

# Project Submissions

## Section 3

**Five Year Department Submissions  
Section Index  
FY2018 - FY2022  
Alphabetical Order**

Title	Department	Group	Page
<b>Alphabetical by Title (sort)</b>			
ASA Small Field Renovation	DPW	Parks	3-111
Athletic Facility and Public Recreation Improvements	DPW	Parks	3-95
Athletic Fields Master Plan	Park & Recreation	Community Services	3-140
Birds Hill Water Tank Improvements	DPW	Water	3-172
Boat Launch on Charles River	Park & Recreation	Community Services	3-130
Building Management System Upgrade	Public Facilities	Public Facilities	3-87
Bunker Gear	Fire	Public Safety	3-33
Center at the Heights Computer Lab Hardware/Software Replacement	Finance	General Government	3-09
Central Ave. School Walking Trails	Public Schools	Public Schools	3-36
Cricket Field Building Renovation	Park & Recreation	Community Services	3-134
DPW Boiler Replacement - 470 Dedham Ave.	Public Facilities	Public Facilities	3-81
DPW Complex	DPW	Public Works	3-117
DPW Seasonal Storage Facility at the RTS	DPW	Public Works	3-97
DPW Specialty Equipment	DPW	Public Works	3-99
Drain System Improvements - Water Quality (EPA)	DPW	Drains	3-153
Emery Grover Partial Window Replacement	Public Facilities	Public Facilities	3-83
Emery Grover Roof Replacement	Public Facilities	Public Facilities	3-91
Energy Efficiency Upgrades	Public Facilities	Public Facilities	3-75
Facility Assessment for Sustainable Building Management	Public Facilities	Public Facilities	3-85
Fire Flow Improvements Design & Construction	DPW	Water	3-174
Fleet Replacement Capital Program	Various	Various	3-17
Fuel Station Relocation and Upgrade	DPW	Public Works	3-93
Full Day Kindergarten Space Modifications	Public Schools	Public Schools	3-67
Full Day Kindergarten Space Study	Public Schools	Public Schools	3-38
Improvements to Memorial Park Building and Grounds	Park & Recreation	Community Services	3-142
Library Furniture	Public Library	Public Library	3-119

**Five Year Department Submissions  
Section Index  
FY2018 - FY2022  
Alphabetical Order**

Title	Department	Group	Page
<b>Alphabetical by Title (sort)</b>			
Library RFID Conversion Project	Public Library	Public Library	3-121
Needham High School Classroom Expansion & Other Improvements	Public Schools	Public Schools	3-40
Non-Public Safety Data Center Servers and Storage Units	Finance	General Government	3-03
Permanent Message Boards	DPW	Fleet Maintenance	3-113
Police Department Firearm Replacement	Police	Public Safety	3-29
Police Use-Of-Force Training Simulator	Police	Public Safety	3-31
Pollard Bathrooms	Public Facilities	Public Facilities	3-77
Pollard Blue and Green Gym Upgrades	Public Facilities	Public Facilities	3-79
Pollard Locker Room Retrofit	Public Facilities	Public Facilities	3-89
Pollard Phased Improvements Feasibility Study	Public Schools	Public Schools	3-52
Public Cruiser Radio Replacement	Police	Public Safety	3-27
Public Playgrounds	Park & Recreation	Community Services	3-136
Public Safety Complex/Station 2	Various	Public Safety	3-25
Public Safety Data Center Services and Storage Units	Finance	General Government	3-05
Public Safety Mobile Devices	Finance	General Government	3-07
Public Works Infrastructure Program	DPW	Public Works	3-101
Purchase of Open Space	Park & Recreation	Community Services	3-124
Renovate/Reconstruct Emery Grover Building at Highland Ave. Location	Public Schools	Public Schools	3-69
Revenue and General Ledger/Accounting Software Package Replacemen	Finance	General Government	3-11
Rosemary Lake Camp Property and Trail	Park & Recreation	Community Services	3-132
Rosemary Recreation Complex	Park & Recreation	Community Services	3-126
RTS Horizontal Grinder (Tracked)	DPW	RTS	3-149
RTS Property Improvements	DPW	RTS	3-144
RTS Stormwater Plan	DPW	RTS	3-151
School Copiers	Public Schools	Public Schools	3-54
School Department Technology Request	Public Schools	Public Schools	3-58

**Five Year Department Submissions  
Section Index  
FY2018 - FY2022  
Alphabetical Order**

Title	Department	Group	Page
<b>Alphabetical by Title (sort)</b>			
School Document Management System	Public Schools	Public Schools	3-64
School Furniture	Public Schools	Public Schools	3-62
Sewer Main Extensions in Zone I and II	DPW	Sewer	3-157
Sewer Main Replacement	DPW	Sewer	3-159
Sewer Pump Station Improvements/Replacement	DPW	Sewer	3-155
Sewer Service Connections	DPW	Sewer	3-161
Sewer System Inflow & Infiltration Removal	DPW	Sewer	3-163
Specialty Equipment - Water	DPW	Water	3-170
Sustain the Hillside School as Swing Space for Future Town Use	Public Schools	Public Schools	3-72
Technology Systems and Applications Updates	Finance	General Government	3-15
Time Clock System	DPW	Public Works	3-107
Town Common Historic Redesign and Beautification	DPW	Public Works	3-115
Town Offices Replacement Furniture	Town Manager	General Government	3-01
Town Side Multi-Function Printer Devices	Finance	General Government	3-13
Traffic Improvements	DPW	Engineering	3-109
Trail Improvement Project: Reservoir Trail	Park & Recreation	Community Services	3-129
Transfer Station Floor Replacement	DPW	RTS	3-147
Water Distribution Study	DPW	Water	3-178
Water Distribution System Improvements	DPW	Water	3-165
Water Service Connections	DPW	Water	3-168
Water Supply Development	DPW	Water	3-176

**Five Year Department Submissions  
Section Index  
FY2018 - FY2022  
By Page Number**

Title	Department	Group	Page
Town Offices Replacement Furniture	Town Manager	General Government	3-01
Non-Public Safety Data Center Servers and Storage Units	Finance	General Government	3-03
Public Safety Data Center Services and Storage Units	Finance	General Government	3-05
Public Safety Mobile Devices	Finance	General Government	3-07
Center at the Heights Computer Lab Hardware/Software Replacement	Finance	General Government	3-09
Revenue and General Ledger/Accounting Software Package Replacemen	Finance	General Government	3-11
Town Side Multi-Function Printer Devices	Finance	General Government	3-13
Technology Systems and Applications Updates	Finance	General Government	3-15
Fleet Replacement Capital Program	Various	Various	3-17
Public Safety Complex/Station 2	Various	Public Safety	3-25
Public Cruiser Radio Replacement	Police	Public Safety	3-27
Police Department Firearm Replacement	Police	Public Safety	3-29
Police Use-Of-Force Training Simulator	Police	Public Safety	3-31
Bunker Gear	Fire	Public Safety	3-33
Central Ave. School Walking Trails	Public Schools	Public Schools	3-36
Full Day Kindergarten Space Study	Public Schools	Public Schools	3-38
Needham High School Classroom Expansion & Other Improvements	Public Schools	Public Schools	3-40
Pollard Phased Improvements Feasibility Study	Public Schools	Public Schools	3-52
School Copiers	Public Schools	Public Schools	3-54
School Department Technology Request	Public Schools	Public Schools	3-58
School Furniture	Public Schools	Public Schools	3-62
School Document Management System	Public Schools	Public Schools	3-64
Full Day Kindergarten Space Modifications	Public Schools	Public Schools	3-67
Renovate/Reconstruct Emery Grover Building at Highland Ave. Location	Public Schools	Public Schools	3-69
Sustain the Hillside School as Swing Space for Future Town Use	Public Schools	Public Schools	3-72
Energy Efficiency Upgrades	Public Facilities	Public Facilities	3-75
Pollard Bathrooms	Public Facilities	Public Facilities	3-77

**Five Year Department Submissions  
Section Index  
FY2018 - FY2022  
By Page Number**

Title	Department	Group	Page
Pollard Blue and Green Gym Upgrades	Public Facilities	Public Facilities	3-79
DPW Boiler Replacement - 470 Dedham Ave.	Public Facilities	Public Facilities	3-81
Emery Grover Partial Window Replacement	Public Facilities	Public Facilities	3-83
Facility Assessment for Sustainable Building Management	Public Facilities	Public Facilities	3-85
Building Management System Upgrade	Public Facilities	Public Facilities	3-87
Pollard Locker Room Retrofit	Public Facilities	Public Facilities	3-89
Emery Grover Roof Replacement	Public Facilities	Public Facilities	3-91
Fuel Station Relocation and Upgrade	DPW	Public Works	3-93
Athletic Facility and Public Recreation Improvements	DPW	Parks	3-95
DPW Seasonal Storage Facility at the RTS	DPW	Public Works	3-97
DPW Specialty Equipment	DPW	Public Works	3-99
Public Works Infrastructure Program	DPW	Public Works	3-101
Time Clock System	DPW	Public Works	3-107
Traffic Improvements	DPW	Engineering	3-109
ASA Small Field Renovation	DPW	Parks	3-111
Permanent Message Boards	DPW	Fleet Maintenance	3-113
Town Common Historic Redesign and Beautification	DPW	Public Works	3-115
DPW Complex	DPW	Public Works	3-117
Library Furniture	Public Library	Public Library	3-119
Library RFID Conversion Project	Public Library	Public Library	3-121
Purchase of Open Space	Park & Recreation	Community Services	3-124
Rosemary Recreation Complex	Park & Recreation	Community Services	3-126
Trail Improvement Project: Reservoir Trail	Park & Recreation	Community Services	3-129
Boat Launch on Charles River	Park & Recreation	Community Services	3-130
Rosemary Lake Camp Property and Trail	Park & Recreation	Community Services	3-132
Cricket Field Building Renovation	Park & Recreation	Community Services	3-134
Public Playgrounds	Park & Recreation	Community Services	3-136

**Five Year Department Submissions  
Section Index  
FY2018 - FY2022  
By Page Number**

Title	Department	Group	Page
Athletic Fields Master Plan	Park & Recreation	Community Services	3-140
Improvements to Memorial Park Building and Grounds	Park & Recreation	Community Services	3-142
RTS Property Improvements	DPW	RTS	3-144
Transfer Station Floor Replacement	DPW	RTS	3-147
RTS Horizontal Grinder (Tracked)	DPW	RTS	3-149
RTS Stormwater Plan	DPW	RTS	3-151
Drain System Improvements - Water Quality (EPA)	DPW	Drains	3-153
Sewer Pump Station Improvements/Replacement	DPW	Sewer	3-155
Sewer Main Extensions in Zone I and II	DPW	Sewer	3-157
Sewer Main Replacement	DPW	Sewer	3-159
Sewer Service Connections	DPW	Sewer	3-161
Sewer System Inflow & Infiltration Removal	DPW	Sewer	3-163
Water Distribution System Improvements	DPW	Water	3-165
Water Service Connections	DPW	Water	3-168
Specialty Equipment - Water	DPW	Water	3-170
Birds Hill Water Tank Improvements	DPW	Water	3-172
Fire Flow Improvements Design & Construction	DPW	Water	3-174
Water Supply Development	DPW	Water	3-176
Water Distribution Study	DPW	Water	3-178

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Town Offices Replacement Furniture** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **New Request**  
 Department: **Town Manager** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$50,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

Project Title: **Town Offices Replacement Furniture**

Fiscal Year: **2019**

**Project Description and Considerations**

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

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

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Non-Public Safety Data Center Servers and Storage Units** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Technology** Status: **New Request**  
 Department: **Finance** Funding Source: **General Fund**  
 Partners:

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

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

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

\$0

**Capital Project Request**

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

Fiscal Year:

**2018**

Project Description and Considerations

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Public Safety Data Center Servers and Storage Units** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Technology** Status: **New Request**  
 Department: **Finance** Funding Source: **General Fund**  
 Partners: **Public Safety**

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

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

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

**Capital Project Request**

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

Fiscal Year: **2019**

Project Description and Considerations

FY19 \$30,000.00 Digital Video Recorder

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Public Safety Mobile Devices** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Finance** Funding Source: **General Fund**  
 Partners: **Public Safety**

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$70,000**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

Project Title: **Public Safety Mobile Devices**

Fiscal Year: **2019**

**Project Description and Considerations**

FY19 \$35,000.00 Public Safety Mobile Hardware Replacement

FY20 \$35,000.00 Public Safety Mobile Hardware Replacement

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Center At The Heights Computer Lab Hardware / Software Replacement** Fiscal Year: **2020**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Finance** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$50,000**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2020**

**Project Description and Considerations**

FY 2020

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Revenue and General Ledger/Accounting Software Package Replacement** Fiscal Year: **2021**  
 Purpose: **Acquisition** Classification: **Technology** Status: **New Request**  
 Department: **Finance** Funding Source: **General Fund**  
 Partners: **Treasurer's Office, Accounting Department, Finance Department, School Business Office, School Human Resources, Payrol, IT Services**

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

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

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

**Capital Project Request**

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

Fiscal Year: **2021**

**Project Description and Considerations**

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Town Side Multi-Function Printer Devices** Fiscal Year: **2021**  
 Purpose: **Acquisition** Classification: **Technology** Status: **New Request**  
 Department: **Finance** Funding Source: **Revolving Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$142,400**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

\$0

**Capital Project Request**

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

Fiscal Year: **2021**

Project Description and Considerations

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Technology Systems and Applications Updates** Fiscal Year: **2022**  
 Purpose: **Acquisition** Classification: **Technology** Status: **New Request**  
 Department: **Finance** Funding Source: **Revolving Fund**  
 Partners: **DPW Engineering**

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$100,000**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

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

Fiscal Year: **2022**

**Project Description and Considerations**

FY22 \$100,000.00 Imagery and Planimetric Data Updates

1) Imagery and Planimetric Data Updates:

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Fleet Replacement Program** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Rolling Stock** Status: **Revised Request from the Prior CIP**  
 Department: Finance Funding Source: **General Fund**  
 Partners: Public Work, Public Facilities, Public Safety, Health and Human Services; Needham Schools

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

Primary Reason for the Request: Other (see below for information)  
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$7,693,400  
 Useful Life: More than five (5) years but less than eight (8) years  
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000  
 Total New FTE's:

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$7,693,400	\$1,004,825	\$2,252,146	\$1,959,162	\$521,855	\$1,955,412
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$7,693,400</b>	<b>\$1,004,825</b>	<b>\$2,252,146</b>	<b>\$1,959,162</b>	<b>\$521,855</b>	<b>\$1,955,412</b>

\$0

**Capital Project Request**

Project Title: **Fleet Replacement Program**

Fiscal Year: **2018**

**Project Description and Considerations**

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

**Energy Efficiency**

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

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

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

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

**Capital Project Request**

Project Title: **Fleet Replacement Program**

Fiscal Year: **2018**

Supplemental Information

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

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

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

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

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

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

Specific Questions:

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

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

Town of Needham  
Capital Improvement Plan  
January 2017

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

Town of Needham  
Capital Improvement Plan  
January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year*	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
107	DPW Highway	2008	CAMOPLAST SW4S	Yellow Iron	D	Primary Vehicle in Snow & Ice Program	2020	\$162,400.00			186,358		
113	DPW Highway	2008	CAMOPLAST SW4S	Yellow Iron	D	Primary vehicle in snow & ice program	2020	\$162,400.00			186,358		
121	DPW Highway	2007	Vermac UTILITY TRAILER	Trailer	E	Alerting Public of Projects & Events	2022	\$18,000.00					22,127
122	DPW Highway	2007	Vermac UTILITY TRAILER	Trailer	E	Alerting Public of Projects & Events	2022	\$18,000.00					22,127
124	DPW Highway	2009	ADDCO MINI UTILITY TRAILER	Trailer		Alerting Public of Projects & Events	2022	\$21,500.00					26,429
129	DPW Highway	2000	CUSTOM FLATBED TRAILER	Trailer		Trailer used to transport highway equipment and materials including bobcat, pavers, berm machines, etc. and large materials	2018	\$11,217.00	12,016				
143	DPW RTS	2010	CASE LOADER	Yellow Iron	D	Rubbish processing; compost processing; primary in Snow & Ice Program	2022	\$245,900.00					302,274
151	DPW Water	2008	INGERSOLL RAND AIR COMPRESSOR	Trailer		Construction Work	2020	\$13,960.00			16,019		
164	DPW Water	2008	Trailer ATLAS Copco	Trailer MDT Generator	D	Providing portable power during power outages at pumping stations	2020	\$31,200.00			35,803		
168	DPW Parks	2010	GORMAN UTILITY TRAILER	Trailer	D	Pump used to empty Rosemary Pool and on fields during flood events	2022	\$30,674.00					37,706
181	DPW Highway	2012	Elgin PELICAN Sweeper	Equipment	D	Street Sweeping	2019	\$263,200.00		291,815			
182	DPW Highway	2010	FREIGHTLINER ELGIN CROSSWIND SWEEPER	Truck	D	Street Sweeping	2019	\$263,200.00		291,815			
183	DPW Parks	2007	GIANT UTILITY LEAF PICKER TRAILER	Trailer	G	Removes leaves from fields and parks	2019	\$25,557.00		28,336			
186	DPW Parks	2010	GIANT LEAF VAC TRAILER	Trailer		Equipment Transport	2022	\$22,188.00					27,275
256	DPW Parks	2008	TRAILER UTILITY	Trailer	D	Chips tree debris	2020	\$38,348.00			44,005		
301	DPW Parks	2009	FORD E150 VAN	Passenger Van		Pool	2019	\$27,477.00		30,464			
328	DPW Parks	1998	Cross County Utility Trailer 16"	Trailer		Hauls mowers, tractors, diamond renovators, sports goals, and other equipment, supplies, and materials as needed	2018	\$4,995.00	5,351				
336	DPW Parks	2011	TORO Lawnmower	Tractor		Mowing large fields	2018	\$92,181.00	98,747				
350	DPW Parks	2010	JOHN DEERE TRACTOR LOADER 4720	Yellow Iron	D	Loads loam, park soil, fertilizer, sod, and wood; attachments used for tilling, aeration, grooming, and fertilizing	2022	\$44,755.93					55,016
400	Building Inspector	2005	Ford Taurus	Sedan	G	Field Work	2022	\$24,420.00					30,018
404	Human Services COA	2012	Ford E350 VAN	Passenger Van (14 Persons)		Passenger Transport	2022	\$81,545.50					100,240

Town of Needham  
Capital Improvement Plan  
January 2017

Unit #	Department	Year	Make/Model	Vehicle Type	Fuel Type	Primary Purpose	Target Year*	2016 Total Estimated \$	FY18 Funding Amount	FY19 Funding Amount	FY20 Funding Amount	FY21 Funding Amount	FY22 Funding Amount
452	Finance Assessing	2005	Ford Taurus	Sedan	G	Field Work	2019	\$32,252.00		35,758			
571	Police	2016	Ford Explorer	SUV	G		2018	\$30,380.00					
572	Police	2016	Ford Explorer	SUV			2018	\$30,380.00					
573	Police	2015	Ford Explorer K8A	SUV			2018	\$30,380.00					
574	Police	2016	Ford Explorer	SUV			2018	\$30,380.00					
581	Police Animal Control	2007	Ford F250	Utility Truck	G	Field Work	2018	\$41,020.00					
700	Facilities	2012	Ford Econ Van E250	Van	G	Electrician Vehicle; Equipment, Tools and Materials	2021	\$32,741.00				38,886	
704	Facilities	2005	Ford Econ Van E250	Van	G	HVAC Equipment, Tools, and Parts	2018	\$29,146.00	31,222				
707	Facilities	2008	Ford Econ Van E250	Van	G	HVAC Equipment, Tools, and Parts	2019	\$32,741.00		36,301			
712	Facilities	2011	Ford Econ Van E250	Van	G	Plumber Vehicle	2021	\$41,741.00				49,575	
713	Facilities	2012	Ford F450	Dump Truck	G	Grounds Work	2022	\$57,812.17					71,066
756	Facilities	2010	Ford F150	Pick Up	G	Field Work	2020	\$30,311.00			34,783		
Bus 14	School	2012	IC SCHOOL BUS	Mini Bus			2020	\$82,765.00			94,975		
C-01	Fire	2013	FORD EXPLORER	SUV	G	Command	2021	\$50,909.00				60,464	
C-06	Fire	2015	Ford F350	Pick Up	D	Emergency Response	2021	\$48,316.00				57,384	
C-42	Fire	2011	Ford Sedan	Sedan	G	Command	2020	\$35,787.00			41,066		
E-02	Fire	1999	E-ONE CYCLONE II FIRE TRUCK	Fire Truck	D	Emergency Response	2019	\$601,000.00		666,339			
PV	School Delivery	2008	Ford Econ Van	Van			2018	\$31,610.00	33,861				
R-02	Fire	2008	FORD E450 AMBULANCE	Ambulance	D	Emergency Response	2018	\$209,738.00	224,677				
RB	Fire	1967	GATOR RESCUE BOAT TRAILER	Trailer		Equipment Transport & Emergency Response	2018	\$21,225.00	22,737				
Van 1	School	2011	FORD E150 VAN	Passenger Van			2020	\$30,689.00			35,216		

Town of Needham  
Capital Improvement Plan  
January 2017

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Public Safety Complex/Station 2** Fiscal Year: **2017**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Town Manager** Funding Source: **General Fund**  
 Partners: **Police, Fire, Public Facilities, Building Department, IT,**

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

Primary Reason for the Request: **Other (see below for information)**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$63,590,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **May increase annual operating expenses by more than \$100,000**  
 Total New FTE's: **2**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2017**

**Project Description and Considerations**

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

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Police cruiser radio replacement** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Revised Request from the Prior CIP**  
 Department: **Police** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **State Contract** Estimated Project Cost:  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **The project should reduce the operating expenses**  
 Total New FTE's:

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

-\$80,563

**Capital Project Request**

Project Title: **Police cruiser radio replacement**

Fiscal Year: **2019**

**Project Description and Considerations**

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Police Department Firearm Replacement** Fiscal Year: **2020**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Revised Request from the Prior CIP**  
 Department: **Police** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$31,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

\$0

**Capital Project Request**

Project Title: **Police Department Firearm Replacement**

Fiscal Year: **2020**

**Project Description and Considerations**

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Police Use of Force Simulator** Fiscal Year: **2021**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Same Request from the Prior CIP**  
 Department: Funding Source: **General Fund**  
 Partners: **IT**

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

Primary Reason for the Request: **Public/employee health or safety**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$45,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

\$0

**Capital Project Request**

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

Fiscal Year: **2021**

**Project Description and Considerations**

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Bunker Gear** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **New Request**  
 Department: **Fire** Funding Source: **General Fund**  
 Partners: **None**

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

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

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

\$0

**Capital Project Request**

Project Title: **Bunker Gear**

Fiscal Year: **2018**

**Project Description and Considerations**

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

<http://firefightercancersupport.org/wp-content/uploads/2013/08/Taking-Action-against-Cancer-in-the-Fire-Service.pdf>

<http://www.cdc.gov/niosh/firefighters/ffCancerStudy.html>

<http://www.everyonegoeshome.com/wp-content/uploads/sites/2/2016/03/Cancer-Alliance-January-2015.pdf>

<http://www.cdc.gov/niosh/pgms/worknotify/pdfs/ff-cancer-factsheet-final.pdf>

Ignoring such research could be considered to negligent going forward.

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

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

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

**Capital Project Request**

Project Title: **Bunker Gear**

Fiscal Year: **2018**

Supplemental Information

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Central Ave. School Walking Trails** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **New Request**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **Parks & Recreation, Conservation Commission, DPW**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$210,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

*Preliminary Project Schedule:*

Schematic Design/Design Development/ Project Funding Year: FY18

Construction: FY19

New School Opens: September 2019 (FY20)

*Parameters Addressed:*

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

CPA: This project may be eligible for CPA funding.

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

Other Departmental Assistance: PPBC Project Management

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Full Day Kindergarten Space Study** Fiscal Year: **2018**  
 Purpose: **Long Range Plan/Study** Classification: **Building** Status: **New Request**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N/A**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$50,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

Parameters Addressed:

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Needham High School Classroom Expansion** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N?A**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$7,270,100**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

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

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

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

**Preliminary Project Schedule:**

Feasibility Design: FY17 (\$65,000)

Design: FY18 (November '17 STM)

Project Funding Year: FY19 (November '18 STM)

Contract Award: FY19 (December '18)

Construction Beginning Year: FY20 (Summer 2019) - FY21 (Summer 2020)

New Spaces Open: September 2020 (FY21)

**Potential Alternative Schedule:**

Feasibility Design: FY17 (\$65,000)

Design: FY18 (May '17 ATM)

Project Funding Year: FY19 (May '18 ATM, with emergency preamble)

Contract Award: FY18 (June '18)

Construction Beginning Year: FY19 (Summer 2018) - FY20 (Summer 2019)

New Spaces Open: September 2019 (FY20)

**Project Budget:**

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

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

Fiscal Year: **2018**

Parameters Addressed:

Permitting: As required by Town Boards.

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

Other Departmental Assistance: PPBC Project Management

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **NHS A Gym Upgrades** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **Needham Public Schools, NHS Athletics, Needham Booster Club**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$276,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

Project Title: **NHS A Gym Upgrades**

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

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

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

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

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

4. Building & electrical permits will be required.

8. Energy efficiency upgrades will reduce energy costs, but PFD no longer is responsible for energy.

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

16. Bleachers, lighting, and gym components will be permanently installed.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Needham High School Boiler Replacement** Fiscal Year: **2020**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **Needham Public Schools**

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$840,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **The project should reduce the operating expenses**  
 Total New FTE's:

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

**Capital Project Request**

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

Fiscal Year: **2020**

**Project Description and Considerations**

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

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

4. Building & electrical permits will be required.

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

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

16. The boiler will be permanently installed at NHS.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Replacement of Needham High School Chiller** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Equipment/Furniture** Status: **New Request**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$478,849**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **NHS Athletic Locker Reconfiguration & Addition** Fiscal Year: **2020**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N?A**

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

Primary Reason for the Request: **Other (see below for information)**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$45,200**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2020**

**Project Description and Considerations**

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

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

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

Parameters Addressed:

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

Other Departmental Assistance: PFD Public Facilities Department

**Capital Project Request**

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

Fiscal Year: **2020**

Supplemental Information

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Pollard Phased Improvements Feasibility Study** Fiscal Year: **2018**  
 Purpose: **Long Range Plan/Study** Classification: **Building** Status: **New Request**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N/A**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$65,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

Project Title: **Pollard Phased Improvements Feasibility Study**

Fiscal Year:

**2018**

**Project Description and Considerations**

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

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

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

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

Parameters Addressed:

Other Departmental Assistance: PPBC Project Management

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **School Copiers** Fiscal Year: **2018**  
 Purpose: **Long Range Plan/Study** Classification: **Equipment/Furniture** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **None**

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$370,060**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

\$0

**Capital Project Request**

Project Title: **School Copiers**

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **School Copiers**

Fiscal Year:

**2018**

Supplemental Information

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: <b>School Copiers</b>											Fiscal Year: <b>2018</b>				
Newman	Front Office	XEROX	5775P1	12/11/12	51%	59%	68%	8%	17%	-	13,770	-	-		
Newman	Hall Outside Office	Konica	KM 654 E	8/23/16	39%	44%	50%	56%	61%	-	-	-	-		
Newman	Hallway near caf	XEROX	5765PT	11/15/11	62%	10%	20%	31%	41%	12,490	-	-	-		
Newman	Down Stairs Hall	XEROX	5755APT	12/11/12	61%	72%	83%	11%	23%	-	11,390	-	-		
Newman	Main Office	XEROX	3550X	12/11/12	8%	10%	11%	2%	3%	-	2,450	-	-		
Pollard	8th Grade Hallway	konica	KM 654 e	9/1/15	7%	9%	10%	12%	13%	-	-	-	-		
Pollard	7th Grade work area	XEROX	5765PT	11/15/11	39%	6%	11%	17%	22%	5,740	-	-	-		
Pollard	Main Office	Konica	KM 754E	2/25/14	68%	84%	99%	115%	15%	-	-	14,460	-		
Pollard	Teacher's Lounge	Konica	KM654E	10/15/14	31%	38%	46%	52%	59%	-	-	-	-		
Pollard	Main Office	XEROX	WC5740APT	12/11/12	95%	12%	24%	36%	47%	5,740	-	-	-		
Pollard	Media Coin-OP	XEROX	3550	4/1/12	4%	4%	5%	5%	5%	-	-	-	-		
High Rock	Room 207	Konica	KM 654E	8/23/16	55%	59%	63%	67%	71%	-	-	-	-		
High Rock	Main Office	Konica	KM 754E	10/15/14	37%	47%	56%	66%	76%	-	-	-	15,180		
Eliot Elementary	Main Office	Konica	KM754 E	2/25/14	25%	31%	37%	43%	49%	-	-	-	-		
Eliot Elementary	Room 151	Xerox	5765PT	11/15/11	48%	59%	11%	22%	34%	-	10,850	-	-		
Eliot Elementary	Room 210	Xerox	5135PT	11/15/11	80%	91%	11%	21%	32%	-	6,030	-	-		
Kase- Cong. Church	Main Office	Canon	IR2230	8/11/05	33%	35%	37%	39%	40%	-	-	-	-		
Administration	Color Copier Producti	Xerox	Color 560	2/25/14	51%	62%	74%	85%	11%	-	-	-	43,460		
<b>Totals</b>										<b>46,790</b>	<b>80,850</b>	<b>54,200</b>	<b>88,490</b>	<b>99,730</b>	

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **School Department Technology Request** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **None**

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$2,337,025**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$2,337,025	\$463,500	\$292,000	\$565,500	\$556,325	\$459,700
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$2,337,025</b>	<b>\$463,500</b>	<b>\$292,000</b>	<b>\$565,500</b>	<b>\$556,325</b>	<b>\$459,700</b>

\$0

**Capital Project Request**

Project Title: **School Department Technology Request**

Fiscal Year:

**2018**

**Project Description and Considerations**

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

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

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

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

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **School Department Technology Request**

Fiscal Year: **2018**

Supplemental Information

FY18-22 School Technology Request Summary							<b>DRAFT</b>
<b>Replacement Costs</b>							
<b>Hardware</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>	<b>FY 22</b>	<b>5-Yr Total</b>	
Broadmeadow	\$42,000	\$1,500	\$15,000	\$1,500	\$1,500	\$61,500	\$61,500
Eliot	\$42,000	\$1,500	\$15,000	\$1,500	\$1,500	\$61,500	\$61,500
Hillside	\$42,000	\$1,500	\$15,000	\$1,500	\$1,500	\$61,500	\$61,500
Mitchell	\$1,500	\$1,500	\$15,000	\$42,000	\$1,500	\$61,500	\$61,500
Newman	\$3,000	\$3,000	\$15,000	\$43,500	\$3,000	\$67,500	\$67,500
High Rock	\$43,500	\$3,000	\$15,000	\$3,000	\$3,000	\$67,500	\$67,500
Pollard	\$3,000	\$43,500	\$55,500	\$3,000	\$3,000	\$108,000	\$108,000
NHS	\$40,500	\$4,500	\$69,000	\$211,500	\$126,000	\$451,500	\$451,500
Emery Grover	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$15,000	\$15,000
Printers	\$0	\$0	\$22,000	\$22,825	\$42,700	\$87,525	\$87,525
IWB & Proj.	\$90,000	\$80,000	\$80,000	\$80,000	\$110,000	\$440,000	\$440,000
<b>Hardware Totals</b>	<b>\$310,500</b>	<b>\$143,000</b>	<b>\$319,500</b>	<b>\$413,325</b>	<b>\$296,700</b>	<b>\$1,483,025</b>	
<b>Infrastructure</b>							
	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>	<b>FY22</b>	<b>5-Yr Total</b>	
Servers	\$21,000	\$30,000	\$30,000	\$30,000	\$30,000	\$141,000	\$141,000
Network Hardware	\$25,000	\$20,000	\$20,000	\$20,000	\$20,000	\$105,000	\$105,000
Wireless Infra. Data Cabling	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$25,000	\$25,000
Wireless Infra. Access Points	\$10,000	\$58,000	\$58,000	\$58,000	\$58,000	\$242,000	\$242,000
<b>Infrastructure Total</b>	<b>\$61,000</b>	<b>\$113,000</b>	<b>\$113,000</b>	<b>\$113,000</b>	<b>\$113,000</b>	<b>\$513,000</b>	
<b>Total</b>	<b>\$371,500</b>	<b>\$256,000</b>	<b>\$432,500</b>	<b>\$526,325</b>	<b>\$409,700</b>	<b>\$1,996,025</b>	
<b>IWB Costs</b>							
	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>	<b>FY22</b>	<b>5-Yr Total</b>	
Bmeadow	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000	\$50,000
Eliot	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000	\$50,000
Hillside	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0	\$0
Mitchell	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000	\$50,000
Newman	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$50,000	\$50,000
High Rock	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$60,000	\$60,000
Pollard	\$25,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$95,000	\$95,000
NHS	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$25,000.00	\$85,000	\$85,000
<b>IWB Total</b>	<b>\$90,000.00</b>	<b>\$80,000.00</b>	<b>\$80,000.00</b>	<b>\$80,000.00</b>	<b>\$110,000.00</b>	<b>\$440,000</b>	
<b>New Capital requests</b>							
	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>	<b>FY22</b>	<b>5-Yr Total</b>	
Security Cameras / Key Entry	\$20,000.00	\$0.00	\$0.00	\$0.00	\$20,000.00	\$40,000.00	\$40,000.00
AV Gym Video Displays	\$6,000.00	\$6,000.00	\$6,000.00	\$0.00	\$0.00	\$18,000.00	\$18,000.00
AV Mobile PA System	\$30,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$30,000.00	\$30,000.00
AV Projection and Screens Auditorium / Cafeteria	\$36,000.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$43,000.00	\$43,000.00
<u>AV IWB K</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$90,000.00</u>	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$90,000.00</u>	
Audio Visual Auditorium / Cafeteria / Gym	\$72,000.00	\$6,000.00	\$103,000.00	\$0.00	\$0.00	\$181,000.00	\$181,000.00

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: <b>School Department Technology Request</b>					Fiscal Year:	<b>2018</b>
Audio Visual Auditorium / Cafeteria / Gyms	\$72,000.00	\$6,000.00	\$103,000.00	\$0.00	\$0.00	
NHS TV Studio	\$0.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$120,000.00
<b>New Capital Total</b>	<b>\$92,000.00</b>	<b>\$36,000.00</b>	<b>\$133,000.00</b>	<b>\$30,000.00</b>	<b>\$50,000.00</b>	<b>\$341,000.00</b>
<b>Grand Totals</b>	<b>\$463,500.00</b>	<b>\$292,000.00</b>	<b>\$565,500.00</b>	<b>\$556,325.00</b>	<b>\$459,700.00</b>	<b>\$2,337,025.00</b>
<u>Vs. Planned Funding Technology Replacement</u>	<u>\$307,925.00</u>	<u>\$282,500.00</u>	<u>\$347,500.00</u>	<u>\$177,050.00</u>	<u>N/A</u>	<u>\$1,114,975.00</u>
<u>Required Additional Funding</u>	<u>\$155,575.00</u>	<u>\$9,500.00</u>	<u>\$218,000.00</u>	<u>\$379,275.00</u>	<u>N/A</u>	<u>\$1,222,050.00</u>

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **School Furniture** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$184,806**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

\$0

**Capital Project Request**

Project Title: **School Furniture**

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

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

The anticipated replacement schedule is depicted below:

**FY18-FY22 Funding Plan**

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **School Document Management System** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N/A**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$178,800**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

Project Title: **School Document Management System**

Fiscal Year: **2019**

**Project Description and Considerations**

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

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

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

**Capital Project Request**

Project Title: **School Document Management System**

Fiscal Year: **2019**

Supplemental Information

Document Management Purchase & Document Conversion Expense

Emergy Grover Active Files	# Cabinets Small (1)	# Cabinets Large (2)	Cubic Feet	Calculated # Boxes	Calculated Pages	Box Pickup Service (3)	Scanning Service	Total Cost	
Human Resources	3	9	312	260	689,000	650	44,785	45,435	
Financial Operations	0	0	-	-	-	-	-	-	
Payroll	0	0	-	-	-	-	-	-	
Food Service	0	0	-	-	-	-	-	-	
Special Education	24	11	544	453	1,201,333	1,133	78,087	79,220	
Subtotal	27	20	856	713	1,890,333	1,783	122,872	124,655	
<u>Other Files</u>									
Financial Operations	0	0	-	-	-	-	-	-	Assume major storage is IV
Subtotal	0	0	-	-	-	-	-	-	
Grand total	27	20	856	713	1,890,333	1,783	122,872	124,655	
								125,000	

(1) Small: 1'W x 4'H x 2'D      8 Cubic Feet

(2) Small: 4'W x 4'H x 2'D      32 Cubic Feet

(3) Pickup estimate is \$2.50/box

(3) Estimated cost of prepping, scanning, indexing is \$0.05 - \$0.08/page. Estimate based on \$0.065/page mid-rate.

Conversion

1 Small Bankers Box =      1.2 Cubic Feet

1 Small Bankers Box =      2650 Pages

**Document Management  
Purchase & Installation**

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Full Day Kindergarten Space Modifications** Fiscal Year: **2020**  
 Purpose: **Construction** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N/A**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$50,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2020**

**Project Description and Considerations**

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

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

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

**Parameters Addressed:**

Project Costs Not Included: Operational cost of Full-Day Kindergarten implementation

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Renovate/Reconstruct Emery Grover Building at Highland Avenue Location** Fiscal Year: **2020**  
 Purpose: **Construction** Classification: **Building** Status: **Same Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **Community Preservation Fund**  
 Partners: **N/A**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$14,724,500**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **May increase annual operating expenses between \$50,001 and \$100,000**  
 Total New FTE's: **0**

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

\$30,000

**Capital Project Request**

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

Fiscal Year: **2020**

**Project Description and Considerations**

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

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

**Preliminary Project Schedule:**

Feasibility Study: FY14 (\$30,000)

Design: FY20 (May '19 ATM)

Project Funding Year: FY21

Emery Grover Occupies Swing Space: FY21-FY22

Construction: FY21-FY22

New Building Opens: 9/2022 (FY23)

**Project Budget:**

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

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

**Parameters Addressed:**

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

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

Other Departmental Assistance: PPBC Project Management

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

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

Fiscal Year: **2020**

Supplemental Information

**Emery Grover Renovation Cost Estimated, Based on 2013 DesignLab Study**

<b>21,235 SF Building</b>		<b>Feasibility</b>	<b>Construction</b>	<b>A/E</b>	<b>Constr Mgmt</b>	<b>Temporary</b>	<b>FF&amp;E</b>	<b>Other</b>	<b>Total</b>	<b>Cost/SF</b>	<b>Less CPA</b>	<b>Net Cost</b>
FY13 Project Cost (DesignLab)		30,000	7,339,550	982,906	73,120	834,000	402,500	35,000	9,697,076		8,350,000	1,347,076
TOTAL		30,000	7,339,550	982,906	73,120	834,000	402,500	35,000	9,697,076	\$457	8,350,000	1,347,076
		0%	76%	10%	1%	9%	4%	0%	100%			
6.00%	FY14 Cost Multiplier @ 6%	30,000	7,779,923	1,041,880	77,507	884,040	426,650	37,100	10,277,101	\$484	8,350,000	1,927,101
6.00%	FY15 Cost Multiplier @ 6%	30,000	8,246,718	1,104,393	82,158	937,082	452,249	39,326	10,891,927	\$513	8,350,000	2,541,927
6.00%	FY16 Cost Multiplier @ 6%	30,000	8,741,521	1,170,657	87,087	993,307	479,384	41,686	11,543,642	\$544	8,350,000	3,193,642
5.00%	FY17 Cost Multiplier @ 5%	30,000	9,178,598	1,229,190	91,441	1,042,973	503,353	43,770	12,119,324	\$571	8,350,000	3,769,324
5.00%	FY18 Cost Multiplier @ 5%	30,000	9,637,527	1,290,649	96,014	1,095,121	528,521	45,958	12,723,791	\$599	8,350,000	4,373,791
5.00%	FY19 Cost Multiplier @ 5%	30,000	10,119,404	1,355,182	100,814	1,149,877	554,947	48,256	13,358,480	\$629	8,350,000	5,008,480
5.00%	FY20 Cost Multiplier @ 5%	30,000	10,625,374	1,422,941	105,855	1,207,371	582,694	50,669	14,024,904	\$660	8,350,000	5,674,904
5.00%	FY21 Cost Multiplier @ 5%	30,000	11,156,643	1,494,088	111,148	1,267,740	611,829	53,203	14,724,649	\$693	8,350,000	6,374,649
8	TOTAL PROJECT COST	30,000	11,156,643	1,494,088	111,148	1,267,740	611,829	53,203	14,724,649	\$693	8,350,000	6,374,649
	TOTAL COST (ROUNDED)	30,000	11,156,600	1,494,100	111,100	1,267,700	611,800	53,200	14,724,500	\$693	8,350,000	6,374,500

Square Footage 21,235

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Sustain the Hillside School as Swing Space for Future Town Use** Fiscal Year: **2021**  
 Purpose: **Construction** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Needham Public Schools** Funding Source: **General Fund**  
 Partners: **N?A**

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

Primary Reason for the Request: **New function or service**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$18,960,500**  
 Useful Life: **Between twelve (12) and eighteen (18) years**  
 Budget Impact: **May increase annual operating expenses between \$50,001 and \$100,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

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

Fiscal Year: **2021**

**Project Description and Considerations**

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

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

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

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

Preliminary Project Schedule:

Feasibility Design: FY21

Design: FY22

Override Ballot Question: FY22

Site Construction: FY23-FY24

Modernized Hillside Opens: July, 2024

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

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

Extend Useful Life: See Project narrative above.

Other Departmental Assistance: PPBC Project Management

**Capital Project Request**

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

Fiscal Year: **2021**

Supplemental Information

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

<b>45,005 SF Building</b>		<b>Feasibility</b>	<b>Construction*</b>	<b>A/E</b>	<b>FF&amp;E</b>	<b>Constr Mgnt</b>	<b>Total</b>	<b>Cost/SF</b>
FY14 Project Cost (D&W)		-	8,835,814	1,649,200	1,032,000	412,300	11,929,314	
TOTAL		-	8,835,814	1,649,200	1,032,000	412,300	11,929,314	\$265
		0%	74%	14%	9%	3%	100%	
6.00%	FY15 Cost Multiplier @ 6%	-	9,365,963	1,748,152	1,093,920	437,038	12,645,073	\$281
6.00%	FY16 Cost Multiplier @ 6%	-	9,927,921	1,853,041	1,159,555	463,260	13,403,777	\$298
5.00%	FY17 Cost Multiplier @ 3.8%	-	10,424,317	1,945,693	1,217,533	486,423	14,073,966	\$313
5.00%	FY18 Cost Multiplier @ 3.8%	-	10,945,532	2,042,978	1,278,410	510,744	14,777,664	\$328
5.00%	FY19 Cost Multiplier @ 3.8%	-	11,492,809	2,145,127	1,342,330	536,282	15,516,548	\$345
5.00%	FY20 Cost Multiplier @ 3.8%	-	12,067,450	2,252,383	1,409,447	563,096	16,292,375	\$362
5.00%	FY21 Cost Multiplier @ 3.8%	100,000	12,670,822	2,365,002	1,479,919	591,251	17,206,994	\$382
5.00%	FY22 Cost Multiplier @ 3.8%	100,000	13,304,363	2,483,252	1,553,915	620,813	18,062,343	\$401
<u>5.00%</u>	<u>FY23 Cost Multiplier @ 3.8%</u>	<u>100,000</u>	<u>13,969,581</u>	<u>2,607,415</u>	<u>1,631,611</u>	<u>651,854</u>	<u>18,960,461</u>	<u>\$421</u>
9 Years	TOTAL PROJECT COST	100,000	13,969,581	2,607,415	1,631,611	651,854	18,960,461	\$421
	TOTAL COST (ROUNDED)	100,000	13,969,600	2,607,400	1,631,600	651,900	18,960,500	\$421

\* Excludes modular temporary classrooms

Square Footage 45,005

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Energy Efficiency Upgrades** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **Building Occupants**

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

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

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$170,000	\$57,000	\$8,000	\$5,000	\$100,000	
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$60,000		\$7,000	\$53,000		
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$230,000</b>	<b>\$57,000</b>	<b>\$15,000</b>	<b>\$58,000</b>	<b>\$100,000</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Energy Efficiency Upgrades**

Fiscal Year: **2018**

**Project Description and Considerations**

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

Recent Projects Include:

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

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

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

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

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

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Pollard Bathrooms** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Building** Status: **New Request**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **School Department**

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

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

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

\$0

**Capital Project Request**

Project Title: **Pollard Bathrooms**

Fiscal Year: **2018**

**Project Description and Considerations**

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

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

4. This work will require a building permit.

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

16. Fixtures will be permanently installed.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Pollard Blue and Green Gym Upgrades** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **Needham Public Schools**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$829,610**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

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

Fiscal Year: **2018**

Project Description and Considerations

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

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

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

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

4. Building & electrical permits will be required.
15. This request will modernize building components, thereby maximizing the usefulness of the building.
16. Flooring, lockers, and wall coverings will be permanently installed.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **DPW Boiler Replacement – 470 Dedham Ave** Fiscal Year: **2019**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Informational Only Details Incomplete**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **DPW**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$400,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

\$0

**Capital Project Request**

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

Fiscal Year: **2019**

**Project Description and Considerations**

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

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

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

4. Plumbing and electrical permits will be required.

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

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

16. Public Facilities is in support of this request.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Emery Grover Partial Window Replacement** Fiscal Year: **2019**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Informational Only Details Incomplete**  
 Department: **Public Facilities** Funding Source: **Community Preservation Fund**  
 Partners: **Needham Public Schools, Community Preservation Committee**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$309,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

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

Fiscal Year: **2019**

**Project Description and Considerations**

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

This project may be eligible for CPA funds.

4. Building permits will be required.

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

12. This project may be eligible for CPA funding.

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

16. Windows will be permanently installed.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Facility Assessment for Sustainable Building Management** Fiscal Year: **2019**  
 Purpose: **Long Range Plan/Study** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **Needham Public Schools**

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$85,165**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

Project Title: **Facility Assessment for Sustainable Building Management**

Fiscal Year:

**2019**

**Project Description and Considerations**

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

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

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

This was previously submitted.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Building Management System Upgrade** Fiscal Year: **2020**  
 Purpose: **Construction** Classification: **Technology** Status: **Informational Only Details Incomplete**  
 Department: Public Facilities Funding Source: **General Fund**  
 Partners: ITC, School Department

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$322,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

\$0

**Capital Project Request**

Project Title: **Building Management System Upgrade**

Fiscal Year: **2020**

**Project Description and Considerations**

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

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

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

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Pollard Locker Room Retrofit** Fiscal Year: **2021**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Facilities** Funding Source: **General Fund**  
 Partners: **Needham Public Schools**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **No Estimate Has Been Determined** Estimated Project Cost: **\$378,107**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

Project Title: **Pollard Locker Room Retrofit**

Fiscal Year: **2021**

**Project Description and Considerations**

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

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

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

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

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Emery Grover Roof Replacement** Fiscal Year: **2022**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Future Request Details Incomplete**  
 Department: **Public Facilities** Funding Source:  
 Partners: **Needham Public Schools, Community Preservation Committee**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$159,035**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

Project Title: **Emery Grover Roof Replacement**

Fiscal Year: **2022**

**Project Description and Considerations**

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

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

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

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

4. Building permits will be required.

12. This project may be eligible for CPA funding.

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

16. Roofing will be permanently installed.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Fuel Station Relocation and Upgrade** Fiscal Year: **2017**  
 Purpose: **Construction/Renovation** Classification: **Facility** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works** Funding Source: **General Fund**  
 Partners: **Public Facilities, Police, Fire, School Dept, COA, Assessors, Building**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$1,451,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's:

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

**Capital Project Request**

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

Fiscal Year: **2017**

**Project Description and Considerations**

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

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

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

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

- 4. Conservation Commission, and Planning Board permitting may be required.
- 16. Above ground tanks will be installed at location. They may be relocated should the facility be moved.
- 18. Undetermined at this time, but experience shows that assistance from ITC is required for projects of this type.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Athletic Facility and Public Recreation Improvements** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Parks and Forestry** Funding Source: **Community Preservation Fund**  
 Partners: **Park and Recreation**

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$3,939,234**  
 Useful Life: **Between twelve (12) and eighteen (18) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$255,701	\$31,000	\$207,000			\$17,701
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$3,683,533	\$254,000	\$363,000	\$2,500,000	\$450,000	\$116,533
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$3,939,234</b>	<b>\$285,000</b>	<b>\$570,000</b>	<b>\$2,500,000</b>	<b>\$450,000</b>	<b>\$134,234</b>

\$0

**Capital Project Request**

Project Title: **Athletic Facility and Public Recreation Improvements**

Fiscal Year: **2018**

Project Description and Considerations

The Department of Public Works and Park and Recreation have developed a maintenance plan for all fields, which includes new or total reconstruction, partial renovation, irrigation, drainage improvements, and equipment replacement or repair (bleachers, fences/backstops, player benches and miscellaneous equipment) for multi-use fields and ball diamonds.

FY18 - Cricket Field – Drainage and field renovation for Field #2, irrigation renovation for both fields, Engineering & Construction

FY19 - Claxton Field – Upgrade field lighting system to more energy efficient lights: Construction

Turf Field Replacement at DeFazio & Memorial Park – remove the existing turf carpet, regrade, and install new artificial field turf: Engineering

FY20 - Turf Field Replacement at DeFazio & Memorial Park – remove the existing turf carpet, regrade, and install new artificial field turf: Construction

FY21 - McLeod Field - drainage repair, amend soils, and install new sod: Construction

FY22 - Softball Skin Renovation Claxton 1 & 2: Design & Construction

ADDITIONAL FUTURE PROJECTS:

DeFazio Drain Pipe - the project involves construction of a structural lining within an existing 42" drain pipe crossing McLeod Field at the DeFazio complex

Avery Field – improve parking (DPW road project)

Broadmeadow School Diamond #1 expand infield skin and irrigation adjustment, drainage for diamond #2

DeFazio Complex – install walking path with protective netting to DeFazio #1

High Rock Fields– new backstop, player benches, perimeter fencing

Perry Park – new backstop, player benches, player fencing

Dwight Field – improve player bench areas and overall fencing

DeFazio Tot-Lot – improve fencing

Construction of new athletic fields (locations - TBD)

4. Conservation Commission permitting can be satisfied by preparing the pipe and the installation of hay bales and sedimentation barriers and Planning Board filing may be required.

12. All items except for Turf Fields are eligible for Community Preservation Funds.

14. Several sink holes have developed in the past seven years due to the DeFazio drain pipe being crushed.

18. The Department of Public Works will be partnering with Park and Recreation on each of these projects.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **DPW Seasonal Storage Facility @ RTS** Fiscal Year: **2018**  
 Purpose: **Design/Engineering** Classification: **Building** Status: **Informational Only Details Incomplete**  
 Department: **Public Works** Funding Source: **General Fund**  
 Partners: **PPBC**

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$6,860,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$550,000	\$550,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$6,310,000		\$6,310,000			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$6,860,000</b>	<b>\$550,000</b>	<b>\$6,310,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
\$0						

**Capital Project Request**

Project Title: **DPW Seasonal Storage Facility @ RTS**

Fiscal Year: **2018**

Project Description and Considerations

The on-going DPW relocation feasibility study determined that approximately 14,000 s.f. of storage space required to fulfill the DPW operations programming needs cannot fit on the existing site (470/484 Dedham Avenue). Weston & Sampson evaluated many options and locations, recommending that a seasonal storage facility be constructed in a remote location consisting of a building of approximately 7,000 s.f. and covered storage (canopy) of another 7,000 s.f. After reviewing recommendations with the PPBC and Board of Selectmen, Weston & Sampson has recommended that the facility be located at the RTS. Locating the seasonal storage building at the RTS will necessitate the relocation of the "materials processing area" to the currently unused acreage adjacent to the site. Design funding is proposed for FY2018 and construction funding for FY2019.

While the funding source is listed as General Fund, enterprise funding may also be recommended. Project features continue to be refined and the design and construction estimates are subject to change.

4. Conservation Commission , Planning Board and/or DEP permitting may be required.
7. Construction of the new building will impact building and grounds and insurance costs.
17. Work proposed for the relocation of the materials processing area is primarily site work,
18. Undetermined at this time, but experience shows that assistance from ITC is often required for this type of project.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **DPW Specialty Equipment** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Heavy Equipment** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$385,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$385,000	\$30,000	\$72,000	\$80,000	\$163,000	\$40,000
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$385,000</b>	<b>\$30,000</b>	<b>\$72,000</b>	<b>\$80,000</b>	<b>\$163,000</b>	<b>\$40,000</b>
\$0						

**Capital Project Request**

Project Title: **DPW Specialty Equipment**

Fiscal Year: **2018**

**Project Description and Considerations**

**Replacement for FY 18:**

New – Parks & Forestry – Field Renovator - Renovates baseball diamonds - will be the 2nd field renovator in the fleet which is more appropriate for the acreage that Parks & Forestry maintains; de-weed clay skins, makes clay skins look fresh and play worthy

**Replacement for FY 19:**

Unit #344 - Parks & Forestry - Specialty Mower - Performs 2nd cut on the marquees fields, large machine

**Replacement for FY 20**

Unit # 351 – Parks & Forestry - (Tractor) - Multi-use utility equipment

**Replacement for FY 21**

New - Highway - Loader mounted snow blower - clearing gutter lines, parking lots, loading trucks

**Replacement for FY 22**

Unit #334 - Parks & Forestry - Specialty Mower - Performs 2nd cut on the marquees fields, small machine

The change from the prior year submission is that the Tractor (#351) and the Specialty Mower (#344) were switched.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Public Works Infrastructure Program** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$9,957,063**  
 Useful Life: **Between twelve (12) and eighteen (18) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$678,000	\$228,000		\$190,000		\$260,000
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$9,279,063	\$1,534,000	\$2,025,000	\$1,490,500	\$2,771,513	\$1,458,050
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$9,957,063</b>	<b>\$1,762,000</b>	<b>\$2,025,000</b>	<b>\$1,680,500</b>	<b>\$2,771,513</b>	<b>\$1,718,050</b>

\$0

**Capital Project Request**

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

**Project Description and Considerations**

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

Due to the additional need for drainage work related to the Labor Day storm in 2013 the Traffic Signal & Intersection Improvement requests have been delayed two years. The FY 16 existing Storm Drain Capacity Improvement request has been delayed one year, and the Street Resurfacing and Sidewalk Program has been reduced throughout all five years of the request.

**Street Resurfacing:**

This Program is essential to improve the structural and surface integrity of the Town's approximately 279 lane miles of accepted streets. The Town targets 17 lane miles per year to get a desired life cycle of 15 to 20 years. The primary strategy of this program is asphalt paving and incidental work. Incidental work may include asphalt berm curb, new grass shoulders, corner reconstruction including handicapped ramps, minor drainage improvements, street sign replacement, traffic markings, and signs.

Applying this repair strategy in a timely manner will extend the useful life of the roadway for up to 15 years. Installing a monolithic asphalt berm curb better defines the edge of road, improves drainage and protects the shoulder from erosion.

The Town targets roads with a PCI of below 70 for resurfacing or specialized treatment. The Town targets a PCI of 60 or below for repair/renovation. The Town's goal is to maintain its roadway network at an average PCI rating of 75.

The funding for FY 2018 has increased from the prior year's submission to address the overall Pavement Condition Index (PCI) which was 67 in the Fall of 2014.

The cost per lane mile for resurfacing in FY 2017 is \$78,000 or more per lane mile. A basic asphalt overlay at 1.5 inches with asphalt berm curb and casting adjustments is \$60,000 per lane mile.

The average useful life for asphalt paving is 15 years.

FY18 - \$800,000

FY19 - \$820,000

FY20 - \$840,500

FY21 - \$861,513

FY22 - \$883,050

**Capital Project Request**

Project Title: **Public Works Infrastructure Program**

Fiscal Year:

**2018**

**Supplemental Information**

**Traffic Signal & Intersection Improvements:**

The costs are estimated by Engineering and require conceptual scope of work for project level costs that have not yet been determined. This Program will fund Traffic Signal Improvements & Intersection Improvements and new traffic signal installations where none currently exist.

FY18 - Highland Avenue @ West Street, Engineering & Design \$128,000

FY19 - Highland Avenue @ West Street, Construction - \$505,000

FY20 - Great Plain Avenue @ Greendale Avenue, Engineering & Design \$110,000

FY21- Great Plain Avenue @ Greendale Avenue, Construction \$643,000

FY22 - Central Ave @ Great Plain Ave, Engineering & Design \$160,000

**Sidewalk Program:**

This Program requires funding for the Town to address the failing network of sidewalks throughout the community. There are over 160 miles of accepted sidewalks in Needham. Over half of the Town's sidewalks do not comply with current standards and require significant improvements including the installation of handicapped ramps. Sidewalk improvements must comply with Federal and State laws and construction standards. The cost for sidewalk rehabilitation and reconstruction can vary significantly. Current estimates have identified over \$20,000,000 in backlogged sidewalks in need of repair.

Fiscal year 2017 contract pricing to reconstruct one mile of asphalt sidewalk with incidental costs is estimated to be \$242,888 per mile (\$46.00/lf). Contract pricing to install a mile of granite curb with minor drainage improvements and incidental costs is estimated to be \$269,280 per mile (\$51.00/lf). These costs do not include engineering, design, tree removal and replacement, major drainage improvements or major public or private property adjustments.

FY18 - \$484,000

FY19 - \$300,000

FY20 - \$450,000

FY21- \$382,000

FY22 - \$500,000

**Storm Drain Capacity Improvements:**

This Program provides funding to improve roadway drainage capacity. The March 2002 Stormwater Master Plan identified a number of areas throughout Needham where improvements are required to resolve flooding problems and illicit discharge. Locations for improvements have been prioritized within the plan. This funding request also includes, but is not limited to, the installation of additional storm drains and the replacement and extension of drains on Manning Street, Hoover Road, Concord Road and Burnside Road with larger capacity drains. Since the issuance of the 2002 Stormwater Master Plan numerous multi-unit developments have been built or planned in the Town of Needham. These developments include new roads with drainage structures and roof or sump connections that are then connected to existing Town systems. These new connections have increased the load on the Town's drainage system and caused flooding in some areas.

**Capital Project Request**

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

Due to extensive drainage repairs that were required on Greendale Ave, funds for FY 17 were diverted from Ardmore Road & Hunnewell Street to complete that project, and that project is being requested again for FY 18.

FY18 - Ardmore Rd. & Hunnewell St. or Other Prioritized Projects - Engineering & Design \$100,000

FY19 - Ardmore Rd. & Hunnewell St. or Other Prioritized Projects - Construction \$350,000

FY20 - Concord St. & Burnside Rd. or Other Prioritized Projects - Engineering & Design \$80,000

FY21 - Concord St. & Burnside Rd. or Other Prioritized Projects - Construction \$510,000

FY22 - TBD or Other Prioritized Projects - Engineering & Design \$100,000

Future Areas to be considered, but not yet prioritized:

Carey Road (area 2) - Engineering \$42,800

Carey Road (area 2) - Construction \$156,800

Foxhill Rd., Canterbury Lane, South St., and X-Country (Area 10) - Engineering \$41,800

Lower Hunnewell St. Drainage improvements, Engineering & Construction 305,000

Foxhill Rd., Canterbury Lane, South St., and X-Country (Area 10) - Construction

Oak St. (Area 8), Mackintosh Ave. (Areas 3 & 7), Oxbow Rd. (Area 9) and West St. (Area 11)

Fairfield St. and Elmwood Rd. (Area 5)

**Storm Drain System Repairs:**

This Program provides funding to repair failing storm drainage infrastructure within Town easements that have been discovered through investigation work. These projects will include the replacement of existing culverts that have deteriorated over time and are restricting flow. This work will eliminate flooding and capacity issues in the immediate vicinity. This project will provide funding over five years for the Drains Division to address small projects related to the Labor Day 2013 storm drainage remediation.

FY18 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$50,000

FY19 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$50,000

FY20 - No Funding Request

FY21 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$75,000

FY22 - TBD (Reserved for projects related to Labor Day 2013 Flooding) - Construction \$75,000

**Brooks and Culverts – Repair and Maintenance:**

It is the intention of the DPW to expend Capital Funds to address the issue of poorly draining brooks, streams, waterways and culverts throughout the Town that have been severely damaged by heavy rains/storms in the past. Flooding in March 2010 caused the failure of retaining walls, resulting in extensive erosion and silt deposits in brooks and streams. The silt has provided a medium for vegetation and affected the flow of water, and the situation has resulted in the loss of useable abutting property and flooded basements. The current conditions are beyond the means of DPW equipment and personnel. It will require a detailed investigation, a plan of recommended improvements, a design drawing and specifications, environmental permitting and bidding of construction to be overseen by the Town's Engineering Division. This will return the waterways to a condition that the DPW will be able to maintain.

**Capital Project Request**

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

The Environmental Protection Agency (EPA) is currently finalizing stronger requirements for stormwater and permitting under the NPDES permit. The Town will need to continue to demonstrate its efforts regarding cleaning and improvements to water quality of brook and culverts to avoid fines from the EPA.

FY18 - Culvert at Meadowbrook Rd. - Construction \$200,000

FY19 - No Funding Request

FY20 - Continued wall repair along Rosemary Brook - Construction \$200,000

FY21 - Meredith Circle - Engineering & Construction \$300,000

FY22 - No Funding Request

Future Projects include, but are not limited to, the following locations:

Winding River Road

Locust Lane

Fuller Brook Avenue

Oxbow Road

Webster & Howland Streets

Brookside Road & Forest Street

Chestnut Street & Carriage Lane

Emerson Place

Pennsylvania Avenue

Elder Road

**Roadway Reconstruction**

Request for full road reconstruction. This differs from the road rehabilitation program because it requires more complete design and construction. Rehabilitation similar to a house renovation whereas reconstruction is similar to a knock-down and rebuild. Roads do not just consist of the top layer of asphalt, it is a complete system that has its own foundation. The Town evaluates the sight distance, drainage, handicap ramps, sidewalks, subsurface utilities, public utility poles and overhead utilities. The physical conditions of roads to be considered for this article would be shape, foundation and traffic volume. This relates to the historic nature of how the Town has evolved historically with roads being constructed as opposed to being designed. This is a multi-year process requiring surveying, designing, utility evaluation and construction.

Some of the roads that may be targeted for reconstruction include:

Marked Tree Road

Nehoiden Street

Kingsbury Street

Sections of Central Avenue

Webster Street from Dedham Avenue to South Street

**Capital Project Request**

Project Title: **Public Works Infrastructure Program**

Fiscal Year: **2018**

**Bridge Repairs**

Surrounded on three sides by the Charles River, the Town jointly maintains a number of bridges with neighboring communities. The Massachusetts Bridge Inspection Program has identified a number of bridges that have some level of deficiency and has recommended repairs. This Program is essential to improve the structural and/or surface integrity of all bridges throughout Needham. Capital Project costs will include surveying, engineering evaluation, design, and repair or reconstruction. Bridges are one of the infrastructure assets whose value and depreciation are now tracked under the GASB 34 Program.

Massachusetts Department of Transportation issued a report on Newell's Bridge which is on Central Ave to Dover, which indicated that the bridge is deficient and in need of repair. The Town will work with Dover to determine how to address these deficiencies.

Cooks (Elliot) Bridge - Central Ave to Newton Upper Falls presently under construction with construction to be completed by May 2017.

Other Bridges (all were recently reconstructed)

- Fisher's Bridge, South St to Dover
- Pierce's Bridge, Charles River St. to Dover and So. Natick
- Kendrick Bridge to Newton

No funding requested at this time.

- 4. Conservation Commission permitting may be required for drainage repairs, brooks and culvert repair and roadway reconstruction.
- 14. Nehoiden St. and Marked Tree Rd. documentation being a safety issue from School Safety Committee.

Summary Table

	Street Resurfacing		Traffic Signal & Intersection Improvements			Sidewalk Program		Storm Drain Capacity Improvements			Storm Drain System Repair		Brooks & Culverts		Total		
	Const.	CPR	Engin.	Const.	CPR	Const.	CRP	Engin.	Const.	CPR	Const.	CPR	Const.	CPR	Engin.	Const.	Total
2018	\$ 800,000	CP-1-2016	\$ 128,000		CP-2-2016	\$ 484,000	CP-3-2016	\$ 100,000		CP-4-2016	\$ 50,000	CP-5-2016	\$ 200,000	CP-6-2016	\$ 228,000	\$ 1,534,000	\$ 1,762,000
2019	\$ 820,000	CP-67-2016		\$ 505,000	CP-75-2016	\$ 300,000	CP-79-2016		\$ 350,000	CP-83-2016	\$ 50,000	CP-87-2016			\$ -	\$ 2,025,000	\$ 2,025,000
2020	\$ 840,500	CP-68-2016	\$ 110,000		CP-76-2016	\$ 450,000	CP-80-2016	\$ 80,000		CP-84-2016			\$ 200,000	CP-92-2016	\$ 190,000	\$ 1,490,500	\$ 1,680,500
2021	\$ 861,513	CP-69-2016		\$ 643,000	CP-77-2016	\$ 382,000	CP-81-2016		\$ 510,000	CP-85-2016	\$ 75,000	CP-89-2016	\$ 300,000	CP-93-2016	\$ -	\$ 2,771,513	\$ 2,771,513
2022	\$ 883,050	CP-74-2016	\$ 160,000		CP-78-2016	\$ 500,000	CP-82-2016	\$ 100,000		CP-86-2016	\$ 75,000				\$ 260,000	\$ 1,458,050	\$ 1,718,050
Total	\$ 4,205,063		\$ 1,118,000	\$ 1,546,000		\$ 2,116,000		\$ 1,140,000		\$ 250,000		\$ 700,000		\$ 678,000	\$ 9,279,063	\$ 9,957,063	

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Time Clock System** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works** Funding Source: **General Fund**  
 Partners: **Public Facilities Operations, Human Resource, ITC**

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$72,000**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$72,000	\$72,000				
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$72,000</b>	<b>\$72,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
\$0						

**Capital Project Request**

Project Title: **Time Clock System**

Fiscal Year: **2018**

**Project Description and Considerations**

The Town does not currently have a time clock system that tracks the hours of the staff. This project is to implement a time clock system to track the hours of the staff who work for the DPW and PFD, with the understanding that this program may be extended to other staff throughout the Town. This system will integrate with the Town's accounts payable software to facilitate the processing of payroll. It will allow staff to "punch-in" at the beginning and the end of their shifts to ensure that payroll records are accurate and resolve discrepancies currently found in the paper system. It will reduce the current double entry system where the division generates a manual time card and then this time card is entered into our payroll system. This system should be properly sourced so that it may be used with other bargaining groups and/or non-represented employees should it be deemed appropriate.

Employee Licensing \$2,400 - includes free support and free upgrades

Hardware Support \$2,940 - includes hardware trouble shooting and firmware updates

This will be a time clock system for NIPEA and BCTIA employees that will integrate with the Infinite Visions payroll system.

Costs:

Hardware & Software

Annual Maintenance Costs

Installation & Training

1. The ITC needs to identify if there will be any additional costs with other vendors such as Active Directory.
2. The ITC budget will have to be increased to accommodate the licensing.
7. The ITC budget will have to be increased to accommodate the licensing.
11. There would be software licensing.
18. Information Technology Center and Human Resources will be required to provide assistance in order to complete the project.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Traffic Improvements** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **New Request**  
 Department: **Public Works - Engineering** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Public/employee health or safety**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$449,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **May increase annual operating expenses between \$5,001 and \$25,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$449,000	\$249,000	\$50,000	\$50,000	\$50,000	\$50,000
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$449,000</b>	<b>\$249,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>

\$0

**Capital Project Request**

Project Title: **Traffic Improvements**

Fiscal Year: **2018**

**Project Description and Considerations**

This Article will allow for the funding of projects that are recommended by the Traffic Management Advisory Committee (TMAC). These recommendations include items such as permanent speed monitoring devices, traffic calming measures, and school zone enhancements. These items are not presently included in the Department of Public Works operating budget. The \$50,000 annual request will support one or two TMAC construction related requests per year such as 500 feet of roadway granite curb installation, two school zone installations, two average traffic calming installations, several radar sign installations or sign and/or pavement markings.

FY18 Cedar Street and Central Avenue Intersection Improvements (\$199,000)

This project was recommended by the Safe Routes to School Study that was done for the Eliot School. The project will improve the safety for vehicles and pedestrians crossing at the intersection by relocating curbing and sidewalk areas. This will shorten the distance of the cross-walk and allow the crossing guard to have better control over traffic flow and pedestrian crossings.

Examples of Previous TMAC Requests

- Flashing LED pedestrian signs and school zone signs for Eliot School
- Handicap ramps and cross-walks at various locations
- Children playing signs

Examples of Potential Future TMAC Projects

- Granit curb installation on Paul Revere Rd.
- Advisory curve signs with speed tabs on Forest St.
- Traffic signal timing adjustments at Great Plain Ave. and Central Ave.

4. Depending on recommendation from TMAC there may be permitting requirements with Conservation Commission, Planning Board, Zoning Board of Appeals and Building Department.
6. The maintenance budget for the Highway Division will need to be increased so that improvements can be maintained. The cost of maintenance will vary based on the type of improvement made. This can vary from \$100-\$1,000 annually.
7. If electricity is required for any of these improvements then the Needham Light, Electric, and Gas Program budget may be increased to fund the electricity costs.
14. This request is in response to the recommendations by the Traffic Management Advisory Committee (TMAC) and Safe Routes to School report.
16. Improvements under this article could include signage, signaling, curbing, or other traffic calming measures that will be permanently installed at the determined locations.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Asa Small Field Renovation** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **New Request**  
 Department: **Public Works - Parks and Forestry** Funding Source: **General Fund**  
 Partners: **Park and Recreation, Needham Youth Sports Groups**

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Prior Projects** Estimated Project Cost: **\$141,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$141,000	\$141,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$141,000</b>	<b>\$141,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Asa Small Field Renovation**

Fiscal Year: **2019**

**Project Description and Considerations**

This project will address field deficiencies on the Asa Small ball diamond at the DeFazio complex. The project will include striping, regrading, amending soils, new baseball skin surface and new irrigation system. The field conditions were not addressed as part of the Field of Dreams project. This project may include additional amenities funded by user groups including field lights, score board, bleachers and an increased sized batting cage.

- 4. This project may require permitting from Conservation Commission, Planning Board, Zoning Board of Appeals and Building Department.
- 12. This project may be eligible for Community Preservation funds under Recreation.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Permanent Message Boards** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Engineering** Funding Source: **General Fund**  
 Partners: **Town Manager's Office**

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

Primary Reason for the Request: **New function or service**  
 How was the Estimated Project Cost Determined: **Prior Projects** Estimated Project Cost: **\$224,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$224,000	\$87,000	\$90,000	\$47,000		
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$224,000</b>	<b>\$87,000</b>	<b>\$90,000</b>	<b>\$47,000</b>	<b>\$0</b>	<b>\$0</b>
\$0						

**Capital Project Request**

Project Title: **Permanent Message Boards**

Fiscal Year: **2019**

**Project Description and Considerations**

In support of the Board of Selectmen's goals this request is for up to seven (7) permanently installed message boards to communicate with residents. This will alleviate competition for the current message boards. The new message boards will have the capacity to be programmed remotely and simultaneously from a Town work station or a laptop. There will be minimal operating costs, including a data plan to allow for remote updates and electricity for each location.

Currently the Public Works Department has 3 mobile message boards that are used for large construction projects. These message boards are removed from construction projects and relocated to various sites in Town when requested for non-construction notifications to residents and commuters. The existing message boards are difficult to maneuver, time consuming to program, and are often not available for non-emergency notices.

In the May 2014 Annual Town Meeting funding was approved for a pilot program at the RTS. This message board was installed in the Spring of 2016 and the Town is establishing policies for the use of this board.

The increase in cost from prior years submission is a reflection of the actual costs of the board, which the Town opted for a double sided board, and the stone wall that serves both an aesthetic and structural function.

FY19 - Two Message Boards

Proposed Locations:

Public Safety Building

Fire Station #2

South St @ Dedham Ave

Central Ave @ Great Plain Ave

Greendale Ave @ Great Plain Ave

4. Conservation Commission permitting may be required for some locations. Depending on the location a building permit and Design Review Board Approval may be required.

6. There will be minimal operating costs for these boards which included cellular service for remote programming and electricity.

16. These message boards will be permanently installed at the chosen location.

17. This request is to improve public property by installing informational message boards.

18. The Town Manager's Office will assist in the programming of these message boards.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Town Common Historic Redesign and Beautification** Fiscal Year: **2019**  
 Purpose: **Construction/Renovation** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Parks and Forestry** Funding Source: **Community Preservation Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$600,300**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$600,300	\$600,300				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$600,300</b>	<b>\$600,300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Town Common Historic Redesign and Beautification**

Fiscal Year: **2019**

**Project Description and Considerations**

The Town is presently completing an internal design process for the Town Common. This will include improved hardscape, landscaping, amenities, tree plantings, and utility improvements that are consistent with the historic nature of the common as well as the improvements being made in the downtown streetscape improvement project.

This will include improving the landscaping with new sod, trees, and plantings. The hardscape services will be upgraded to a more low maintenance and handicapped accessible materials. The pathways and landscaping will be adjusted to become more aesthetically and functionally enhanced. There will be increased electrical and sound capacity to accommodate Town-wide events. This work will complement the new Town Hall and enhance the new "blue" tree.

This project has been pushed back one year to allow for the Downtown Streetscape Improvements to be completed.

4. This project may be subject to Planning Board review.

12. This project is being evaluated for eligibility of Community Preservation Funds through the category of Historic Preservation.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **DPW Complex** Fiscal Year: **2020**  
 Purpose: **Construction/Renovation** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works** Funding Source: **General Fund**  
 Partners: **PPBC, Building**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: Estimated Project Cost: **\$37,950,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **May increase annual operating expenses between \$5,001 and \$25,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$2,950,000		\$2,950,000			
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$35,000,000				\$35,000,000	
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$37,950,000</b>	<b>\$0</b>	<b>\$2,950,000</b>	<b>\$0</b>	<b>\$35,000,000</b>	<b>\$0</b>
\$0						

**Capital Project Request**

Project Title: **DPW Complex**

Fiscal Year: **2020**

**Project Description and Considerations**

The Public Services Administration Building (PSAB, 500 Dedham Ave) was occupied by the DPW in November 2011, eliminating the space problems and air quality issues experienced on the second floor of the DPW Operations Building. However, significant deficiencies continue to exist throughout the 470 Dedham Avenue building internally and the DPW site externally. Operations and maintenance staff are located in this facility. The poor condition of the current building, unmet equipment and vehicle storage, stormwater quality issues require a solution.

At the 2015 Annual Town Meeting, the sum of \$40,000 was appropriated for a feasibility study for the appropriate location(s) for a facility to provide the various DPW services. Weston and Sampson was engaged to develop a DPW building program and site features capable of cost effectively and efficiently supporting the services offered by the DPW. The study included inspection of existing facilities, identification of deficiencies, interviews with staff, identification of current and future needs, development of conceptual alternatives, evaluation of preferred sites, and a recommendation for phased reconstruction of the 470/484 Dedham Avenue parcel with associated construction of an off-season storage facility to accommodate that portion of the DPW program that does not fit on Dedham Avenue.

The proposed layout includes demolition of the existing DPW structures at 470 and 484 Dedham Avenue, and construction of a new consolidated public works facility. Related projects include replacement of the fuel island, demolition of the existing fuel island, and demolition of the "old" salt shed. That project is proposed for FY2018 and is included in the CIP as a separate request. Additionally, construction of a seasonal storage building and relocation of the material processing area at the RTS is proposed. Design of that project is proposed for FY2018, also under a separate CIP submittal. Construction of the DPW operations facility will be the final phase of the DPW Complex improvements.

While funding for the reconstruction project at 470/484 Dedham Avenue is listed as General Fund, enterprise funding may also be recommended. Project features continue to be refined and the design and construction estimates are subject to change.

4. The project will require Planning, Conservation, and possibly DEP permitting.
7. Construction of the new building will impact building and grounds and insurance costs.
18. Undetermined at this time but experience shows that assistance from ITC is required for projects of this type.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Library Furniture** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **New Request**  
 Department: **Library** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$284,240**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$284,240	\$45,320	\$97,920	\$84,000	\$57,000	
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$284,240</b>	<b>\$45,320</b>	<b>\$97,920</b>	<b>\$84,000</b>	<b>\$57,000</b>	<b>\$0</b>

#VALUE!

**Capital Project Request**

Project Title: **Library Furniture**

Fiscal Year: **2019**

**Project Description and Considerations**

The "new" library has been open to the public for more than ten years, and, due to heavy use, the furniture is beginning to show wear and tear. Both public and staff computer chairs are slowly breaking and the covering on the arms is splitting. For staff members, the computer chair is their desk chair. As staff chairs break, a public computer chair has been taken from the public computers and moved into a staff office. Some of the mesh on the Community Room stackable mesh chairs is unravelling, the backs are separating from the frames, and food has been caught in the mesh and proven unable to be removed. The forty-two cloth public arm chairs are showing the ravages of heavy use, particularly the arms of the chairs. The thirty-eight leather public arm chairs are also beginning to show wear.

The prices listed in this request were obtained from manufacturer's websites.

29 Public computer chairs @ \$380 each	\$24,070
25 Staff computer chairs @ \$850 each	\$21,250
160 Community Room Audience stackable chairs @ \$612 each	\$97,920
42 Public lounge chairs (cloth) @ \$2,000 each	\$84,000
38 Public lounge chairs (leather) @ \$1,500 each	\$57,000
Total	\$284,240

1. The services of a design consultant may be needed
16. All furniture would be installed at the library
18. Public Facilities personnel may be needed to help move furniture

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Library RFID Conversion Project** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**  
 Department: **Library** Funding Source: **General Fund**  
 Partners:

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$121,975**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **May increase annual operating expenses between \$5,001 and \$25,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$127,200	\$127,200				
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$127,200</b>	<b>\$127,200</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

- \$5,225

**Capital Project Request**

Project Title: **Library RFID Conversion Project**

Fiscal Year: **2019**

**Project Description and Considerations**

RFID, Radio Frequency Identification, is the technology toward which libraries are migrating, as a means to increase efficiency and to cut down on repetitive action tasks. The advantages of the system include:

1. Reduction in the time necessary to check in and check out library materials (In FY16, the library checked in and out more than 1,000,000 items--129,938 checkouts were done by customers on self-checkout).
2. Information can be read faster from the RFID tags than from barcodes
3. The items in a stack can be read at the same time, as opposed to barcodes that must be read one at a time. Checking a stack of materials in and out reduces repetitive action tasks, saving time and helping to avoid repetitive stress syndrome in employees
4. Patron self-checkout is simplified--patrons do not have to carefully line up a barcode with a laser beam
5. Opens the possibility of electronic inventorying, item searching, and shelf order checking

There are forty-three Minuteman Library Network libraries. Currently (fall 2016) twelve Minuteman libraries are using RFID; four libraries are placing RFID tags in materials (the first step in migrating to RFID); and four more have expressed interest. The current thinking and discussions at Minuteman committee meetings is that, eventually, all Minuteman libraries will move to RFID. The libraries that are now operating with RFID have formed a "service" group for interlibrary loan service. Requests from these libraries go automatically to the other RFID libraries (they are the larger libraries in the system), where items are found and requests filled faster than at the non-RFID libraries. In FY16, Needham requested 66,390 items from other libraries for the use of Needham residents. Needham sent 61,613 items to other libraries. With an RFID system that includes a portable scanner, these items could have been retrieved faster from the library's shelves, increasing the efficiency of a library employee.

RFID System Cost:

RFID tags:	150,000 books @ \$0.16 each	\$24,000		
	35,000 media @ \$0.63	\$22,050	Total	\$46,050
Conversion Stations:				
	2 @ \$11,178 each			\$22,356
Staff Station Equipment:				
	4 Staff Stations (Circulation Desk) @ \$4,895 each	\$19,580		
	1 Portable Scanner @ \$5,200	\$5,200	Total	\$24,780
Sel-Checkout Equipment:				
	3 Self-Checkout Stations @ \$6,860 each			\$20,580
Software:				
	4 Staff Stations @ \$266 each	\$1,064		
	3 Self-Checkout Stations @ \$2,540 each	\$7,620	Total	\$8,684
Installation and Training:				
	Pre-Installation Site Survey	\$1,500		
	Remote Configuration/Training	\$750		
	On-Site Training (per day)	\$2,500	Total	\$4,750
Total Project Cost:				\$127,200

**Capital Project Request**

Project Title: **Library RFID Conversion Project**

Fiscal Year: **2019**

Supplemental Information

6. The operating budget will need to be increased for the yearly cost of RFID tags:

Books:	10,500 @ \$0.16 each	\$1,680		
Media:	3,200 @ \$0.63 each	\$2,016		
			Total	\$3,696

and software licensing:

4 staff stations @ \$266 each	\$1,064			
3 self-checkout stations @\$2,540	\$7,620			
			Total	\$8,684

Total yearly operating budget increases \$12,380

11. Annual licensing listed under #6

16. All equipment will be installed at the library.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Purchase of Open Space** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Land** Status: **Revised Request from the Prior CIP**  
 Department: Park and Recreation Funding Source: **Community Preservation Fund**  
 Partners: Conservation Commission, Board of Selectmen

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

Primary Reason for the Request: Other (see below for information)  
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$1,000,000  
 Useful Life: More than twenty-five (25) years  
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000  
 Total New FTE's: 0

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$1,000,000	\$1,000,000				
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Purchase of Open Space**

Fiscal Year: **2018**

**Project Description and Considerations**

Without much notice, opportunities to purchase private land to add to the open space inventory surface each year. In particular, some opportunities arise during discussions of the development of private land. This project request is to keep all aware of the possibility, in the near future, of a purchase moving forward. This request is a "place holder" in the event a parcel that benefits the community becomes available.

Unexpectedly, in FY 2010, the purchase of two parcels of land on Carol Road and Brewster Drive, as well as a parcel on Charles River Street, adjacent to Walker-Gordon Field were all funded through CPA funds. It is possible that some purchases would relate to easements, as opposed to full ownership of the land. The Open Space and Recreation Plan reflects the goal of making additional purchases, especially in areas of Town without current open space to retain open areas, or to create access to other parcels, including connections to the Charles River. The purchase of parcels adjacent to current open space is also a high priority. Some parcels may require improvements which would be submitted as separate capital improvement projects. Under the current CPA legislation, parcels purchased with CPA funds are eligible for improvement funds from CPA. The CPA indicates how the value of the property is determined.

The Town Manager and Town Counsel would need to be involved in discussions, deliberations and negotiations.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Rosemary Recreation Complex** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Facility** Status: **Revised Request from the Prior CIP**  
 Department: **Park and Recreation** Funding Source: **Community Preservation Fund**  
 Partners: **Public Facilities-Construction; PPBC; Health and Human Services**

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$15,800,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **May increase annual operating expenses between \$25,001 and \$50,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$14,930,000	\$14,930,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$382,000	\$382,000				
Technology Hardware/Software	\$110,000	\$110,000				
Other Expenses	\$378,000	\$378,000				
<b>TOTAL</b>	<b>\$15,800,000</b>	<b>\$15,800,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Rosemary Recreation Complex**

Fiscal Year: **2018**

**Project Description and Considerations**

This project received design funds at two prior Town Meetings: FY'15 \$450,000 and FY'16 \$550,000. Both appropriations were awarded from the Community Preservation Fund.

The Project Budget Elements were determined from an April 2016 cost estimate, overseen by consultant BH+A. Construction costs include the estimate for constructing pools, building and site work, as well as the contingency. Other expenses include the fees and expenses.

The Park and Recreation Commission, PPBC, Public Facilities-Construction Department, and Park and Recreation Department underwent a year-long feasibility study of Rosemary Pool and the site in 2013. The study was conducted by Weston & Sampson, with public input throughout the process. The Park and Recreation Commission voted to replace the outdoor pool on the Rosemary site, and renovate the building to accommodate year-round use, and recreate the parking areas to accommodate more vehicles, as well as year-round use. The Park and Recreation Commission's goal is to have the site be used year-round.

In Summer 2015, BH+A was hired to design the new facility. This process included public input on the options for the site and the final design choices are currently in the permitting stages with local and state agencies. It is unknown if additional requirements made by any permitting agency will impact the project.

Rosemary Pool closed on August 26, 2016 and will not re-open. If this funding request is approved, the construction would begin in June 2017, with a goal of having a new facility for Summer 2018. If construction funds are not approved, there will be no outdoor public swimming facility. If the new facility was not built at the site, the Town would be required to remove the current structure and restore the banks on the lake, which has been estimated to cost about \$2 million.

Draining the lake for maintenance will no longer be needed with a new two pool option. The building will have bathhouse functions on the lower level. The second level will be operated separately, with a multi-purpose room for programs and office space for the Park and Recreation Department and the Health Department. The parking lot will require stormwater management improvements, create more parking opportunities than currently available, and be able to be used year-round. The entrance roadway will be resituated on the site, to decrease the slope. The portions of the facility that are related to outdoor recreation are eligible for funding consideration under the Community Preservation Act. These would include the pools, the site work and parking, and the functions of the building related to the outdoor pool. Indoor recreation opportunities are not eligible for CPA funding.

As this is written, the project is in the permitting stage with Conservation Commission and Planning Board.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Trail Improvement Project: Reservoir Trail** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: Park and Recreation Funding Source:  
 Partners: Conservation, DPW, Town Manager

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

Primary Reason for the Request: New function or service  
 How was the Estimated Project Cost Determined: Hired Consultant Estimated Project Cost: \$925,000  
 Useful Life: More than twenty-five (25) years  
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000  
 Total New FTE's: 0

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$825,000	\$825,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$40,000	\$40,000				
Technology Hardware/Software	\$0					
Other Expenses	\$60,000	\$60,000				
<b>TOTAL</b>	<b>\$925,000</b>	<b>\$925,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Trail Improvement Project: Reservoir Trail**

Fiscal Year: **2018**

**Project Description and Considerations**

This project budget is based on an August 2016 estimate from BETA. The funding source for the well closing still needs to be determined, so that portion of the project is shown as "Other." Funding options are under discussion with DPW.

Funding was received in FY2014 for the design of the Reservoir Trail project, through CPA funds, and the contract for the design was awarded in October 2014 to BETA. The project has been permitted and received an Order of Conditions from the Needham Conservation Commission under the Massachusetts Wetlands Protection Act and the Needham Wetlands Protection Bylaw. The request for an amendment to the Special Permit for the Public Services Administration Building (PSAB) has been approved by the Needham Planning Board. Two public sessions were held during the design phase, and a presentation was made to the Needham Commission on Disabilities. The input from all sessions was incorporated into the design.

This request is for the construction funds to create a handicap accessible perimeter trail, with boardwalks, around the Needham Reservoir. The development of an accessible trail around one of the Town's important amenities - the Needham Reservoir - was a key priority identified in the Town's Trails Master Plan. It is an asset to the relatively new PSAB and intended improvements to the adjacent 470 Dedham Avenue. The Eastman Conservation Trail, recently rebuilt at the Newman School, is accessible but only available outside of school hours, so the Reservoir Trail will have more hours of use, plus have closer parking. The Reservoir Trail will also include assistance for visually impaired, and provide an accessible fishing dock.

The two decommissioned water supply wells are located within the trail area. The existing fence and concrete will be removed, the areas excavated and regraded.

In 1890, the Town of Needham acquired the property including and surrounding the Needham Reservoir for water supply purposes. Groundwater extraction wells operated on the property until the 1940's and the reservoir was decommissioned as a water supply source in 1995. The property is under the jurisdiction of the Board of Selectmen. Prior to the building of PSAB, the trail had minimal use, but with more open access, it has become a popular location for fishing and walking. The dirt road, in place to access the wells is eroding in places and impassable during wet conditions. The southerly section has inconsistent routes, partially due to wet areas, creating damage to the wetland resource areas. Public education will be added throughout the trail related to the history of the reservoir and the natural environment within which it exists.

The constructed trail will require regular maintenance, some of which can be handled through the Trails Steward program, with volunteers, or in some cases with the Parks and Forestry Division. These maintenance activities might require increases in the annual budget of the Division.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Boat Launch on Charles River** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Informational Only Details Incomplete**  
 Department: Park and Recreation Funding Source: Community Preservation Fund  
 Partners: Conservation Department, Town Manager

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

Primary Reason for the Request: Obsolete/non-functioning  
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost:  
 Useful Life: Between eighteen (18) and twenty-five (25) years  
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000  
 Total New FTE's: 0

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

\$0

**Capital Project Request**

Project Title: **Boat Launch on Charles River**

Fiscal Year: **2019**

**Project Description and Considerations**

The Town of Needham is adjacent to a major state resource - the Charles River. It creates about 2/3rds of the Town's border, with the City of Newton, the City of Boston, the Town of Dedham, and the Town of Dover, our neighbors on the other side of the river.

CPC funds of \$30,000 have been awarded to design an improved boat launch into the Charles River on Town-owned property on South Street, near the intersection of Dedham Avenue, but we have not started the formal design process as this is written. One of the on-call engineer firms will be chosen to work with Park and Recreation/Conservation departments on this project. There is an existing unimproved launch for canoes and kayaks, with a circular driveway and parking for 10-12 vehicles. There is pedestrian access, only, to the river.

The intention is to keep the launch in its natural setting, but create a more consistent access on a pervious path, and possibly creating the ability for vehicles to back up to the launch area with their boats.

At a minimum, permits would be required from the Needham Conservation Commission.

A project estimate can be provided once the designer is able to provide options and the Town chooses a scope of work.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Rosemary Lake Camp Property and Trail** Fiscal Year: **2019**  
 Purpose: **Design/Engineering** Classification: **Facility** Status: **Revised Request from the Prior CIP**  
 Department: **Park and Recreation** Funding Source: **Community Preservation Fund**  
 Partners: **Conservation Department**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$250,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$250,000	\$250,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$250,000</b>	<b>\$250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Rosemary Lake Camp Property and Trail**

Fiscal Year: **2019**

**Project Description and Considerations**

Two former CIP requests are being combined together into one request...the Rosemary Trail project and the Rosemary Camp Property buildings. This project is still under review for scope.

The Rosemary Trail project was initially developed within the Trails Master Plan and is the fourth of four major trail projects to be moved forward. The original scope and estimates was developed in 2008 by Beals+Thomas, and they updated the estimate in subsequent years. The scope has been altered to meet the current plans of the property. The entrance to the trail from the Rosemary parking lot will be repaired during the Rosemary Recreation Complex project. It is recommended that projects along the trail be combined into a group of projects for the Student Conservation Association, including rebuilding a bridge crossing the brook. The final project would involve improvements on the cart path to alleviate wet conditions, particularly when an emergency vehicle needs to access the property. The trail will not be ADA accessible.

The Rosemary Camp Property building project was holding a place in the event the summer program location at Ridge Hill was no longer available for use. Since that time, the Rosemary Recreation Complex project has moved forward and will have an indoor location for use by the summer program. Due to the on-going vandalism, it is now recommended that the shelter building and two latrines be demolished. In place of the shelter, an open air picnic shelter would be built, with picnic tables installed on the concrete base to minimize vandalism. This area would be available for use by trail walkers as well as any programs offered by Park and Recreation or other Needham organizations. Past vandalism has included use of flammable materials, a danger to nearby homes.

Permits would be required from the Conservation Commission for the trail work, and demolition permits would be required, as well as for the installation of a pre-fab shelter for the picnic area.

On-going maintenance can primarily be done by volunteers, with minor assistance from DPW Parks and Forestry.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Cricket Field Building Renovation** Fiscal Year: **2020**  
 Purpose: **Design/Engineering** Classification: **Building** Status: **Revised Request from the Prior CIP**  
 Department: **Park and Recreation** Funding Source: **General Fund**  
 Partners: **PPBC; Public Facilities-Construction; DPW**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$772,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$154,000	\$154,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$618,000		\$618,000			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$772,000</b>	<b>\$154,000</b>	<b>\$618,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Cricket Field Building Renovation**

Fiscal Year: **2020**

**Project Description and Considerations**

Park and Recreation completed a feasibility study of the Cricket Field building with PPBC in March 2012. The study looked at (1) renovation of the building for current uses; (2) renovation of the building for year-round use; (3) construction of new building at same location; (4) construction of new building elsewhere on site. For the renovation options, code upgrades, including ADA, are included. Extensive work on the grounds is also required for accessibility. "Option 1 Modified" is used for the request, which is an update of the current layout for seasonal use only and a septic field. Option 1, without modifications, or a new modular building would be more than \$100,000 of additional costs. The design costs would also include a survey that is required for a building permit. The original estimate was created in 2012, with a 10% contingency. It is recommended to escalate the estimate by 5% annually, or review if a significant period of time passes. The numbers in this request have therefore been increased from the original estimate. The design/engineering costs were based on 20% of total project estimate.

The building is currently used for (a) Park and Recreation summer program; (b) Needham High Girls Soccer and Girls Lacrosse; (c) storage for Park and Recreation programs; and (d) storage for DPW Parks and Forestry. It is hoped that the building could be utilized for these purposes, and that public restrooms for those using the playgrounds or athletic fields would be available. The chosen option would also create an accessible building, and site work would add appropriate accessible parking. Approval of a new septic system as opposed to a sewer system would help reduce the cost of construction. The 1964 wood structure building is approximately 1,250 square feet. Without renovations, it will become more difficult to use it for the summer program, which would also be a loss of revenue of approximately \$30,000 as it isn't likely another site in Town would be available to accommodate the program. Donations have been made for other projects at the park, totaling about \$200,000. Those projects include the rebuilding of the athletic fields, addition of new playground equipment, and a bubbler and garden with park benches.

Any portion of the project related to outdoor recreation would be eligible for CPA funding, but indoor recreation is not eligible. Permits would be required from the Needham Health Department and the Planning Board. The costs do not include any unanticipated requirements of the permits. At some point, without renovation, the building will not be available for use by Park and Recreation for its summer program or by Needham High School Athletics. The loss of the summer program location would lead to a loss in revenue. Costs to use Cricket Field would increase for Needham High Athletics.

Currently, the building's restrooms are only used by Park and Recreation's summer program, as well as the Needham High teams. No other park user has access to the restrooms, so creating restrooms that are available to the park will increase the cost for cleaning by an outside firm.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Public Playgrounds** Fiscal Year: **2020**  
 Purpose: **Acquisition** Classification: **Equipment/Furniture** Status: **Same Request from the Prior CIP**  
 Department: **Park and Recreation** Funding Source: **Community Preservation Fund**  
 Partners: **School Department**

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

Primary Reason for the Request: **Public/employee health or safety**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$600,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **The project should reduce the operating expenses**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$600,000	\$600,000				
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$600,000</b>	<b>\$600,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Public Playgrounds**

Fiscal Year: **2020**

Project Description and Considerations

The Town of Needham has 19 public playground locations: Broadmeadow (2), Eliot (2), Hillside (2), Mitchell (1), Newman (3), Claxton, Cricket, DeFazio, Greene's, Mills, Perry, Riverside, Rosemary Pool, and Walker-Gordon.

Hillside and Mitchell have the oldest school-site playgrounds. The new school replacing Hillside will have new playground equipment installed as part of the project. Mitchell's equipment will be maintained until such time that the school is renovated or rebuilt. The Rosemary Pool equipment will be removed during construction and not replaced at this time.

Broadmeadow's Grade 1-5 and Kindergarten playgrounds were installed in 2002 and will likely need upgrades in upcoming years. Eliot's two playgrounds were installed in 2004 and appear to be in excellent condition. Newman's Grade 1-5 and Kindergarten playgrounds were installed in 2012 and are in excellent condition. The Preschool playground received a poured-in-place surface in 2013. Its equipment was originally purchased in 1998 and moved to the Newman site in 2004. It is in good condition, but will need some refreshing. An improvement recommended for Broadmeadow and Eliot would be the installation of poured-in-place pathways. Though the current wood fiber surfacing is considered ADA compliant, the MA Architectural Board may be creating a new ruling that will require other options for pathways. The addition of poured-in-place pathways reduces the wear and tear on the wood fiber surfacing, requiring less material to be installed a few times a year.

For the non-school playgrounds, all sites are in very good to excellent condition. Greene's Field's equipment was installed new in 2013, with a major donation from residents of over \$180,000. The Exchange Club has "adopted" DeFazio and Claxton, adding improvements over several years. Parent Talk has "adopted" Cricket, Perry and Mills, with new playgrounds installed between 2001-2007. Riverside received new equipment in 2007 as part of the nearby Charles River Landing project. Walker-Gordon was replaced in 2013 as part of the park reconstruction project. Cricket will have ADA improvements completed when the park building is renovated.

The school projects will require consultation with the School Department, insuring their educational goals are met with any new structures.

The estimate was made in-house, based on recent projects completed in Needham and informal discussions with playground and surfacing companies.

**Capital Project Request**

Project Title: **Public Playgrounds**

Fiscal Year: **2020**

Supplemental Information

<b>PLAYGROUND</b>	<b>TYPE OF STRUCTURE</b>	<b>YEAR</b>	<b>ESTIMATED COST OF EQUIPMENT AT INSTALLATION</b>	<b>NOTES</b>
Broadmeadow	Metal and plastic	2002	\$80,000	Fair/Good condition; company not responsive on repairs
Broadmeadow-Kindergarten	Metal and plastic	2002	<i>With above</i>	Fair/Good condition
Claxton	Metal and plastic	1994 2007	\$10,000 \$18,000	Excellent condition
Cricket	Metal and plastic	2005	\$40,000	Excellent condition
DeFazio	Metal and plastic; one wood house	1997-1999	\$23,000	Excellent condition; some older pieces from earlier renovations in good condition
Eliot	Metal and plastic	2004	\$80,000	Excellent condition
Eliot-Kindergarten	Metal and plastic	2004	<i>With above</i>	Excellent condition
Greene's	Metal and plastic	2013	\$280,000	Excellent condition
Hillside	Metal and plastic	1995 2011	\$40,000 \$30,000	Very Good condition
Hillside-Kindergarten	Metal and plastic; coated wood	2001	\$12,000	Good condition

Town of Needham  
 Capital Improvement Plan  
 January 2017

**Capital Project Request**

Project Title: **Public Playgrounds**

Fiscal Year: **2020**

Mills	Metal and plastic	2007	\$40,000	Excellent condition
Mitchell	Metal and plastic	1998	\$40,000	Good condition
Newman	Metal and plastic	2012	\$275,000	Excellent condition
Newman-Kindergarten	Metal and plastic	2012	(included in above cost)	Excellent condition
Newman-Preschool	Metal and plastic	1998-2004	\$25,000	Good condition
Rebecca Perry	Metal and plastic; wooden house	2001	\$40,000	Excellent condition
Riverside	Metal and plastic	2007	\$40,000	Excellent condition
Rosemary Pool	Metal and plastic	2006	\$8,000	Good condition
Walker-Gordon	Metal and plastic	2012	\$15,000	Excellent condition

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Athletic Fields Master Plan** Fiscal Year: **2021**  
 Purpose: **Long Range Plan/Study** Classification: **Land** Status: **Same Request from the Prior CIP**  
 Department: **Park and Recreation** Funding Source: **Community Preservation Fund**  
 Partners: **DPW Parks and Forestry Division**

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$75,000**  
 Useful Life: **More than five (5) years but less than eight (8) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2021	2022	2023	2024	2025
Planning/Feasibility	\$75,000	\$75,000				
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$75,000</b>	<b>\$75,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Athletic Fields Master Plan**

Fiscal Year: **2021**

**Project Description and Considerations**

The Park and Recreation Commission has been working with user groups to determine how athletic fields are being used and how best to schedule the athletic fields to provide optimal use without jeopardizing the maintenance plan. The organizations and the Commission need to do some additional work together before the scope of a master plan can be created.

Renovations have occurred at several parks, and some school sites will be improved in upcoming years. The study would help the Commission determine whether new athletic fields are needed to accommodate the need and provide feasibility studies on possible locations for new athletic fields.

The ability for the Town to maintain current athletic facilities, along with any possible new facilities, would be included within the study.

This project may appropriate to submit for a warrant article as opposed to a capital request.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Improvements to Memorial Park Building and Grounds** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Building** Status: **Informational Only Details Incomplete**  
 Department: **Memorial Park** Funding Source: **General Fund**  
 Partners: **Board of Selectmen, Park and Recreation Commission, and Town Departments**

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$5,900,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **May increase annual operating expenses between \$25,001 and \$50,000**  
 Total New FTE's: **0.25**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$500,000					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$5,000,000					
Construction Management	\$100,000					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$200,000					
Technology Hardware/Software	\$25,000					
Other Expenses	\$75,000					
<b>TOTAL</b>	<b>\$5,900,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Improvements to Memorial Park Building and Grounds**

Fiscal Year: **2018**

**Project Description and Considerations**

This is a general submission which may be followed with additional information from the Trustees of Memorial Park, project partners, and Town staff.

The Memorial Park Building was included in the Townwide Facilities Study planning update completed in 2014. The study presumed a complete renovation of the current Memorial Park Building, which would make the building fully handicap accessible, and would be designed and constructed in accordance with the new building code. The facility would be part of an overall plan that enhances programs and promotes synergy among the other nearby Town facilities. The building would be seen as a service point for High School athletics and other community activities, while keeping the focus on the site and its history. The estimated project cost is \$5.9 million (2014). Depending on the actual design and amount of activity that would be generated at the new facility an increase in operating expenses is to be expected. However, it is still too early in the process to calculate an estimate of those costs.

A recent facility financing plan summary assumed that the project would be funded by a combination of General Fund debt (\$2-million), CPA funds, other one-time General Fund monies, and some limited outside resources, yet to be determined. The feasibility study for this project was funded at the 2016 Annual Town Meeting, and is under the charge of the PPBC.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **RTS Property Improvements** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Facility** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - RTS** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$523,100**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$513,100	\$290,000	\$103,100			\$120,000
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$10,000		\$10,000			
<b>TOTAL</b>	<b>\$523,100</b>	<b>\$290,000</b>	<b>\$113,100</b>	<b>\$0</b>	<b>\$0</b>	<b>\$120,000</b>

\$0

**Capital Project Request**

Project Title: **RTS Property Improvements**

Fiscal Year: **2018**

Project Description and Considerations

This article will be used to fund improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve the facility function.

FY 18

Materials to organize the Materials Processing Area and Composting Area

The RTS receives and stores various construction materials both generated from Town projects and paying customers at its Materials Processing Area (MPA). In 2014 it was determined that the MPA was in need of better organization due to the inflow of various materials and its proximity to wetlands. Much of the material stored on site has become commingled and difficult to separate, resulting in materials that are difficult to reuse or market. Given that the Materials Processing Area is now accepting additional aggregate material and will be conducting an annual rock crushing operation, an opportunity exists to develop this area to better store, categorize and utilize materials in a manner that is conducive to limiting or negating adverse impacts to the adjacent wetlands. To bring better organization to the Materials Processing Area and ensure the operations do not adversely impact the wetlands, the RTS will need to purchase approximately 10,000 square feet of block face made up of interlocking precast concrete blocks that will delivered and installed at the site in accordance with an engineering plan to create 10 material storage bins with dimensions of 25' wide x 30' deep x 10' tall.

The funding for FY 2018 has increased from the prior year's submission after the department solicited a revised quote this year.

If the seasonal storage is moved to the Mateials Processing Area, the blocks are modular and can be disassembled and reassembled at a different location.

FY19

This is for the purchase and installation of 300 jersey barriers that will be used to create a barrier between the composting operation and the wetlands. This needs to be done in order for the Town to be compliant with the Negative Determination of Applicability from the Conservation Commission in 2014. The cost referenced is for the purchase of new jersey barriers and transportation. It is possible that the Town may be able to procure used jersey barriers at little or no cost but that will require the Town pay the cost of transportation, which is approximately \$10,000.

FY22

This is for the purchase and installation of two 18' x 10' panels to extend the existing scale which is 40 feet and insufficient to take the accurate weight of the Town's 100 yard open top containers and contractor's larger vehicles. Right now, the Town uses approximate values for these materials but the extended scale will accurately determine the weights of the materials being shipping out of or dropped off at the RTS. Additionally, the current scale is 9 years old as of 2016 and it requires annual maintenance due to excessive wear.

**Capital Project Request**

Project Title: **RTS Property Improvements**

Fiscal Year: **2018**

Supplemental Information

Future Projects

The Recycling and Transfer Station has grown organically over the years and currently includes seven separate buildings:

- Transfer station building with customer reception area has been abandoned and is currently being used as storage due to lack of ADA compliance, insufficient barrier to the transfer station, deteriorated bathroom facility and areas with mold.
- A new office trailer that is temporary in nature has been installed in front of the transfer station building. This is a temporary solution.
- 3-Bay garage used for surplus paint and equipment storage and Re-use-it area
- Employee break trailer with storage and restroom are not ADA compliant
- REX building garage with Superintendent office and restroom are not ADA compliant. It is not properly insulated or heated.
- Surplus paint reuse shed and hazardous waste locker
- 40 foot trailer for storage
- 12 foot trailer for storage

Some of the limitations of the current facility include:

- Superintendent's office is isolated from the day-to-day operations and staff activity, making supervision and oversight challenging
- No shower facilities on site for staff working in extremely dirty environment
- Limited secure storage for valuable inventory such as PAYT trash bags
- Employee lunch/break room is in donated second-hand trailer located in isolated area of facility

Looking to the future, in order to improve efficiency and oversight of operations, provide adequate working conditions, and provide secure storage, new quarters at the RTS are desperately needed. The new area would combine the functions of five separate storage buildings into one facility attached to the existing transfer station building. The new facility would include: customer service area, staff office, superintendent office, employee lunch/break room, meeting room, restroom, shower facilities, and secure storage area all in a single facility. The new facility would most likely be a three-story addition to the existing transfer station building consisting of secure storage and shower/locker room on the ground level, customer reception and office area on the first floor, and meeting room and employee break room on the second floor. A May 2014 Annual Town Meeting Warrant approved funding for a temporary office trailer to provide adequate customer service, office, and restroom facilities and to bring the superintendent's office into the main operations area. This trailer is intended to be temporary and will be situated so as not to interfere with potential transfer station expansion.

4. This project may have to go to the Planning Board for Site Plan Review and may be subject to Conservation Commission permitting requirements.
16. The scale is a below ground device and will permanently be installed at the RTS.
18. The Conservation Department will be required to provide assistance in order to complete the project.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Transfer Station Floor Replacement** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **New Request**  
 Department: **Public Works - RTS** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$166,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$166,000	\$166,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$166,000</b>	<b>\$166,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Transfer Station Floor Replacement**

Fiscal Year: **2018**

**Project Description and Considerations**

The Municipal Solid Waste (MSW) transfer building was built in 1998. The concrete floor has not been replaced since it was constructed and it is in very poor condition. The current condition is the result of heavy equipment operating across the surface each working day since the building was constructed, which has slowly eroded the concrete and exposed rebar in many places. The protruding rebar is a safety hazard to both staff and residents dropping off trash on the MSW tip floor, as it could impale someone. Furthermore, the ruts in the concrete floor are a tripping hazard to both RTS staff and those in the building unloading trucks or personal vehicles.

Due to the existing poor condition of the concrete floor, it is recommended that the entire MSW tip floor be completely replaced. This will require the floor to be jackhammered, the existing rebar removed and the ground surface prepared for new rebar and concrete. The dimensions of the MSW transfer building floor are 40 feet by 56 feet, eight inches (approximately 2,260 square feet). The longer this project is delayed, the more dangerous the conditions will become. The floor was targeted for repair several years ago, however it was never replaced. It is past the point where the floor can be ground and coated with a layer of concrete.

It is important to note that the poor condition of the MSW tip floor is not the result of the failure of several of the roof purlins that occurred in the spring of 2016.

4. This project will require permitting by the Building Department.

15. The building is almost 20 years old and the concrete floor is well past its designed lifespan. Full replacement at this stage is necessary.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **RTS Horizontal Grinder (Tracked)** Fiscal Year: **2019**  
 Purpose: **Acquisition** Classification: **Heavy Equipment** Status: **Informational Only Details Incomplete**  
 Department: **Public Works - RTS** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$819,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$819,000	\$819,000				
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$819,000</b>	<b>\$819,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **RTS Horizontal Grinder (Tracked)**

Fiscal Year: **2019**

**Project Description and Considerations**

The RTS has had in its inventory a Vermeer horizontal grinder for more than 10 years. This grinder is unsafe, does not operate consistently and is slated to be disposed of given its condition.

To provide the staff with the necessary equipment to ensure seamless operations at the compost operation, a new tracked (not wheeled) horizontal grinder is necessary. The grinder will provide the staff the means to control the inflow of brush, limbs and logs which will provide for considerably more square footage by negating the need to store huge amounts of the aforementioned materials on site which take up lots of necessary space at the present time. Having a new grinder will allow these materials to be processed at least weekly, freeing up valuable space for the layout of more windrows. The new grinder will play a significant role in both the efficiency of increased productivity of operation.

The new grinder will also provide the necessary equipment in the event of a catastrophic wind or storm event. Should (or when) such an event occur in town, having a horizontal grinder on site that is sized to handle both the day to day operations of the compost area AND provide the processing power to handle copious amounts of local construction demolition from a catastrophic storm is prudent planning and will provide the Town flexibility to deal with this debris in a timely fashion.

The grinder will assist in the more efficient layout of the RTS' composting site. Having the grinder on site will allow for better control of incoming brush, limbs and logs and keep open and clear valuable square footage that can be used for the layout of additional compost windrows.

6 & 9. The costs to service the grinder are presently not in the budget.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **RTS Stormwater Plan** Fiscal Year: **2019**  
 Purpose: **Construction/Renovation** Classification: **Facility** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - RTS** Funding Source: **Enterprise Fund**  
 Partners: **Conservation Commission**

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

Primary Reason for the Request: **Legal/regulatory requirement**  
 How was the Estimated Project Cost Determined: **Hired Consultant** Estimated Project Cost: **\$138,600**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$138,600	\$138,600				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$138,600</b>	<b>\$138,600</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
\$0						

**Capital Project Request**

Project Title: **RTS Stormwater Plan**

Fiscal Year: **2019**

**Project Description and Considerations**

The Recycling and Transfer Station (RTS) composting operation is presently under a July 2014 Conservation Commission Negative Determination of Applicability (NDA). This NDA was put in place due as a result of adverse impacts to the wetlands from the compost operations. The NDA calls for the mitigation of potential stormwater issues at the site. At the present time, untreated stormwater runoff is entering a perennial stream that feeds the wetlands abutting the composting operations.

At the May 2016 Annual Town Meeting, funding was approved for the design phase of this project and budgetary numbers for the construction phase of this project will not be available for the FY 2018 Capital process. The funding for FY 2019 has increased from the prior year's submission because this request was pushed out a year.

In order to be compliant with the NDA this project will fund the following scope, including but not limited to:

- The construction of a sediment removal structure at the compost area
- A new detention basin at the base of the landfill that will control stormwater runoff from the Materials Processing Area and the road behind the Salt Shed
- The regrading of the materials processing area; this regrading will require all stormwater runoff to be shifted away from the wetlands
- The stormwater management collection system for the proposed paving of the road behind the Salt Shed;
- The drainage adjacent to the salt shed, and pending investigation determine a solution, and design if appropriate

4. This project will have to go to the Planning Board for Site Plan Review and will be subject to Conservation Commission permitting requirements.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Drain System Improvements - Water Quality (EPA)** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Drains** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Legal/regulatory requirement**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$3,768,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$118,000		\$118,000			
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$3,650,000	\$2,400,000		\$250,000	\$1,000,000	
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$3,768,000</b>	<b>\$2,400,000</b>	<b>\$118,000</b>	<b>\$250,000</b>	<b>\$1,000,000</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Drain System Improvements - Water Quality (EPA)**

Fiscal Year:

**2018**

**Project Description and Considerations**

The Town entered into a Memorandum of Understanding (MOU) with the Environmental Protection Agency (EPA) to commence a Town-wide investigation of stormwater discharge to address the discharge of pollutants through stormwater into the Charles River Basin and other water bodies. Incorporated into this plan are improvements to the Stormwater Drainage System to upgrade the quality of the water discharged into the Charles River in Needham. This request is to support action items identified in the MOU.

When the 2003 EPA National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit took effect, it incorporated several requirements identified in the MOU. There were a number of projects proposed to manage stormwater quality effectively. The second permit to be issued by the EPA was submitted in April 2016 and will take effect July 1, 2017. This request for funding increased from the previous year because during the design process, it was determined that the depth of the sediment that needs to be removed is greater than what was originally determined. This has increased the cubic yardage of sediment product that needs to be disposed.

FY18 - Rosemary Lake Sediment Removal - Construction \$2,400,000

FY19 - The Town Reservoir Sediment Removal - Design/Engineering \$118,000

FY20 - Action Items from Watershed Management Plan funded in FY15 Items TBD - Design and Construction \$250,000

FY21 - The Town Reservoir Sediment Removal - Construction \$1,000,000

4. Conservation Commission, State and Federal permitting may be required for dredging.

12. Yes, this a project for which an Initial Eligibility Project Application may be filed with the Community Preservation Committee.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Sewer Pump Station Improvements/Replacement** Fiscal Year: **2018**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Sewer** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$4,935,500**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$531,000	\$91,000		\$95,000	\$345,000	
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$4,404,500	\$499,000		\$535,000		\$3,370,500
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$4,935,500</b>	<b>\$590,000</b>	<b>\$0</b>	<b>\$630,000</b>	<b>\$345,000</b>	<b>\$3,370,500</b>

\$0

**Capital Project Request**

Project Title: **Sewer Pump Station Improvements/Replacement**

Fiscal Year:

**2018**

**Project Description and Considerations**

As part of the Wastewater System Master Plan, several of the wastewater pumping stations were evaluated to assess their physical condition and capacity, and to evaluate current and future flow projections. The Master Plan recommended that at least 7 of the 9 stations be upgraded.

Canister pump stations at Lake Drive, Cooks Bridge (Milo Circle), and Alden Rd are each either at or beyond their design life. Constant maintenance and emergency shutoffs occur more frequently and require greater amounts of personnel time and emergency funds to keep running.

Alden Road Pump Station was originally constructed in the mid-1950's as a pneumatic ejection station, and converted in the 1970's to a built in place wet well/dry well type station with vertical flooded suction sewage pumps. There are no alarms with the exception of a local red light alarm for high wet well level. The pump's outdated electrical control panels are located below grade level adjacent to the pumps, which if flooded, poses a severe threat to personnel as well as equipment. The station has heat, but no dehumidifier or ventilation. Problems have also occurred with roots and rags clogging pumps.

FY 18 Alden Rd - Design/Engineering and Construction \$590,000

FY19 No Funding Requested \$0

FY20 Lake Dr - Design/Engineering and Construction \$630,000

FY21 Cooks Bridge - Design/Engineering \$345,000

FY22 Cooks Bridge - Construction \$3,370,500

4. Conservation Commission permitting may be required for site work.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Sewer Main Extensions in Zone I and II** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Same Request from the Prior CIP**  
 Department: **Public Works - Sewer** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Public/employee health or safety**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$510,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$510,000	\$510,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$510,000</b>	<b>\$510,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Sewer Main Extensions in Zone I and II**

Fiscal Year: **2019**

**Project Description and Considerations**

There are eight homes in Needham that need to be prioritized for sewer service connection because they are within Massachusetts Department of Environmental Protection's (MassDEP) Zone II areas. These homes are being looked at as part of a future sewer main extension/service connections project.

The Zone I and Zone II aquifer protection area for the Charles River Well No. 1 encompasses an area that includes private septic systems. Zone I, as defined by MassDEP includes land within the protective four hundred (400) foot radius around an existing or potential public water supply well or well field. Zone II includes the area of an aquifer that, given the most severe pumping and recharge conditions that can be realistically anticipated, would potentially be affected by nearby septic systems. It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. (Note: these private systems predate the Zone I and II requirements by MassDEP and Needham Zoning Bylaws, Section 3.4.6 (b)).

All three of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems. Extending the sewer main will enable access to homes within Zones I & II and reduce the risk of contamination.

The sewer main ends at 827 Charles River St., the sewer main extension would run from 828 Charles River St. to Winding River Rd. and extend 712 feet up Winding River Rd. The new sewer main will pick up 5 homes that are on septic, 4 of which are on Winding River Rd. These improvements would be subject to a betterment fee. This may also include the installation of an additional prefabricated sewer pump station for these locations.

Monies requested are based on 712 linear feet of 8" gravity sewer pipe installation at a cost of \$200 per linear foot, which includes the installation of five sewer manholes; the cost estimate for this station based on other similar projects is \$350,000; and design and engineering costs of 15% of total project. It is feasible that another option for this project exists in which gravity sewer may be run through easements, which may result in an overall decrease in the cost of this project.

FY19 Construction \$510,000

Additional operating budget funds will be required after this project is constructed in order to operate the new main which include electrical and maintenance costs of the pumps, mechanicals seals, valves, wet cleanings, and other maintenance costs. These costs are not anticipated to exceed \$1,000 in 2015 dollars.

4. Conservation Commission permitting may be required for site work; Board of Health permitting for septic system abandonment.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Sewer Main Replacement** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Sewer** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$600,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$100,000	\$100,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$500,000		\$500,000			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$600,000</b>	<b>\$100,000</b>	<b>\$500,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Sewer Main Replacement**

Fiscal Year: **2019**

**Project Description and Considerations**

The Town of Needham completed its Facilities Master Plan in 2015. This plan and the subsequent DPW Feasibility Study has identified Parcel 74 on Greendale Ave. as a viable option for transition space and limited storage facility. In order to facilitate the construction of a building on this property, a new or relined sewer line will be necessary. Additionally, the existing sewer line has been determined to be in the process of deteriorating and in need of replacement.

This request is for replacing or relining 1,209 feet of 18 inch reinforced concrete pipe gravity sewer main running through Town property in the right of way from Greendale Ave. near Cheney St. towards Route 128. This is the total length of pipe that runs through the right of way to the first manhole on Rt. 128.

4. MWRA permitting may be required for repair work.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Sewer Service Connections** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Sewer** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$200,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$200,000	\$50,000	\$50,000	\$50,000	\$50,000	
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Sewer Service Connections**

Fiscal Year: **2019**

**Project Description and Considerations**

There are 108 homes with access to sewer that are not connected to the Town Sewer System because they have chosen not to. The purpose of this request is to provide the lateral sewer line from the sewer main to the property line so that homeowners can connect should they choose to or should their septic system fail. The lateral sewer line is to be added prior (at least one year) to a road reconstruction/paving project. The cost for these service installations are typically not included in road construction estimates. In the case of Chapter 90 Projects, these are not considered as a reimbursement eligible expense. These expenses are included in local road reconstruction estimates. There is a corresponding request for water service connections.

There was no funding request for FY 2017 so the division can re-evaluate the intention of this article. The funding for this article was initially requested for the installation of sewer lateral lines in roads that were anticipated to be renovated in the near future, so should the homeowner choose to convert to Town sewer, the lateral would be available.

The reality has been that when homeowners have decided to go onto Town sewer it has been when their house has been sold, and with the high number of tear downs, the location of the sewer laterals the Town has installed are no longer beneficial for the new house's layout.

Past projects

2013 - installed 14 new sewer laterals (408.5' of pipe)

2014 - no appropriation was requested

2015 - installed sewer laterals as part of the Great Plain Ave sewer replacement

2016 - installed sewer laterals as part of the Great Plain Ave sewer replacement

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Sewer System Inflow & Infiltration Removal** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Informational Only Details Incomplete**  
 Department: **Public Works - Sewer** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$2,000,000**  
 Useful Life:  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$2,000,000	\$500,000	\$500,000	\$500,000	\$500,000	
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$2,000,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$500,000</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Sewer System Inflow & Infiltration Removal**

Fiscal Year: **2019**

**Project Description and Considerations**

In 2016, the Town completed a study that identified areas of inflow and infiltration removal in areas around town over the next ten years. This study was delayed due to low ground water that made I/I harder to detect. The Town has been undertaking I/I projects using funding from developments. In future years, funding from private developments will be appropriated at Town Meeting.

The Town of Needham, along with numerous other communities, is under Administrative Orders from the Department of Environmental Protection (DEP) to identify and remove Infiltration and Inflow (I/I) in existing sewer systems.

Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures that need to be repaired.

Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. The inflow removal program is being presented separately from the infiltration removal program. Much of this work could address inflow to include extending or expanding the storm drain system to accept groundwater from household sump pumps. Needham's most significant problem is believed to be from these private sources. The program will initiate with an education and information campaign to inform and prepare the homeowners as to the nature of the problem. The cost impacts to the community, the legal implications, the likely solutions, the responsibilities of the homeowner, and the potential enforcement actions by the Town, the Massachusetts Water Resource Authority (MWRA), the DEP and the Environmental Protection Agency (EPA) will need to be communicated. The preliminary engineering will likely take the form of smoke testing and flooded dye testing to determine any direct or indirect interconnections between the sewer and the storm drain system. It also includes a door-to-door investigation of households to determine where violations are occurring. Typical violations include, but are not limited to, sump pumps or open clean-outs where non-sanitary flow is discharging directly to the sewer system as well as foundation drains, yard drains, roof leaders and other cross connections.

**Cost Benefits of Program:**

- Failure to do any mitigation in any of the MWRA communities will cause the overall costs for all participating communities to increase.
- The failure of the Town of Needham to address its I/I while neighboring communities reduce theirs will increase the percentage of the cost to Needham.
- When Needham decreases its I/I the same or better than other participating communities its percentage of cost will stay the same or decrease.
- The Town must keep up with its I/I mitigation in order to avoid disproportionate increases in cost and to comply with MassDEP's administrative order.

**Future Projects:**

Subarea	Total Pipe Length (feet)	Total Inspection Length (feet)	Inspection Length with Infiltration (feet)	Observed Infiltration (gpd)	Observed Infiltration Remaining (gpd)	Construction Cost to Remove Observed Infiltration	\$/gal
15	32,068	3,760	1,519	41,940	41,940	\$ 28,575.00	\$ 0.68
12	27,673	4,177	1,061	38,232	38,232	\$ 34,200.00	\$ 0.89
13	21,108	3,116	863	10,440	10,440	\$ 14,800.00	\$ 1.42
30	8,925	898	114	360	360	\$ 550.00	\$ 1.53
29	5,033	1,188	492	7,920	7,920	\$ 17,050.00	\$ 2.15
26	34,183	2,445	811	14,220	14,220	\$ 31,475.00	\$ 2.21
28	4,829	563	91	2,880	2,880	\$ 6,700.00	\$ 2.33
21	54,696	12,008	5,270	56,520	56,520	\$ 139,116.75	\$ 2.46
3	3,340	1,219	627	10,440	10,440	\$ 27,550.00	\$ 2.64
22	69,844	19,912	5,214	73,620	73,620	\$ 220,962.00	\$ 3.00

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Water Distribution System Improvements** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

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

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

Estimated Project Cost: **\$6,813,750**

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

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

Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$593,500	\$460,000	\$36,500		\$97,000	
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$6,220,250	\$801,750		\$4,975,000		\$443,500
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$6,813,750</b>	<b>\$1,261,750</b>	<b>\$36,500</b>	<b>\$4,975,000</b>	<b>\$97,000</b>	<b>\$443,500</b>

\$0

**Capital Project Request**

Project Title: **Water Distribution System Improvements**

Fiscal Year: **2018**

Project Description and Considerations

The Town is combining all Water Distribution System Improvements into one article for simplicity. All requests made under this article will be to make improvements to the distribution system for water.

**Water System Rehabilitation**

Under the Water System Rehabilitation Program, the Town's water infrastructure is continually analyzed to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement, and portions of the Town's water infrastructure are 75+ years old and approaching the end of their useful life. A diligent rehabilitation program encompassing maintenance, repair, and replacement ensures a continual supply of water to the public. The Department of Public Works prioritizes replacement of water pipes based upon pipe condition, water break history, and adequacy of water flow to fire hydrants.

Country Way may require a permit from the Conservation Commission.

FY18

Alfreton Rd./Highland Ave to Webster St. (145 unlined) – Construction

Bennington St./High St. to Concord St. (unlined) – Construction

\$399,750

Country Way/ Replace (1,200 lf) of 8" main (unlined) -Construction

\$402,000

FY19

Thorpe Rd./Webster St. to End New 8" (330lf) - Eng. & Design

Mills Rd./ Sachem Rd. to Davenport Ave. New 8" (500lf) - Eng. & Design

Mayo Ave. Harris Ave. to Great Plain Ave. New 8" (1060lf) - Eng. & Design

\$36,500

FY20

Thorpe Rd./ Mills Rd./ Mayo Ave. (unlined) -Construction

Mills Rd./ Sachem Rd. to Davenport Ave. New 8" (500lf) -Construction

Mayo Ave. Harris Ave. to Great Plain Ave. New 8" (1060lf) (unlined) -Construction

\$375,000

FY21

Kingsbury St. / Oakland Ave. to Webster St. 8" (1,500lf) - Eng. & Design

Oakland Ave. / May St. to Highland Ave. 8" (1,100lf) - Eng. & Design

\$97,000

**Capital Project Request**

Project Title: **Water Distribution System Improvements**

Fiscal Year: **2018**

Supplemental Information

FY22

Kingsbury St. / Oakland Ave. to Webster St. 8" (1,500lf) - Construction  
Oakland Ave. / May St. to Highland Ave. 8" (1,1,00lf) (unlined) - Construction  
\$443,500

**Water Main Replacement**

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

In 2008, the 14" water main was relined from the Charles River Water Treatment Facility to Grove Street. In 2010, the second phase of this project replaced the 14" water main with a new 16" water main extending from Grove Street to Central Avenue.

The current project will be replacing a 14" water main with a new 16" water main. This project includes replacing the pipe and reconstructing the road.

FY 2018

Funding is proposed for the design of the remaining 11,500 linear feet of water main to be replaced from the intersection of Pine St. to Marked Tree Rd. to Oak St., and Maple St.

Engineering and Design: \$460,000

FY 2020

Funding is proposed for the construction of the remaining water main.

Construction: \$4,600,000

The cost has increased from last years submission because the Engineering division has reviewed current construction and engineering costs and has determined that the original amount submitted is insufficient to complete the project as specified. The cost is \$400/linear foot of pipe with a 20% contingency in FY 2016 dollars. This cost was determined based on recent bids. The engineering is estimated to be 10% of the cost, which is lower than our normal engineering estimate percentage due to the simplicity of the project.

State Revolving Fund Funding may be available for this project and the Public Works Department will submit an application.

**Future Projects:**

Fenton Rd./West St. to Pershing Rd. - Engineering & Design  
Greenough St./Pine Grove St. to Avery St. - Engineering & Design  
Pine Grove St., Hillside Ave. to exiting 8" - Engineering & Design  
Tower Ave./Greendale Ave. to Lexington Ave. 800 lf of 12" - Engineering & Design  
Rosemary Pond Water Main Replacement - Engineering & Design

4. Conservation Commission permitting may be required for site work.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Water Service Connections** Fiscal Year: **2018**  
 Purpose: **Construction/Renovation** Classification: **Infrastructure** Status: **Revised Request from the Prior CIP**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Obsolete/non-functioning**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$1,000,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$1,000,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$1,000,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>
\$0						

**Capital Project Request**

Project Title: **Water Service Connections**

Fiscal Year: **2018**

**Project Description and Considerations**

The primary purpose of this program is to remove old iron pipe water services that may contain lead from the water distribution system. Old water services are to be replaced prior (at least one year) to a road reconstruction/paving project. If this project is not funded it leaves an element of the subsurface infrastructure susceptible to failure before the useful life of the reconstructed roadway has been realized. System wide, there are approximately 1,220 services that still need to be replaced in the system. Approximately 70 services should be able to be replaced with the FY18 budget request of \$200,000.

Year Number of Services Replaced

CY 2007 - 126  
CY 2008 - 170  
CY 2009 - 174  
CY 2010 - 17  
CY 2011 - 145  
CY 2012 - 102  
CY 2013 - 200  
CY 2014 - 152  
CY 2015 - 110

14. Old iron pipe water services in the water distribution system that may contain lead is a documented public health or safety condition.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Specialty Equipment** Fiscal Year: **2018**  
 Purpose: **Acquisition** Classification: **Heavy Equipment** Status: **New Request**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Scheduled replacement**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$132,000**  
 Useful Life: **Between eight (8) and twelve (12) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2018	2019	2020	2021	2022
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$132,000	\$132,000				
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$132,000</b>	<b>\$132,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
\$0						

**Capital Project Request**

Project Title: **Specialty Equipment**

Fiscal Year: **2018**

**Project Description and Considerations**

Updated quotes were obtained from a few vendors and the cost has increased from the initial submission to reflect those updated quotes.

Unit # 115 (2008)

The current excavator is used for the water/sewer/drains projects including responding to emergencies. At the time of the requested replacement, the excavator will be 10 years old. The replacement will be an upgraded version of the existing piece of equipment which will make operations more efficient as it will be able to:

- Dig deeper to replace catch basins
- Dig whole bottom length of water pipe at proper depth because of a longer reach
- Install larger precast structures and move steel road plates because of an increased lifting power

The current piece of equipment is used in the repair and replacement of water mains and services, drain manholes and drain pipe, and sewer manholes and sewer pipe. The anticipated make and model will be a Komatsu PC88MR-10 or equivalent with a 12 year lifecycle.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Birds Hill Water Tank Improvements** Fiscal Year: **2019**  
 Purpose: **Design/Engineering** Classification: **Infrastructure** Status: **Same Request from the Prior CIP**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Public/employee health or safety**  
 How was the Estimated Project Cost Determined: **Industry References** Estimated Project Cost: **\$200,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$25,000	\$25,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$175,000	\$175,000				
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Birds Hill Water Tank Improvements**

Fiscal Year: **2019**

**Project Description and Considerations**

The purpose of the water tank located at Birds Hill is to maintain proper operating system pressure of the Town's municipal water distribution system. The method used for filling the tank is through one central pipe at the bottom of the tank. This is also how the tank is drained. The movement of water is all predominately at the bottom of the tank. This tank has a 100 ft. diameter foundation and it is 45 ft. in elevation. The intention of this request is to install a mixing valve that will move water throughout the tank. This movement will assist in maintaining chlorine levels inside the tank. This will assure improved water quality.

16. The mixing valve will be permanently installed at the Birds Hill Tank.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Fire Flow Improvements Design & Construction** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Informational Only Details Incomplete**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

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

How was the Estimated Project Cost Determined:

Estimated Project Cost: **\$2,840,000**

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

Budget Impact:

Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$522,000	\$522,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$2,318,000		\$2,318,000			
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$2,840,000</b>	<b>\$522,000</b>	<b>\$2,318,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Fire Flow Improvements Design & Construction**

Fiscal Year: **2019**

**Project Description and Considerations**

The Department is requesting a feasibility study to investigate possible options to increase water pressure in the Tower Hill and Birds Hill areas. The goal is to create a high pressure zone in those two areas, potentially supplied by water booster stations. The FY19 and FY20 estimates provided are based upon a water system report and may be altered pending the completion of a feasibility study.

In 2016, the Town received funding for a feasibility study .

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Water Supply Development** Fiscal Year: **2019**  
 Purpose: **Construction** Classification: **Infrastructure** Status: **Informational Only Details Incomplete**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Operational efficiency**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$3,160,000**  
 Useful Life: **More than twenty-five (25) years**  
 Budget Impact:  
 Total New FTE's: **0**

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$460,000	\$460,000				
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$2,700,000			\$2,700,000		
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$0					
Other Expenses	\$0					
<b>TOTAL</b>	<b>\$3,160,000</b>	<b>\$460,000</b>	<b>\$0</b>	<b>\$2,700,000</b>	<b>\$0</b>	<b>\$0</b>

\$0

**Capital Project Request**

Project Title: **Water Supply Development**

Fiscal Year: **2019**

**Project Description and Considerations**

**Proposed Well #4**

This project would be to install a fourth well at the Charles River Well Field that will provide for reliability and redundancy while other wells are taken offline for routine maintenance or repair. The Well Field is presently at full capacity when all three wells are operational. This fourth well would allow the Town to continue to operate to its full capacity. Previously, when the system was at peak demand and a well was taken offline, the Town had to rely on MWRA water source to meet its daily demands. This redundant well will allow the Town to be more independent even during routine maintenance periods. A feasibility study was completed in FY 2011 that supports the development of an additional well in the Town's existing well field.

Town of Needham  
Capital Improvement Plan  
January 2017

**Capital Project Request**

Project Title: **Water Distribution Study** Fiscal Year: **2020**  
 Purpose: **Design/Engineering** Classification: **Infrastructure** Status: **Same Request from the Prior CIP**  
 Department: **Public Works - Water** Funding Source: **Enterprise Fund**  
 Partners:

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

Primary Reason for the Request: **Public/employee health or safety**  
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$200,000**  
 Useful Life: **Between eighteen (18) and twenty-five (25) years**  
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**  
 Total New FTE's: **0**

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

**Capital Project Request**

Project Title: **Water Distribution Study**

Fiscal Year: **2020**

**Project Description and Considerations**

This study will provide for an analysis of the Town's water infrastructure. This is partially driven by recommendations that were made in the current master plan that was conducted in 1998, which is coming to its completion of recommendations. Since the last time that the Town studied its water infrastructure, Needham Crossing, formally the 128 Business Park, has significantly changed with more dense development and different industries and uses.

This request is for developing a new 20 year master plan that will include the following:

- Conduct a thorough asset inventory of the system and conduct a hydraulic analysis.
- Prioritize the rehabilitation and replacement of the asset information related to condition, performance, replacement values, failure modes, probability of failure, and criticality.
- Develop a new 20 year forecast for projected growth.
- Developing an annual estimate of needed reserves and an annual budget.
- Implement the asset management plan.
- Review and revise the current asset management plan.

The purpose of this water distribution study is to evaluate the existing water distribution system and determine the following:

- Identify any deficiencies that exist and determine what repairs should be made to ensure that the system can provide the required flow and pressure.
- Using growth projections from the Town's planning and zoning maps, estimate where and when future growth will occur.
- Using these growth projections, analyze the water system and determine the capacity of the water source, storage, and distribution system.
- Once the capacity is determined, decisions can be made as to when aspects of the water system should be further developed, upsized, or replaced.