

**Department of Public Works
FY 2020 Operating Budget and
FY 2020 Water and Sewer Enterprise Fund
March 2019**

INTRODUCTION

The Advisory Committee's Capital Subcommittee held a public hearing on the FY20 operating budget for the Department of Public Works, which includes six Public Works sub-programmes (Administration, Engineering/Transportation, Highway, Sanitation, Parks and Open Space, and the Water and Sewer Enterprise Fund), on March 12, 2019, at 5:00 p.m., in room 103 at Town Hall.

ATTENDEES

In attendance were Deputy Town Administrator Melissa Goff, DPW Commissioner Andrew Pappastergion, Director of Water and Sewer Fred Russell, Director of Parks and Open Space Erin Gallentine, Director of Highways and Sanitation Kevin Johnson, Director of Engineering and Transportation Peter Ditto, Conservation Administrator Tom Brady, and Transportation Administrator Todd Kirrane, as well as DPW Sr. Civil Engineer Jared Duval.

Also in attendance were Subcommittee members Cliff Brown, Harry Friedman, Amy Hummel, John VanScoyoc, and Committee Chairman Carla Benka; Other persons in attendance were Advisory Committee member Janice Kahn, Bicycle Advisory Committee members John Bowman and Mark Lowenstein TMM 12, Park and Recreation Commissioners John Bain, Nancy O'Connor, Antonia Bellalta, and Dan Lyons, as well as Arlene Mattison, Hugh Mattison TMM 5, Rob Daves TMM 5, and Jules Milner-Brage TMM12..

BUDGET SUMMARY

The DPW has one of the largest operating budgets in the town totalling \$15,648,096. The DPW provides essential services to Brookline residents and is one of two departments directly responsible for maintaining the capital assets of Brookline. The DPW budget, found on pages IV-65-86 of the *FY 2020 Financial Plan*, contains six Public Works sub-programmes, including Administration, Engineering/Transportation, Highway, Sanitation, Parks and Open Space, and the Water and Sewer Enterprise Fund. Individual sub-

programmes as well as the sub-programme summary may be found on page IV 72-75, together with budgets for elements within each sub-programme. The Capital Outlay Summary is found on pages II-27 and 29. A breakdown of FY20 FTE Equivalent Positions Funded is found on page II-30-31.

The DPW assists with the work of the following Board and Commissions: Transportation Board, Conservation Commission, Park and Recreation Commission, Cemetery Trustees, Tree Planting Committee, Solid Waste Advisory Committee. A number of these Committees have subcommittees such as the Public Transportation Advisory Committee, Bicycle Advisory Committee, etc.

PROGRAM COSTS - DEPARTMENT OF PUBLIC WORKS					
CLASS OF EXPENDITURES	ACTUAL FY2018	BUDGET FY2019	REQUEST FY2020	FY20 vs. FY19	
				\$ CHANGE	% CHANGE
Permanent Full Time Salaries	7,123,071	7,641,709	7,678,049	36,340	0.5%
Temporary/Seasonal	145,280	267,756	287,756	20,000	7.5%
Overtime	1,054,775	286,534	286,534	0	0.0%
Other	300,311	163,211	161,888	(1,323)	-0.8%
Subtotal	8,623,437	8,359,210	8,414,227	55,017	0.7%
Services	4,027,593	3,582,008	4,053,061	471,053	13.2%
Supplies	1,598,065	970,750	970,750	0	0.0%
Other	48,055	53,500	53,500	0	0.0%
Utilities	973,918	1,102,000	1,075,059	(26,941)	-2.4%
Intergovernmental	0	20,000	20,000	0	0.0%
Capital	1,065,033	1,446,021	1,061,500	(384,521)	-26.6%
TOTAL	16,336,101	15,533,488	15,648,096	114,608	0.7%
BENEFITS			6,199,168		
REVENUE	3,971,782	3,603,200	3,588,200	(15,000)	-0.4%
Water & Sewer Enterprise	27,904,507	28,554,309	28,564,475	10,166	0.0%

A summary of increases and decreases in the DPW budget is found on page II-16, resulting in an overall budgetary increase of \$114,608 or 0.7%.

For FY20, the DPW will have 130.38 FTE positions, a number that has remained level since FY18. These positions are allocated among Administration (8), Engineering/Transportation (14), Highway and Sanitation (64 Full Time employees 2.07 seasonal) and Parks and Open Space (36 Full Time employees 6.31 seasonal); the Water & Sewer Enterprise Fund employs 41.5 FTEs (41 full time employees 0.5 coop FTE, Water 36.5 and Sewer 5).

SUMMARY OF SUBPROGRAMS					
SUBPROGRAMS	ACTUAL FY2018	BUDGET FY2019	REQUEST FY2020	FY20 vs. FY19	
				\$ CHANGE	% CHANGE
Administration	885,065	918,667	935,457	16,790	1.8%
Engineering/Transportation	1,179,727	1,309,832	1,360,161	50,329	3.8%
Highway	7,237,259	5,961,014	5,777,343	(183,671)	-3.1%
Sanitation	3,267,293	3,260,840	3,543,591	282,751	8.7%
Parks and Open Space	3,766,756	4,083,137	4,031,545	(51,592)	-1.3%
TOTAL	16,336,101	15,533,488	15,648,096	114,608	0.7%

MAJOR DOLLAR CHANGES:

There were two major dollar figure changes for the department, one positive and one negative.

- The Capital portion of the Operating Budget fell \$384,521 (26.6%) to \$1,061,500. This took place primarily in the Highway programme (down \$204,409), Sanitation (down \$166,854) and Parks and Open Space (down \$51,153). (Administration Capital was up \$15,750, while Engineering/Transportation was up \$22,145.)
The decrease reflects a decrease in leases of \$366,700 for equipment paid off in FY19, and an increase in FY20 leases of \$131,236 for new equipment, for a net decrease of \$235,464. In addition, the overall decrease reflects the removal of \$149,058 in one-time FY19 override funds for snow removal equipment.
- Services increased \$471,053. This was mainly due to an increase in services in the Sanitation programme (up \$449,876). Since FY14, the Sanitation budget has increased 19%, while the total DPW budget has increased 3%, not including Water and Sewer. See below for a discussion of recycling, which is part of the Sanitation services budget.

EXPANSION REQUESTS

The department requested \$125,973 in Expansion Requests. Of these, four of the five expansion requests, representing \$58,438, were granted. The requests were as follows:

- Grade Change (\$4,302)—The DPW has four major divisions: Water & Sewer, Highway & Sanitation, Parks & Open Space, and Engineering & Transportation. Two of the division directors (Water & Sewer and Engineering and Transportation) were classified as D-06, while the other two were classified as D-05. It was historically assumed that the

technical and professional requirements of the D-05 jobs were less than that of the D-06 jobs. This is no longer the case, and it was felt that all four directors should be at the same grade level. THIS REQUEST WAS APPROVED.

- Landfill Environmental Monitoring (\$25,000)—the closing of the town dump requires the Town to have a monitoring programme in place to test groundwater and surface water. This will allow the DPW to contract for such services. . THIS REQUEST WAS APPROVED.
- Highway Labourer Upgrade (\$12,062)—over the past decade, the DPW has sought to replace unskilled labourers with more semi-skilled positions. There is one remaining Labourer LN-1 position in the Highway Division. The expansion request adds a sixth Working Foreman LN-6 position by eliminating the LN-1 position. The addition of a foreman allows for the mobilisation of an additional work crew that increases the efficiency of the group. . THIS REQUEST WAS APPROVED.
- Landscape Services Inflation (\$17,074)—Parks & Open Space contracts for landscaping and forestry management services for the parks, schools, and open spaces of the Town. These costs increase annually due to inflation. Some funding has increased over time, while others, such as the forestry landscape service, have been level-funded for ten years. The aim is to increase the landscape services budget by a small amount each year, as opposed to major increases every five to ten years. . THIS REQUEST WAS APPROVED.
- Code Enforcement/Visitor Service Supervisor (\$67,535)—NOT FUNDED—This was a request for a new position, a supervisor, to help staff visitor, permit, enforcement, and programme services, associated with things such as Green Dog, picnic, special event and field use permits.

ISSUES RAISED BY THE SUBCOMMITTEE:

RECYCLING

Last Year FY 19: The largest increase in DPW costs was \$138,679 from Solid Waste Disposal Costs from contractual increases in both Municipal Solid Waste and Single Stream Recycling. Recycling costs increased substantially due to China's new policy of refusing recycling materials with greater than a .5% contamination level. Previously, China had accepted contamination levels of 2.0 % up until September 2017 when they instituted this change in acceptable levels of contamination in recycled materials. Additional monthly recycling

costs due to this change in China's policies were approximately \$20,000 per month.

For FY19 it was estimated that our PAYT system of refuse and recycling collections recovered 72.6% from the refuse fee and 27% is subsidized by property taxes. During the creation of the refuse fee system, the Town created this program with guidelines to recover no more than 75% of the costs through the fee structure.

During the first complete year of our PAYT system, solid waste collections are down 5.45% (480 tons) and our collections of Single Stream Recycled materials increased by .82% or by 41 tons. In addition, 64 tons of textiles were diverted from the waste stream through the Simple Recycling Programme.

This Coming Year FY 2020: Since Brookline went to single-stream recycling in 2012, and since the introduction of PAYT in the spring of 2018, we have since experienced a decline in municipal solid waste and an increase in recycling. Since PAYT, solid waste has fallen by 480 tons to about 8,000 tons per year. We recycle about 5,057 tons per year. However, both trends are now levelling off.

The average City of Boston contamination rate on recyclable goods is 12% to 15%. Brookline, at 6%, has one of the cleanest rates. However, China, the world's largest importer of recycled materials, will only accept a rate of .5%. What does this mean?

- The Chinese market has dried up for U.S. recycled materials.
- While markets in Thailand, India, Malaysia and Vietnam tried to fill the gap, they did not have the demand to replace China, and they too have started to cut back.
- The companies that collect recycled materials no longer have much of a market. They can store some of the materials in hopes that a market will reappear, or they can burn or deposit in landfills the materials. (Note: some of the burning may be "waste to energy.")

Brookline pays about \$260/ton to collect and dispose of solid waste. (The disposal part of that cost is \$76/ton.) Since FY14, this has actually fallen by about 1%.)

For recycling, under the current contract we pay \$238/ton as a flat fee (a number that increases each year by 2.25%), and then a variable fee per ton, depending on the average monthly commodity price Casella Waste Systems,

our hauler, can get. If the average price they get for recyclables is \$75/ton, the variable fee is \$0/ton. If they get \$65/ton, we pay a variable fee of \$10/ton. If they get \$85/ton, we actually get back 70% of the overage, or \$7/ton.

AVERAGE COMMODITY PRICE IN FEBRURARY OF EACH YEAR			
2019	2018	2017	2016
\$2.61	\$5.44	\$79.38	\$32.70

In 2017, we got money back. In FY 18, the variable fee came to \$225,000 for the year. For February 2019, we paid a variable fee of \$24,000, or \$72.39/ton. Eight months into FY 19, we have spent \$220,000.

Thus, the current recycling cost per ton is \$238 (fixed) + \$72.39 (variable) for a total of \$310.39 per ton. This is versus \$260 per ton for solid waste.

Where does this leave us?

- Costs are rising. One possible cost savings would be to go to collections over 4 days/week instead of 5 days/week. The Town is looking at this as well as raising the refuse fee.
- We could try to reduce contamination rates. Casella estimates that 20% of all the recycling it collects (not just from Brookline) consists of materials that are not recyclable, and that must be put into landfills. More education outreach on this could help. So would abandoning single-stream and returning to dual stream. The problem abandoning single stream is that it would reduce overall recycling rates. In addition, it is not our decision to make because we are at the mercy of the waste haulers. None of the local haulers is using dual stream. (Note: for contaminants, Casella is basically throwing out our trash. It would have cost Brookline \$260 per ton to throw out this stuff ourselves, versus paying Casella \$310 per ton to dispose of it. If we recycle 5,057 tons per year, and 6% is contaminants, that is 303 tons at \$50/ton, or a cost of \$15,000 per year.)
- The Casella contract gets renegotiated next spring, and expires in June 2020. Costs could rise even more.
- We could find ourselves in the bizarre situation where Casella, for the recyclables it cannot sell or store, would be paid more per ton by Brookline for throwing out trash we could throw out ourselves for less.

In essence, we could cut out the middleman, throw the stuff out ourselves, and save money. (Note: Casella currently reuses, repurposes, or recycles all materials that can be used in this manner. Currently, only contaminants get put into a landfill.)

TMM Clint Richmond asked about composting, noting that 22% of municipal solid waste could be composted. The Commissioner stated that there were not currently a lot of options regarding composting.

STREETS/COMPLETE STREETS/WOODLAND ROAD

Last year, at its hearing, staff and the Capital Subcommittee expressed a great deal of concern with the impact of “Complete Streets” on the Pavement Management system in terms of both increased costs and time required to complete street improvements. (For more information on the Complete Streets Policy, adopted by the Board of Selectmen, see <http://www.brooklinema.gov/DocumentCenter/Home/View/10212>.) The Complete Streets policy was adopted by the Board of Selectmen without knowledge or consideration of the additional costs that would be incurred by the Town and by the delay in our Pavement Management Programme the adoption of Complete Streets policy would cause. The State had originally estimated an increase cost factor of 30% for Complete Streets. The Subcommittee asked that staff track the added costs to the roadway reconstruction programme experienced as a result of the Complete Streets Policy.

Two projects in the last year were constructed under the Complete Streets Policy. The first was on Winchester Street, between Fuller Street and the Town line. New Complete Streets elements included an at-grade southbound bike lane and northbound shared lane markings, i.e. sharrows. This work constituted \$14,500, or 4%, of the total cost of \$365,950.

The second project was in South Brookline and affected four roads: Shaw, Wallis, Wolcott, and Walnut Hill Road. The Complete Streets additions to the project would have involved intersection realignments with tighter kerb radii. (Based on neighbourhood feedback, the Transportation Board provided an exemption from Complete Streets for the project.) However, had the exemption not been provided, the work would have constituted \$93,636, or 11%, of the total cost of \$840,559.

Staff will continue to track these additional costs and provide an annual update to the Capital Advisory Subcommittee should the subcommittee desire.

There was also discussion of the need to hire either an outside consultant or hire additional staff to evaluate what Complete Streets might require on various projects. (There are times when roadwork, generally minimal, is done where Complete Streets does not come into play, and other times when it does.) A consultant had been hired to do some work. The Commissioner said it was more a matter of a wise use of staff time as opposed to the complexity of the Complete Streets requirements. The subcommittee asked for a cost comparison between using consultants and hiring additional staff should the need arise in the future.

Note that in reviewing a CIP traffic calming project for Woodland Road, reference was made to neighbourhood complaints about a proposed rectangular rapid flash beacon to be installed at a pedestrian crosswalk near the intersection of Heath Street and Woodland Road, adjacent to the Pine Manor campus,. It was unclear if the light was as a result of the 2013 neighbourhood-generated traffic calming request or as a result of a Complete Streets study, or both. It would appear that the installation of the flashing beacon and the pedestrian “refuge” island were suggested by the Transportation Board at its monthly meeting, although plans for these additional changes were never shown to the neighbourhood until the night of the Board meeting, at which time they were approved by the Board. It was noted that this was an example of the neighbourhood requesting an action, and then losing total control over how the action, here traffic calming, would be implemented. The only recourse would be to deny the funds for the measure at issue.

TMM Jules Milner-Brage opined that when a traffic calming request came in, there was a need to study the neighbourhood as opposed to just the single street in question.

TREES

The subcommittee enquired about an accident which happened on October 27, 2018, on Coolidge Street. During a wind storm, a street tree snapped at mid-trunk, 14 feet above the ground, and struck an automobile. The woman in the car, Susan Butler, was severely injured, hospitalised for six weeks, and then passed away. TMM Diana Spiegel, who wrote to the subcommittee about this, wondered if we had adequate funds to care for our street trees.

Conservation Administrator Tom Brady said he was “extraordinarily saddened” by what happened. It was the first such incident he has experienced in his 19 years in Brookline. He noted that when winds exceeded 40 m.p.h, there is usually trouble, and when they exceed 50 m.p.h., as they did on this day, that it is certain we will lose trees, which could then potentially cause other damage.

He noted that the Town has three state-certified arborists on staff, and also contracts services with a company that employs an arborist who has worked in the town for 17 years. The arborists look at trees as a result of calls from concerned citizens, as well as from inspections when regular 7-year pruning is done, as well as from less formal visible inspections. Factors to be considered are the age, species, and site of the tree. As a result, about 200 trees per year are taken down. This particular tree, a Norway maple, had been pruned in 2015, and is a species prone to having limbs break off in storms. The tree, from a visible point of view, looked healthy. (Note: Norway maples are considered invasive, and due, in part, to their decay characteristics, are no longer planted by the Town.)

Mr. Brady said his division took a hard look at its procedures after this accident, and he believes the Town has a good, strong programme. He noted that when it is determined that a tree needs to come down, the Town does it within weeks. Other towns do not react as fast. When the Town sees a hazard, it acts, because risk, in his words, “is non-negotiable.”

He also noted that there are 350-450 new plantings each year. When asked about natural gas leaks, he noted that there were a lot, and that after suing Boston Gas Company/National Grid, a settlement had been reached with the Town.

HISTORIC STREET SIGNS

Mr. Friedman noted that another year had passed without the historic cast aluminium street name signs being put back on Beacon Street. When the Beacon Street project was done several years ago, the Town had agreed, in its contract with MassDOT, to put these signs back up. The Commissioner stated they would go back up soon.

RECCOMENDATION

The Subcommittee, by a vote of 5-0-0, recommended \$15,648,096 for the FY20 DPW budget.

Water and Sewer Enterprise Fund - FY20 March 2019

The Water and Sewer Division is responsible for the operation and maintenance of the town's water, sanitary sewer, and storm water collection systems which include 135 miles of water mains, 10,770 service connections, 1500 Hydrants, 2,000 valves, 111 miles of sewer mains, and 117 miles of surface water drains and 3,296 catch basins. An Enterprise Fund established by Town Meeting in 2001, finances the Water and Sewer operations and fully reimburses the General Fund for expenses incurred, including OPEBs. Since FY09, the cost of debt service is no longer reimbursed to the General Fund but is budgeted within the Fund itself.

PROGRAM COSTS - WATER AND SEWER ENTERPRISE FUND					
CLASS OF EXPENDITURES	ACTUAL FY2018	BUDGET FY2019	REQUEST FY2020	FY20 vs. FY19	
				\$ CHANGE	% CHANGE
Permanent Full Time Salaries	2,152,911	2,446,236	2,449,176	2,941	0.1%
Temporary/Seasonal	9,872	15,000	15,000	0	0.0%
Overtime	138,462	151,527	151,250	(277)	-0.2%
Other	130,494	108,417	161,079	52,662	48.6%
Subtotal	2,431,739	2,721,180	2,776,505	55,325	2.0%
Services	302,456	353,798	353,798	0	0.0%
Supplies	150,007	123,020	123,020	0	0.0%
Other	24,603	10,580	10,580	0	0.0%
Utilities	100,129	101,865	102,061	196	0.2%
Capital	860,199	1,060,800	630,330	(430,470)	-40.6%
Intergovernmental (MWRA)	19,802,634	19,936,229	20,653,997	717,768	3.6%
Intragovernmental Reimbursement	2,233,725	2,314,117	2,318,020	3,903	0.2%
Debt Service	1,999,015	1,633,460	1,313,347	(320,113)	-19.6%
Reserve	0	299,260	282,817	(16,443)	-5.5%
TOTAL	27,904,507	28,554,309	28,564,475	10,166	0.0%
BENEFITS			1,510,193		
REVENUE	27,076,701	28,554,309	28,564,475	10,166	0.0%

The FY20 budget shows an increase of \$10,166 or 0%. The major changes are an increase in the amount paid to the MWRA of \$717,768, a number which is not yet final due to the timing of when the MWRA sets its rates. Capital costs are down.

The Subcommittee, by a vote of 5-0, recommended approval of \$28,564,247,550 for the FY20. Water and Sewer Enterprise Fund Budget.

Capital Subcommittee
FY 20 DPW CIP Requests
March 26, 2019

The Advisory Committee's Capital Subcommittee held a public hearing on the FY20 Capital Improvement requests of the Department of Public Works on March 12, 2019. In attendance were Deputy Town Administrator Melissa Goff, DPW Commissioner Andrew Pappastergion, Director of Water and Sewer Fred Russell, Director of Parks and Open Space Erin Gallentine, Director of Highways and Sanitation Kevin Johnson, Director of Engineering and Transportation Peter Ditto, Transportation Administrator Todd Kirrane, Town Arborist and Director of Conservation Tom Brady, and Senior Civil Engineer Jared Duval. Also in attendance were Subcommittee members Cliff Brown, Harry Friedman, Amy Hummel, John VanScoyoc, and Carla Benka. Other attendees Bicycle Advisory Committee Member John Bowman; Park and Recreation Commissioners John Bain, Nancy O'Conner, Dan Lyons, and Antonia Bellalta; TMMs Hugh Mattison, Rob Daves, Mark Lowenstein, Janice Khan, and Jules Milner-Brage; and Greenspace Alliance member Arlene Mattison.

17. TRAFFIC CALMING / SAFETY IMPROVEMENTS

Woodland Road Traffic Calming Project

Woodland Road neighbors submitted a Traffic Calming request in late 2013, citing safety concerns caused by the speed and volume of cut-through traffic bypassing the Route 9 corridor. In June 2016 Transportation Division staff prepared a Traffic Calming Initial Needs Assessment. The study included vehicle speeds, volumes, accident history, and other roadway characteristics, all of which, after evaluation, indicated that traffic calming measures were warranted.

The first of two neighborhood meetings was held in November 2016, and based on neighborhood feedback, staff began to develop a plan to submit to the neighborhood at a second meeting to be held a few months later. The second neighborhood meeting was postponed when the intention to locate a 9th elementary school on the Baldwin School site was announced. The second neighborhood meeting was subsequently held in November 2017.

Initial plans included a new section of sidewalk on Woodland Road, east of Hammond Street (Pine Manor side), to create a continuous ADA-compliant sidewalk from Heath Street to Hammond Street; new crosswalks and three raised speed humps on Woodland Road; and realigning the intersection and crosswalk on Woodland Road at Heath Street, near Pine Manor College.

A new ADA-compliant sidewalk on Woodland Road, west of Hammond Street (Beaver Country Day School side), from Hammond Street to Heath Street was also recommended, along with a new crosswalk and a 20 mph Safety Zone.

The recommendations were presented to the Transportation Board in March 2018 at

which time they were generally well received. However, Board members asked that the possible installation of a refuge island on Heath Street, at the intersection with Woodland be explored, to address their concerns about sight lines.

Approximately one year later, Traffic Calming plans were again presented to the Transportation Board, this time with no neighborhood preview, and with the addition of a pedestrian refuge island and a new crosswalk with rectangular rapid flash beacons on Heath Street, at its intersection with Woodland. The relocated crosswalk, refuge island, and rectangular rapid flash beacons revision was recommended by Howard Stein Hudson (HSH), the consultant hired by the Transportation Division to develop a Complete Streets Prioritization Plan. The Board approved the HSH recommendation, along with the Traffic Calming plans that they approved in March 2018, including speed bumps, radar display boards, and additional roadway elements, as well as continuous sidewalks along one side of Woodland Road to meet the requirements for ADA.

FY 20 CIP funds totaling \$265,000 are now requested to undertake all of the aforementioned improvements, with the exception of the sidewalks, which will be constructed at a later date as part of a different Town program.

The Subcommittee tabled its vote on this item in order to gather more information on the proposed treatment of the Heath/Woodland intersection.

8. BICYCLE ACCESS IMPROVEMENTS

Bicycle Access Improvements are a program of the Transportation Division of the Department of Public Works. They are funded on an annual basis to implement the recommendations of the Green Routes Master Network Plan, developed by the Bicycle Advisory Committee and approved by the Transportation Board.

FY 20 funds totaling \$31,000 are requested for three projects:

1. Contra-flow Bicycle Lane on Ivy Street, from St. Mary's Street to Carlton Street^[SEP]

This project will extend the existing contra-flow bicycle lane on Ivy Street, providing a way that allows a cyclist to travel legally from St. Mary's Street to Carlton Street and to connect with the existing north/south bicycle accommodations that run between the BU Bridge via Ivy Street and Essex Street and the Longwood Medical Area via Chapel Street.

Contra-flow bicycle lanes convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only. The proposed design includes a buffered yellow lane line marking between the motor vehicle and the contra-flow bicycle. Brookline has several contra-flow bicycle lanes, including one on the portion of Ivy Street between Essex and Carlton Streets, which have existed for a number of years without any reported accidents.

2. Shared Lane Markings on St. Mary's Street from Mountfort Street to Beacon Street

This project will provide shared lane markings ("sharrows") in both directions on St. Mary's Street between Mountfort and Carlton Streets. Although a lesser form of bicycle

accommodation, sharrows on narrow roadways such as St. Mary's Street (27 feet curb to curb) can be used to raise driver awareness of the need to share the road with cyclists, indicate to cyclists the proper location to ride to avoid right side hazards, and provide guidance on network connections.

3. Shared Lane Markings on Naples Road

This project provides for the shared lane markings on the portion of the Naples Road that is part of the resolution for the reconstruction of Babcock Street, approved by the Transportation Board and Select Board. The remainder of the project, including intersection realignments, new crosswalks, ADA compliant wheel chair ramps, and miscellaneous signs and markings will be covered under Chapter 90 funds.

The Capital Subcommittee recommends \$31,000 for this project. (Property Tax / Free Cash)

19. PARKING METER TECHNOLOGY UPGRADE

In 2013, the Town of Brookline undertook the upgrading of metered public parking spaces to provide customer convenience, ensure a regular turnover of spaces in high demand areas, and improve municipal maintenance and collection operations. This effort included the installation of both Digital Luke multi-space parking meters in public parking lots and over 500 IPS single space, credit-card-accepting parking meters in high-use districts along portions of Beacon Street, Harvard Street, Kent Street, and Brookline Avenue. Replacement of the remaining 1,320 coin-only single head parking meter mechanisms with the IPS credit-card-accepting meters continues. The per-unit price of \$610 per mechanism includes meter mechanism, installation and commissioning, and extended 12-month warranty.

It should be noted that the cost of data storage services for meters increased by \$63,176 in DPW's FY 20 operating budget.

The Capital Subcommittee recommends \$161,040 for this project. (Property Tax / Free Cash)

20. TRANSPORTATION NETWORK COMPANY FUNDS

To be voted in November 2019.

21. STREET REHABILITATION - TOWN

In 1992, the Department of Public Works undertook a comprehensive study of its roads (331 streets which add up to 97.6 miles of paved surface) 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 utilizing Chapter 90 funding from the State for certain thoroughfares.

Based on the recommendations of the 2007/2008 Override Study Committee, the 2008 Override approved by the voters included \$750,000 for streets and sidewalks, to be increased annually by 2.5%.

A subsequent assessment and report, indexing roadways according to their condition, noted that roadways with a 75 rating could be kept in good repair with maintenance instead of needing more expensive and time-consuming reconstruction. Reconstructing streets costs at least twice as much as performing preventative maintenance.

In 2014, there was a backlog of \$18,492,001, exclusive of curbing, sidewalks, etc.; in 2018 that backlog was approximately \$ 23.5 million, an increase of approximately \$1.2 million over 2016, attributable to inflation and deterioration. In order to maintain the PCI (Pavement Condition Index) that existed in 2014, the Town would have needed to invest approximately \$2 million dollars in street rehabilitation. As of 2018, to maintain a PCI rating of 73, the amount of needed funding was \$4 million. Stantec Consulting Services recommended that the minimal funding for road rehabilitation increase to \$3 million “to keep the network in ‘good’ condition and backlog relatively sustainable in the future.” [L] [SEP]

Last year, \$1.71 million was requested for Street Rehabilitation funds. The Advisory Committee recommended – and Town Meeting agreed – that an additional \$1.4 million of available dollars from the Parking Meter Fund should be added to the initial request. This year, Parking Meter funds are being reserved for contingency purposes in the Gateway East project, and only \$1.75 million in CIP funds is available for the Street Rehabilitation program. This allocation falls short of the investment needed to maintain a PCI of 73 and keep the backlog relatively sustainable.

It should also be noted that with the Town’s adoption of the Complete Streets program, additional costs are imposed on the Street Rehabilitation program. In order not to delay roadway reconstruction projects because of the need to develop, review, and approve Complete Streets concept designs, this past year the Engineering Department retained the services of an on-call consultant to develop concept designs that meet Complete Streets best practices. For FY 2019, the cost of the consultant’s services is \$28,300.

Further, there are additional construction costs for streets whose treatments triggers Complete Street design elements. In the case of one street in North Brookline, the increased cost related to bicycle access improvements (essentially pavement markings) added an additional \$14,500 (or 4%) to that project. In another case, the Complete Streets elements were rejected by the Transportation Board, which subsequently issued an exemption to the policy’s requirements. If the Complete Streets changes had gone forward, they would have added \$93,636 (or 11%) to the total costs of that project.

Streets scheduled for reconstruction with FY 20 CIP funds include portions of Heath Street, west of Hammond, and a portion of Woodland Road, also west of Hammond Street. Streets on the Mill and Overlay list include portions of Freeman and Smythe

Streets, Hamilton Road, and Linden Court. Remaining funds will be used for “Crack Seal and Patch” work on over 25 streets in different parts of the town.

The Capital Subcommittee recommends \$1,750,000 for this project. (Property Tax / Free Cash)

22. STREET REHABILITATION - STATE (No vote required)

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. Assuming an annual \$300 million statewide appropriation of Chapter 90 funds, the Town anticipates an annual State grant of \$960,605.

23. SIDEWALK REPAIR

Sidewalks that are not reconstructed as part of the street reconstruction program will be reconstructed with funds from DPW's Sidewalk Management Plan. Using the formula recommended by the 2007/2008 Override Study Committee and approved by voters in the 2008 Override, DPW has requested \$328,000 for sidewalk repair in FY 20.

In accordance with DPW policy, concrete rather than asphalt will be used in sidewalk reconstruction, except in cases determined by the Tree Warden in which asphalt will be used near street trees.

The Capital Subcommittee recommends \$328,000 for this project. (Property Tax / Free Cash)

25. FIRE ALARM CALL BOX SYSTEM

The Department of Public Works operates and maintains the Town's Fire Alarm Call Box System that consists of 1) 297 street call boxes along the public way; 2) 203 master station call boxes within buildings, 42 of which are publicly owned; and 3) a network of underground conduit and cable and overhead cable providing both power to the boxes and communication to central dispatch at the Public Safety Building. The system provides notification to Public Safety Dispatch for deployment of fire resources and emergency medical response. The DPW's ability to maintain this aging system has been hampered by inaccurate mapping of conduit and cable locations as well as out-of-date equipment.

In 2015, the DPW and the Fire Department engaged the services of Environmental Partners Group (EPG), Inc. to update the entire system inventory, perform a conditions study, and recommend options for the upgrade or replacement of the system. Information gathered from central dispatch revealed that only 239 “pulls” were recorded over a 10-year period from 130 street boxes, while 167 street boxes had no activity over the same 10-year period. The following options were provided by EPG to upgrade or replace the

system:

1. Repair the existing hard-wired system (\$3,800,000)
2. Replace 162 of the 297 street boxes and all 42 public master boxes with solar powered wireless boxes and abandon the hard-wired network (\$2,380,000)
3. Replace all 297 street boxes and all 42 public master boxes with solar powered wireless boxes and abandon the hard-wired network (\$4,100,000)

After the completion of the study, the Fire Department further reviewed system needs further and concluded that only 80 street boxes would be required to provide town-wide coverage. As a result, the DPW has recalculated the project recommendation as follows:

- Replace 42 Master Boxes with wireless boxes (\$295,000) ^{[[1]]}_{SEP}
- Replace 80 Street Boxes with solar powered wireless boxes (\$765,000) ^{[[1]]}_{SEP}
- TRX Legacy dispatch system upgrade (\$65,000) ^{[[1]]}_{SEP}

The Capital Subcommittee recommends \$1,125,000 for this project. (Property Tax / Free Cash)

27. STORMWATER IMPROVEMENTS & PERMIT COMPLIANCE

The Environmental Protection Agency'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.

The Capital Subcommittee recommends \$300,000 for this project. (Water & Sewer Enterprise Fund Budget)

28. WATER SYSTEM IMPROVEMENTS

The Water Division's consultant, Weston and Sampson, is expected to complete a 5-7 year plan for improvements to the Town's water system. The primary focus of the plan will be on: 1) distribution system redundancy; 2) fire flow improvement; and 3) identification and replacement of water mains prone to leaks and/or breaks.

The cost of implementing the plan, including design work and construction, for the first year is \$2,000,000. Funding for subsequent years will be included in the FY21-FY 26 CIP.

The Capital Subcommittee recommends \$2,000,000 for this project, (Water &

Sewer Enterprise Fund Bond)

29. WATER METER MOBILE TRANSMISSION UNIT (MTU) REPLACEMENT

The Town's water meters and infrastructure were installed in 2006. MTUs transfer meter consumption information to the collectors, and their batteries are nearing the end of their useful life. This program is designed to replace all 10,000+/- MTUs over a four year period. It started last year at which time Town Meeting approved \$265,000 for the first installment of the total \$1,090,000 project cost.

The Capital Subcommittee recommends \$265,000 for this project. (Water & Sewer Enterprise Fund Budget)

31. 44 NETHERLANDS ROAD – IMPROVEMENTS

The replacement of the crushed floor drain and concrete floor of the Water Division

building was originally estimated at \$150,000, and funds were approved at the 2018 Town Meeting for the project. Subsequently, the Building Department engaged a consultant, Desman Design Management, to undertake a conditions assessment of the floor; delamination (horizontal cracking) of cast-in-place concrete likely due to the corrosion of the embedded steel was discovered. The assessment also revealed that the drainage system within the garage does not function as designed. The recommended removal and replacement of the top 4” of the concrete slab, replacement of some of the reinforcing bars, and replacement of trench drains and area drains will require additional funds.

The Capital Subcommittee recommends \$455,000 for this project. (Water & Sewer Enterprise Fund Budget)

36. LARZ ANDERSON PARK

Comprising over 65 acres, Larz Anderson Park, listed on the National and State Registers of Historic Places, is the largest park in Brookline and the flagship park of the Town. Within its borders are not only architecturally significant buildings but also athletic fields, play equipment, picnic areas, walking paths, an ice rink, significant trees, a lagoon, sweeping slopes and magnificent views of the City of Boston.

If approved, FY20 CIP funds would be added to earlier allocations to undertake the full depth reclamation/reconstruction of the roadway that winds through the park as well as construction of associated handicapped accessible paths, parking, safety improvements, upgraded lighting, overall pathway improvements, and restoration of the stairs that are currently in poor and deteriorating condition.

This project is expected to go out to bid next winter. The roadway through the park will

be closed for the approximately three months of construction.

The Capital Subcommittee recommends \$600,000 for this project. (General Fund Bond)

39. ROBINSON PLAYGROUND

The Margaret E. Robinson Playground is a 2.38-acre park located at Cypress and Franklin Streets in a densely populated neighborhood. It was built on the site of the car barn lot for the Boston Elevated Railway Company in the 1890s. Current playground facilities include a youth baseball/softball field, paved basketball court, multi-use court play area, playground equipment, picnic area, and water play. The Playground is a participant in the Green Dog Program.

Renovation plans include 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 the design of the improvements. Construction costs are currently projected to be \$1.15 million.

The Capital Subcommittee recommends \$100,000 for this project. (Property Tax / Free Cash)

45. PARKS AND PLAYGROUNDS REHABILITATION & UPGRADE

This annual, town-wide program directs CIP funds to 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, play structures, safety surfacing, and drainage improvements.

Although needs shift from year to year, in general, the allocations are as follows:

- 95K-115K – Fence Repair & Replacement - Rails, poles, fabric, fixtures, backstops and gates. This is a 3- year contract that we rely on to complete work year round.
- 100K-125K – Field Renovation/Repair – Laser Grading and Cutting out Infields, Soil Classification and Amendments, Special Aeration/Overseeding/Field Treatments, Irrigation upgrades, Synthetic Turf Infill replenishment and repair.
- 70K-100K – Playground Repair & Replacement – Replacement of panels, slides, play components, safety surfacing, access, swings, ADA accommodations, etc.
- 30K+ - Park Furniture, Trash Receptacles, Signage, Drainage, Walls, Recycling, Bike Racks, Pavement/Concrete repair, etc.

The Capital Subcommittee recommends \$310,000 for this program. (Property Tax

/ Free Cash)

46. TOWN/SCHOOL GROUNDS REHAB

Town and School grounds require on-going structural improvements and repair. CIP funds are used to support a range of undertakings on Town or School grounds, including the installation of plantings, regrading, reseeding, tree work, construction of new retaining walls or concrete or asphalt walkways, purchase of trash receptacles and bike racks, drainage improvements, retaining walls, and repairs to such exterior features as stairs, treads, railings, and benches. These funds are not used for the replacement of areas over building structures or directly connected to buildings, such as entrance stairways or ramps, which are under the Building Department's jurisdiction.

The Capital Subcommittee recommends \$160,000 for this program. (Property Tax / Free Cash)

47. TENNIS COURTS/BASKETBALL COURTS

The Town maintains 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 not only the phased reconstruction/renovation/resurfacing of the courts but also for lighting and drainage improvements. In FY 20 funds will be used for five courts at the Baker School. Any remaining funds will be used for improvements to the courts at the Coolidge Corner School, which was not included in the recent expansion and renovation of the school.

The Capital Subcommittee recommends \$200,000 for this program. (Property Tax / Free Cash)

48. COMFORT STATIONS

The Larz Anderson comfort station and service area are in need of accessibility, structural and ventilation improvements. Its public restroom facilities 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. The office area will be renovated to better serve staff and park visitors.

This program anticipates fixture, drainage, ventilation, and access improvements to comfort stations system-wide with future funding.

The Capital Subcommittee recommends \$350,000 for this program. (Property Tax / Free Cash)

49. 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. It is critical to remove trees that have matured or have been impacted by storm damage or disease before they become public safety hazards. New tree plantings are also critical since they directly impact the tree-lined character of the community, improve storm water quality, provide oxygen, and reduce heat impact in the summer. Both the planting and watering of new trees are in-house operations, resulting in cost savings and better quality control.

Approximately 200 trees per year are removed, while 350-450 replacement trees are purchased each year. Last November 226 trees representing 35 different species were purchased to be planted on the Town's streets in the Spring.

There are other uses for the funds within this CIP allocation, including the removal of trees identified as safety hazards or concerns in the Town's four conservation areas and in its parks as well as structural and safety pruning of trees in the parks. In addition, funds may be used for new trees, planted in anticipation of the ultimate loss of existing mature trees.

This line item also includes funding for Urban Forestry Management in the Town's parks and open spaces. Storm damage, disease, and old age continue to reduce tree canopies. The funds are utilized to address such needs as tree removal, crown thinning, soil amendments, woodland canopy gap management, removal of invasive species, pest management, health and structural pruning, and planting. Such measures have been developed with the goals of supporting resistance to disease and pests and countering the rapid decline of trees left unmanaged in an urban environment. Work in this regard continues to be undertaken in collaboration with the Olmsted Tree Society of the Emerald Necklace Conservancy.

The Capital Subcommittee recommends \$235,000 for this program (Property Tax/Free Cash)