new doors, landings and facilities to better accommodate all ages and abilities. The project includes ventilation and flooring improvements, doors, fixtures and lighting. This project will also upgrade the service doors and area for the maintenance and office areas of the building as well as the façade. Future years look at fixture, ventilation and access improvements to the comfort stations system wide.

Estimated Cost: \$300,000

Time Schedule:	FY 2017 -- \$200,000	Property Tax / Free Cash
	FY 2021 -- \$50,000	Property Tax / Free Cash
	Future Years -- \$50,000	Property Tax / Free Cash

CONSERVATION/OTHER OPEN SPACE

60. TREE REMOVAL AND REPLACEMENT / URBAN FORESTRY MANAGEMENT

The tree removal and replacement program represents the Town's effort to balance street tree removals with plantings. As trees mature or are impacted by storm damage or disease, it is critical to remove these before they become public safety hazards. New tree plantings are also critical, as they directly impact the tree-lined character of the community, improve stormwater quality, provide oxygen, reduce heat impact in the summer, and improve the overall quality of life in Brookline. In addition, funding is included for on-going management work in the four conservation properties (Hall's Pond Sanctuary, Amory Woods Sanctuary, D. Blakely Hoar Sanctuary, and the Lost Pond Sanctuary) and parks. Storm damage, disease, and old age continue to reduce tree canopies. The funds will be utilized to remove hazard trees and provide structural, health, and safety pruning to prolong the life and viability of our significant trees. New trees will be planted in anticipation of the ultimate loss of existing mature trees.

Included in the requested annual amount is funding for Urban Forest Management to address a range of significant improvements needed, such as: tree removals, crown thinning, soil amendments, woodland canopy gap management, invasives removal, pest management, health and structural pruning, and planting throughout the Town's parks and open spaces. This program will help with resiliency to disease, pests and rapid decline attributed with trees unmanaged in an urban environment. The first phase of work will be performed in collaboration with the Olmsted Tree Society of the Emerald Necklace Conservancy who has worked with the Town of Brookline, City of Boston and Commonwealth of Massachusetts on an Urban Forestry Management Plan for the Emerald Necklace. The work outlined in this plan will be supported with public, private and grant funding. The protocol outlined in the plan shall be used to plan for and address urban forestry management priorities throughout Town.

Estimated Cost: \$1,860,000

Time Schedule:	Prior Year -- \$225,000	
	FY 2017 -- \$225,000	Property Tax / Free Cash
	FY 2018 -- \$230,000	Property Tax / Free Cash
	FY 2019 -- \$230,000	Property Tax / Free Cash
	FY 2020 -- \$235,000	Property Tax / Free Cash
	FY 2021 -- \$235,000	Property Tax / Free Cash
	FY 2022 -- \$240,000	Property Tax / Free Cash
	Future Years -- \$240,000	Property Tax / Free Cash

61. OLD BURIAL GROUND

The Old Burying Ground, located on Walnut Street, is Brookline's first cemetery. Although the cemetery dates back to 1717, its appearance today reflects the ideals of the 19th century rural cemetery movement. The cemetery is listed as part of the Town Green National Register Historic District. It has been featured in a publication by the

Massachusetts Department of Environmental Management entitled "Preservation Guidelines for Historic Burial Grounds and Cemeteries". Research completed by both landscape architects and specialists in monument conservation indicates that the Town has much work to do in restoring the perimeter walls, markers and footstones, tombs, and monuments, as well as landscape improvements.

Estimated Cost: \$250,000

Time Schedule: Future Years -- \$250,000 Property Tax / Free Cash

62. WALNUT HILLS CEMETERY

The Walnut Hills Cemetery was established by the Town in 1875. Designed to preserve the natural features and effects for the landscape, the Cemetery provides visitors with a place of solace, natural beauty and quiet charm. The Walnut Hills Cemetery was listed in the National and State Registers of Historic Places in 1985.

In 2004, the Town completed a master plan for the Cemetery in order to set the parameters necessary to meet town cemetery needs of the future while maintaining the visual, service, quality and other features that make the Cemetery such a valuable historic cultural resource for the Town. The Walnut Hills Cemetery Trustees and staff recently completed the development of a new interment area at the Cemetery that will serve the Town's needs for the next decade. The Town has completed a conditions assessment of the roadways through the Walnut Hills Cemetery and recommends a program of replacement, resurfacing and repair. The goal is to maintain the historic vehicular circulation system by implementing a program to phase in pavement improvements to resurface the drives and to reconstruct poor areas. The Trustees have also identified other areas for future design and development within the Cemetery for future needs.

The challenge for the Town, staff and Trustees is to satisfy the various demands of today and to prepare for the future. With that challenge, the financing plan for these capital improvements is to use Cemetery Funds. The \$50,000 in FY16 provided roadway work and will be funded from the Sale of Lots/Service fund (SW01). Current plans for the \$770,000 in Future Years, which is intended for lot expansion, is to use a combination of SW01 and an expendable trust fund (TW23) that is under the purview of the Trustees and does not require appropriation by Town Meeting. A bond authorization with debt service funded from these accounts is also a possibility. Meetings with the Trustees will continue, and they will include discussions regarding potential changes to how revenues received for the sale of lots is currently split.

Estimated Cost: \$820,000

Time Schedule: Prior Year -- \$50,000 Other (Cemetery Funds)
 Future Years -- \$770,000 Other (Cemetery Funds)

RECREATION

63. SWIMMING POOL - SHOWER RENOVATION/POOL REPOINTING

The Evelyn Kirrane Aquatics Center, located on Tappan Street, consists of three pools. The pool structure needs to have the concrete repointed to prevent foundation cracks and leaks, as it has required increased repair and

maintenance over the past few years. If a larger-scale project of this type is not undertaken, structural issues could arise in the future. \$400,000 was included in FY16 for this project.

The locker rooms require new showers, tiles and lockers on both the men's and women's sides. The areas have heavy use throughout the year and require constant maintenance and upkeep. \$275,000 was included in FY16 for this project.

Estimated Cost: \$675,000

Time Schedule: Prior Year -- \$675,000 Property Tax / Free Cash

64. ELIOT RECREATION CENTER IMPROVEMENTS

The Eliot Recreation Center is home to many of Brookline Recreation's Administrative staff and houses many community programs and services. The center is in need of renovations including an updated HVAC system, as well as utility and network infrastructure upgrades. The project includes an additional 1000 sq ft space build out over the current boiler room to accommodate a badly needed conference room as well as upgrades to the perimeter drains around the building. Historically, there have been drainage issues that have impacted the first floor during significant weather events. The project would also include renovation of the public bathrooms on the first floor.

Estimated Cost: \$775,000

Time Schedule: Future Years -- \$775,000 Property Tax / Free Cash

65. GOLF COURSE IMPROVEMENTS

Originally built in 1933, the Robert T. Lynch Municipal Golf Course has undergone a series of renovations over the past decade, but more are needed both on the course and in the clubhouse. The proposed \$1 million would be used for the following:

- finish cart paths on holes 14 and 15
- complete bunker renovations on holes 14, 16 and 17
- restoration of the 9th fairway
- substantial tree pruning and elimination on course
- creek drainage
- clubhouse electrical, HVAC, masonry, envelope

Phasing the debt service associated with a \$1 million bond will allow for debt service to remain at historical and affordable levels.

Estimated Cost: \$1,000,000

Time Schedule: Prior Year -- \$1,000,000 Golf Course Enterprise Fund Bond

SCHOOL**66. SCHOOL FURNITURE**

This is a continuous program to upgrade furniture in all schools, which absorbs significant wear and tear annually. This program will replace the most outdated and worn items.

Estimated Cost: \$840,000

Time Schedule:	Prior Year -- \$70,000	Property Tax / Free Cash
	FY 2017 -- \$80,000	Property Tax / Free Cash
	FY 2018 -- \$90,000	Property Tax / Free Cash
	FY 2019 -- \$100,000	Property Tax / Free Cash
	FY 2020 -- \$110,000	Property Tax / Free Cash
	FY 2021 -- \$120,000	Property Tax / Free Cash
	FY 2022 -- \$130,000	Property Tax / Free Cash
	Future Years -- \$140,000	Property Tax / Free Cash

67. SCHOOL TECHNOLOGY

The School Department has developed a technology plan that is designed to establish the appropriate infrastructure, building capacity in instruction, and improve efficiency in administrative functions within the PSB. The funding in FY16 was for mobile carts.

Estimated Cost: \$80,000

Time Schedule:	Prior Year -- \$80,000	Property Tax / Free Cash
----------------	------------------------	--------------------------

68. TOWN/SCHOOL BUILDING - ADA RENOVATIONS

This annual program of improvements is requested in order to bring Town and School buildings into compliance with the Americans with Disabilities Act (ADA), which requires that the Town make public buildings accessible to all.

Estimated Cost: \$620,000

Time Schedule:	Prior Year -- \$70,000	Property Tax / Free Cash
	FY 2017 -- \$70,000	Property Tax / Free Cash
	FY 2018 -- \$75,000	Property Tax / Free Cash
	FY 2019 -- \$75,000	Property Tax / Free Cash
	FY 2020 -- \$80,000	Property Tax / Free Cash
	FY 2021 -- \$80,000	Property Tax / Free Cash
	FY 2022 -- \$85,000	Property Tax / Free Cash
	Future Years -- \$85,000	Property Tax / Free Cash

69. TOWN/SCHOOL BUILDING - ELEVATOR RENOVATIONS

When a building is renovated, most elevators are upgraded (new controls, motors, cables, refurbishment of the car, etc.). Some elevators are also partially upgraded to meet the requirements of the existing building codes. The buildings that have not been renovated have elevators that are close to 40 years old. Maintenance is an issue and parts are increasingly difficult to find. This project would upgrade those cars and lifts with new equipment.

Estimated Cost: \$825,000

Time Schedule:	Prior Year -- \$275,000	Property Tax / Free Cash
	FY 2017 -- \$275,000	Property Tax / Free Cash
	FY 2018 -- \$275,000	Property Tax / Free Cash

70. TOWN/SCHOOL BUILDING - ENERGY CONSERVATION

It is imperative that monies be invested to decrease energy consumption in Town and School buildings. Programs include, but are not limited to, lighting retrofit and controls, energy efficient motors, insulation, and heating and cooling equipment. In addition, water conservation efforts are explored. This program augments existing gas and electric utility conservation programs. A continued area of focus is building commissioning. Many years ago, a building's HVAC system was set up by multiple contractors and then signed off by the design engineer. Sometimes there would be control issues, leading to complaints or high energy usage. The Building Department, for all new projects, hires a Commissioning Agent. Recommissioning of certain buildings is suggested in order to confirm that the equipment was designed, installed and set up properly.

Estimated Cost: \$1,280,000

Time Schedule:	Prior Year -- \$165,000	Property Tax / Free Cash
	FY 2017 -- \$170,000	Property Tax / Free Cash
	FY 2019 -- \$180,000	Property Tax / Free Cash
	FY 2020 -- \$185,000	Property Tax / Free Cash
	FY 2021 -- \$190,000	Property Tax / Free Cash
	FY 2022 -- \$195,000	Property Tax / Free Cash
	Future Years -- \$195,000	Property Tax / Free Cash

71. TOWN/SCHOOL BUILDING - ENERGY MANAGEMENT SYSTEM

This project is to upgrade the energy management systems in Town and School buildings. A few of the larger buildings have older (30 years) energy management systems that have exceeded their life expectancy and replacement parts are no longer available. These systems would be replaced and upgraded with new web-based systems integrated into the Town's existing computer network. Other systems would be upgraded with newer software or firmware. The Building Department will continue to work with the Information Technology Department on these projects. Software upgrades are needed at the High School, Lawrence, Pierce and Baker Schools in the next few years.

Estimated Cost: \$1,235,000

Time Schedule:	Prior Year -- \$185,000	Property Tax / Free Cash
	FY 2017 -- \$175,000	Property Tax / Free Cash
	FY 2018 -- \$50,000	Property Tax / Free Cash
	FY 2019 -- \$125,000	Property Tax / Free Cash
	FY 2020 -- \$125,000	Property Tax / Free Cash
	FY 2021 -- \$125,000	Property Tax / Free Cash
	FY 2022 -- \$200,000	Property Tax / Free Cash
	Future Years -- \$250,000	Property Tax / Free Cash

72. TOWN/SCHOOL BUILDING - ENVELOPE /FENESTRATION REPAIRS

In FY12, \$250,000 was appropriated for costs associated with repairs to the outside envelope of all Town and School buildings, including a visual inspection of the exterior of all buildings that will help prioritize these repairs. The outside envelope of facilities includes masonry, bricks and mortar, flashing, dental work, coping stones, metal shelves, and tower work. Some of these structures are over 100 years old and have never had exterior work done to them. A number of buildings have windows, door entrances, and other wall openings (fenestration) that are in need of repair/replacement. This causes water to penetrate into buildings behind walls and ceilings, causing security and safety problems. Also included in this program is any required chimney inspection and repairs, if appropriate, or the installation of new metal liners to connect to the gas burning equipment in the building.

A master plan was prepared by a consultant and includes a priority list and schedule and that calls for \$27.45 million over a 30-year period, with \$12.65 million required within the six-year period of this FY17 – FY22 CIP. Facilities addressed within this time frame include the following:

FY17	FY18	FY19	FY20	FY21	FY22
C.C. Libr.	Baker Sch	C.C. Libr.	Baldwin Sch	Fire Sta. #1	Unified Arts Building
Fire Sta. #1	Fire Sta. #7	Fire Sta. #4	Heath Sch	Health Ctr.	Main Library
UAB	Lawrence Sch	Larz Anderson		Lynch Rec Ctr.	
	Main Libr.	Lincoln School		Old Lincoln Sch	
	Old Lincoln Sch	Phys Ed Bldg		Pierce Sch	
	Public Safety HQ			Town Hall	
	Soule Rec Ctr.				

Estimated Cost: \$26,450,000

Time Schedule:	Prior Year -- \$1,550,000	General Fund Bond
	FY 2017 -- \$2,100,000	General Fund Bond
	FY 2018 -- \$2,100,000	General Fund Bond
	FY 2019 -- \$1,200,000	General Fund Bond
	FY 2020 -- \$1,000,000	General Fund Bond
	FY 2021 -- \$3,500,000	General Fund Bond
	FY 2022 -- \$1,200,000	Property Tax / Free Cash
	Future Years -- \$13,800,000	General Fund Bond

73. TOWN/SCHOOL BUILDING - ROOF REPAIR/REPLACEMENT PROGRAM

A master plan for repair and replacement of roofs on all Town and School buildings was prepared by a consultant. The plan includes a priority list and schedule and calls for \$29.3 million over a 20-year period, with \$6.65 million required within the six-year period of this FY17 – FY22 CIP. Facilities addressed within this time frame include the following:

FY19	FY21	FY22
Golf Course Clubhouse	Muni. Svc. Ctr.	Station #4
Heath School	Phys Ed Bldg	Station #6
Lawrence School		
Larz Anderson Skate Pavilion		
Lincoln School		
Pierce Primary		

Estimated Cost: \$20,850,000

Time Schedule:	Prior Year -- \$1,200,000	General Fund Bond
	FY 2019 -- \$3,500,000	General Fund Bond
	FY 2021 -- \$1,700,000	General Fund Bond
	FY 2022 -- \$250,000	Property Tax / Free Cash
	Future Years -- \$14,200,000	General Fund Bond + Property Tax / Free Cash

74. TOWN/SCHOOL BUILDING - SECURITY/LIFE SAFETY SYSTEMS

Over the last number of years, several large capital projects have been undertaken that included security improvements in Town and School buildings. This program will extend the effort and improve areas where security may be lacking. In general, the plan calls for making all doors around the perimeter of a building more secure by replacing the doors, frames, door handles, and locks with electronic locks that may only be opened with a keypad and/or on a specific schedule. Only the front main entrance of the building would allow for general access. At the front door, a speaker and doorbell will be added to connect to the building's existing intercom or phone system for use by visitors. The lighting around each building will be improved and placed on a timer. A small camera system connected to a computer will be added at the main entrance to monitor access to the building.

School buildings will be a priority. Most schools are reasonably secure, but based on an assessment by the Police Department, security can and should be improved. These funds would also be used to continue the on-going process of replacement and installation of new and upgraded burglar alarms, fire alarm systems, sprinkler systems, emergency lighting, and egress signs.

Estimated Cost: \$1,065,000

Time Schedule:	Prior Year -- \$195,000	Property Tax / Free Cash
	FY 2017 -- \$175,000	Property Tax / Free Cash
	FY 2018 -- \$80,000	Property Tax / Free Cash
	FY 2019 -- \$110,000	Property Tax / Free Cash
	FY 2020 -- \$50,000	Property Tax / Free Cash

FY 2021 -- \$160,000	Property Tax / Free Cash
FY 2022 -- \$170,000	Property Tax / Free Cash
Future Years -- \$125,000	Property Tax / Free Cash

75. TOWN/SCHOOL TRASH COMPACTOR REPLACEMENTS

Trash compactors need to be replaced at the following facilities:

Baldwin Baker Driscoll Heath High School UAB Lawrence New Lincoln Pierce Health

Estimated Cost: \$200,000

Time Schedule:	FY 2017 -- \$50,000	Property Tax / Free Cash
	FY 2019 -- \$100,000	Property Tax / Free Cash
	Future Years -- \$50,000	Property Tax / Free Cash

76. HIGH SCHOOL ADDITION

The enrollment growth that Brookline’s Elementary Schools have experienced over the past number of years began to affect Brookline High School (BHS) during school year (2014/2015). BHS enrollment is expected to grow by approximately 100 students per year from 1,900 students to 2,500 students by 2022 -- a growth of more than 600 students in seven years. This enrollment level presents a capacity challenge because the High School was renovated to accommodate 2,100 – 2,200 students and enrollment will reach approximately 2,200 by 2018/2019 and approximately 2,500 - 2,600 by 2021/2022. In FY13, \$50,000 was authorized for expenditure from “Classroom Capacity” funding for a concept study to review all possible options for addressing the capacity needs of BHS. Those monies were spent to hire an architect to assist the B-Space Committee with the BHS issue. In addition, \$100,000 was authorized in FY14 for expenditure from “Classroom Capacity” funding to further study options for the expansion of capacity at the High School.

This study, being conducted by Symmes, Maini & McKee Associates, comes on the heels of the recommendations for school expansion contained in the B-Space report to address continued enrollment growth, to align with the Public Schools of Brookline Strategic Plan and Vision, and to preserve Brookline’s commitment to excellence and equity. The process is being led by the Superintendent and Headmaster and will analyze the pedagogical and administrative implications of optimally serving up to 2,500 high school students in Brookline. This may include new or revamped programs, staffing and administrative structures, and facilities use. The plan and educational program for an expansion of high school capacity should follow a process of engagement and deliberation of options with current BHS faculty and students, the Brookline community, the School Committee, and Public School of Brookline leadership, as well as input from the research on current best practices in curriculum, instruction, and pedagogy for secondary schools. This process will take into account, but not be limited to, the options presented in the HMFH High School Concept Study.

In FY17, \$2 million is included for the Feasibility / Schematic Design phase of the project, of which 35% (\$612,500) is assumed to be funded by the Massachusetts School Building Authority (MSBA) and 65% (\$1.14million) by the Town. In FY19, \$54 million is included, of which 65% (\$35.1 million) is expected to be paid for by the Town and 35% (\$18.9 million) by the MSBA. The \$54 million figure represents the amount that can be afforded within the

Town’s 6% CIP Financing Policy. Any funding required above this amount would require a Debt Exclusion Override, absent significant modifications to the projects contained within this CIP.

Estimated Cost:	\$55,750,000	
Time Schedule:	FY 2017 -- \$1,137,000	General Fund Bond (Feas. Study / Schematic Design)
	FY 2017 -- \$612,500	State Grant (Feas. Study / Schematic Design)
	FY 2019 -- \$35,100,000	General Fund Bond (Design Completion / Construction)
	FY 2019 – TBD	General Fund Bond – Debt Exclusion (Design/Construction)
	FY 2019 -- \$18,900,000	State Grant (Design Completion / Construction)

77. MAJOR K-8 PROJECT(S)

In October, 2014, a study was commissioned by the Selectmen and School Committee to focus on identifying and evaluating sites throughout Brookline that may be able to accommodate a new or expanded school in order to address the rapidly escalating school population. In December, 2014 a contract was awarded to a vendor, CivicMoxie, in the context of their understanding of both the school capacity issue and the dearth of available and appropriately sited land in Brookline. The Board of Selectmen and School Committee reviewed the Ninth Elementary School Site Identification Study and discussed the need for a new school. Both boards separately voted on and approved the following two motions:

- Construction of a ninth school is the preferred solution to addressing continued enrollment growth in elementary grades in the Brookline Public Schools. Staff is directed to conduct further planning and analysis in support of this decision.
- Staff is directed to focus their efforts for additional due diligence and analysis, at this time, on the following two sites identified in the Ninth Elementary School Site Identification Study: Cottage Farm and the Isabel School.

This action to construct a 9th elementary school would result in the Town/School Department modifying the priority for additional preK-8 capacity from an addition to the Driscoll School - recently passed over by the MSBA - to a ninth school located in an appropriate proximity to realign assignment zones for anticipated assignment. Funding for any project will be contingent upon the electorate’s approval of a Debt Exclusion Override.

Estimated Cost:	TBD	
Time Schedule:	FY2019 – TBD	General Fund Bond – Debt Exclusion

78. DRISCOLL SCHOOL NECESSARY IMPROVEMENTS

The Driscoll School is in need of a new HVAC system with temperature controls.

The building presently uses steam to heat the building. The steam HVAC system dates back to 1910 in the main section, 1928 and 1953 with the additions.

It is extremely difficult to find parts to maintain the systems. The system as it is now is hard to maintain, sometimes overheats or under heats parts of the building and there is a concern of proper ventilation and cooling

air. The boilers were replaced in 1995. They are fully functional and operate well. The plan would be to convert them from a steam to a forced hot water system. This would allow better heating control plus save energy.

A new HVAC system (equipment, piping, ductwork and controls) would be installed to replace the existing equipment. The work would be done over two years (primarily in the summer months). Phasing would allow the building to remain occupied.

Estimated Cost: \$3,400,000

Time Schedule:	FY 2018 -- \$400,000	Property Tax / Free Cash
	FY 2019 -- \$3,000,000	General Fund Bond

79. DEVOTION SCHOOL REHABILITATION

The 148,633 sq. ft. Edward Devotion School, originally built in 1924 with renovations/additions in 1952 and 1974, requires a major renovation/addition. An architectural firm (HMFH) was hired to undertake a Concept Study and developed a range of options for a renovation/addition project. The enrollment of the Devotion School has grown from 664 students in FY08 to 811 students in FY15, a 22% increase. While this growth is reflective of enrollment growth town-wide, the expectation is that enrollment demand in North Brookline will continue for the foreseeable future. The original premise of a renovation to the Devotion School to serve 700 students was initially revised to a model that would serve a population of approximately 850 students, in a mixed configuration of four and five sections per grade. Continued growth to the school age population in North Brookline has led to the decision to build the school to a full five section school at each grade.

In March, 2012 the Massachusetts School Building Authority (MSBA) invited the Town into the "Eligibility Period", which culminated with an appropriation of \$1.75 million for the feasibility study / schematic design stage at the November, 2012 Special Town Meeting. On January 30, 2013, the MSBA approved a Feasibility Study Agreement (FSA) with the Town, which allowed for the hiring of an Owner's Project Manager (OPM) and an architectural firm. The FSA states that the Town will be reimbursed 35.84% of the \$1.75 million for this phase of the project (feasibility study / schematic design). In April, 2013 the Town issued a Request For Services (RFS) and selected HMFA as the Feasibility/Schematics design architect.

In September, 2014, the Devotion School Building Committee chose "Option 1" as the Preferred Schematic option and submitted that to the MSBA for approval. The architects will continue to work with the Devotion School Building Committee and with the community to craft a design that meets the educational program needs of the school, addresses neighborhood concerns, and contributes to the overall plan to address the increase in enrollment that has placed stress on school buildings across the district.

The FY2016 CIP estimated MSBA reimbursement for the Devotion project at \$27.8M. Due to a lower reimbursement rate (from 35.8% to 33.1%) and some unfavorable decisions around eligible project expenses, the Project Scope and Budget Agreement references an estimated maximum grant of \$25.9M. This CIP reflects the adjusted funding sources and follows the Board's directive to address that shortfall within existing CIP capacity.

Estimated Cost: \$118,400,000

Time Schedule:	Prior Year -- \$42,862,259	General Fund Bond
----------------	----------------------------	-------------------

Prior Year -- \$49,576,000
 Prior Year -- \$25,961,741

General Fund Bond – Debt Exclusion
 State Grant

80. OLD LINCOLN IMPROVEMENTS/MODIFICATIONS

In FY14, \$3 million was appropriated to update some of the building equipment and make the Old Lincoln School usable as school space for the next few years. The bids for the project came in over the appropriation, so some items were removed from the project. In FY16 \$1 million funded unit ventilators for heating, flooring and the required furnishings, fixtures, and equipment (FF&E), including cafeteria equipment, library shelving, shades/blinds, and white boards.

During recent renovations, inadequate wiring was discovered. Old Lincoln School is in need of an electrical distribution upgrade. These monies would be used to replace branch circuit wiring plus combine the two services into one. Also, these monies would be used to upgrade the plumbing system.

Estimated Cost: \$1,350,000

Time Schedule:	Prior Year -- \$1,000,000	General Fund Bond
	FY 2017 -- \$350,000	Property Tax / Free Cash

81. CLASSROOM CAPACITY

The Public Schools of Brookline has experienced K-8 Elementary enrollment increases for the last decade. K-8 Elementary enrollment has grown by 1,440 students (37%) between FY05 and FY15. There are now 5,326 K-8 students compared with less than 3,900 in FY05. In order to address this serious issue, various mitigation measures have been taken, the most significant being the Runkle School Renovation/Addition, the Heath School Addition, and the project to add four new classrooms at the Lawrence School. Other mitigation measures have primarily consisted of the careful remodeling and renovation to internal spaces within each of the schools, with the goal being the creation of the highest quality space within available constraints. Over the past few years, the following appropriations have been made to fund the costs associated with creating additional classroom spaces for the Schools:

\$400,000 (FY08 + FY10) \$530,000 (FY11) \$1.75 million (FY13 + FY14 + FY15) \$2.5 million (FY16)

The Classroom Capacity item in FY2017 covers the leases at the temples, 62 Harvard, 24 Webster Place and the Baker modules (\$992K) with very limited funding to modify smaller spaces in existing buildings (\$46K). The FY2018 – 2022 budgets assume continuation of those lease arrangements.

Estimated Cost: \$8,625,000

Time Schedule:	Prior Year -- \$2,250,000	Property Tax / Free Cash
	FY 2017 -- \$1,038,000	Property Tax / Free Cash
	FY 2018 -- \$965,000	Property Tax / Free Cash
	FY 2019 -- \$1,165,000	Property Tax / Free Cash
	FY 2020 -- \$1,223,000	Property Tax / Free Cash

FY 2021 -- \$1,032,000

Property Tax / Free Cash

FY 2022 -- \$952,000

Property Tax / Free Cash