

# Lexington Public Schools

146 Maple Street ♦ Lexington, Massachusetts 02420

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## **FY 2019 – 2023 School Department Capital Improvement Projects**

### **Submitted By**

Mary Czajkowski, Ed.D.  
Superintendent



# Town of Lexington

Department: Schools

## FY 2019-2023 Department Summary of Capital Improvement Projects

<u>#</u>	<u>Priority</u>	<u>Project Name</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Total</u>
945	1	LPS Technology Capital Request	\$1,715,300	\$1,750,700	\$1,249,600	\$1,712,100	\$1,793,220	\$8,220,920
<b>Department Totals</b>			<b>\$1,715,300</b>	<b>\$1,750,700</b>	<b>\$1,249,600</b>	<b>\$1,712,100</b>	<b>\$1,793,220</b>	<b>\$8,220,920</b>

Approval by: \_\_\_\_\_  
*(Department Head Signature required)*

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# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: LPS Technology Capital Request Date: 01-Oct-14  
 Project ID Number: 945 Revision Date: 22-Nov-17  
 Submitted By: Jennifer Judkins Department: Schools Priority 1  
 First Year Submission?  Phone #: 781-861-2580 x68042 E-mail jjudkins@lexingtonma.org

## Description of Project:

### FY19 Technology Plan

1. Tech Workstations: Replacement of 400 mobile devices (ipads and chromebooks) for teachers, students and staff. Cost: \$132,000 (\$330 each). Replacement of 120 teacher laptops and new staff laptops. Cost: \$120,000 (\$1,000 each) Estimating 20% damage/replacement needs for 1:1 program.

Total Cost: \$252,000

2. 1:1 Middle School Program: Replace Ipads from one grade level with 620 Chromebooks.

Total Cost: \$204,600 (\$330 each)

3. Elementary Mobile Devices: (3) additional carts of Chromebooks for Bowman, Bridge, Estabrook, Hastings, Harrington; Cost: \$148,500 (3 carts-90 Chromebooks per designated school - \$330 each Chromebook). (1) Chromebook cart for Fiske (Media Ctr); Cost \$9,900.

(16) Computer Carts; Cost \$19,200

Total Cost: \$177,600

4. 1:1 at LHS: 1:1 device program (Chromebooks) for 2 grades (625 students @ \$330ea);

Total Cost: \$412,500

5. STEM/Computer Science: Purchase Kibo robotic kits for all elementary schools; Cost: \$21,600 (\$400/kit \* (9) kits/school); purchase Sphero robot kit for middle schools; Cost: \$6000 (4) kits with (12) robots ea at \$1500 per kit)

Total Cost: \$27,600

6. Upgrade District and Building Network Infrastructure: Upgrade infrastructure to support 1:1 program and handle increase in devices at K-8 level.

Replace: (4) 2950 End of Life switches at Harrington with 2960 X POE: Cost: \$16,000

(63) 1142 WAPS at Clarke (End of Life Per Cisco) : Cost \$80,000

(63) 1142 WAPS at Diamond (End of Life Per Cisco) : Cost: \$80,000

Add: (2) 2960 POE to Clarke: Cost \$8,000 (to handle increased wireless load)

(1) 2960X to New MDF Cabinet: Cost: \$4,000 (increase capacity in the cabinet/current switch ports maxed out)

(4) 2960 POE to Diamond: Cost: \$16,000

Wireless Project at CO: Cost: \$75,000 (to bring Enterprise level wireless access to CO

Blade for 6509: Cost: \$71,000 (make preparations for bandwidth increase from 1 GB to a minimum of 5 GB)

Total Cost: \$350,000

7. Interactive Projector/Whiteboard Units: Replace (6) projectors in each school (\$54 @ \$4000) per year. This equips buildings with either a touch activated interactive system with a new ceramic whiteboard and speakers or an interactive TV. The replacements will begin with the oldest model per school until all systems are within a 4 year window with all of the same functionality.

Cost: \$216,000

8. Server/Storage Infrastructure: Upgrade current Virtual environment to keep up with the needs of the district and online testing. Cost: \$75,000

Total FY19 Technology Cost: \$1,715,300

### FY20 Technology Plan

1. Tech Workstations: Replacement of 700 mobile devices (ipads and chromebooks) including replacement of teacher, student and staff devices. Cost: \$231,000 (\$330 each). Replacement of 150 teacher laptops and new staff laptops. Cost: \$150,000 (\$1000 each)

Estimating 20% damage/replacement needs for 1:1 program.

Total Cost: \$381,000

2. 1:1 Middle School Program: Replace Ipads from one grade level with 620 Chromebooks.

Total Cost: \$204,600 (\$330 each)

3. Elementary Mobile Devices: (2) additional carts of 30 Chromebooks in every elementary school; Cost: \$126,000 (\$350 ea); 13 computer carts (\$1,200 ea) : Cost: \$15,600

Total Cost: \$141,600



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: LPS Technology Capital Request Date: 01-Oct-14  
 Project ID Number: 945 Revision Date: 22-Nov-17  
 Submitted By: Jennifer Judkins Department: Schools Priority 1  
 First Year Submission?  Phone #: 781-861-2580 x68042 E-mail jjudkins@lexingtonma.org

4. 1:1 at LHS: :1 device program (Chromebooks ) for 2 grades (625 students @ \$330ea ) ;  
 Total Cost: \$412,500

5. STEM/Computer Science: Purchase (1 ) Google Expeditions Virtual Field Trip kits for each elementary school.  
 Total Cost: \$57,000 ( 6 ) @\$9,500 ea )

6.Upgrade District and Building Network Infrastructure:

1. Replace 130 WAPs at Harrington, Bridge, Bowman to High Capacity WAPs to handle increased Wifi connected devices. Cost: \$130,000

2.Add (2 ) 2960 x 48 port POE switches to Bridge and Bowman and (3 ) 2960 X 48 Port PO switches to Harrington to handle power requirements for new WAPS. Cost: \$28,000

Total Cost: \$158,000

7.Interactive Projector/Whiteboard Units: Replace (6 ) projectors in each school. This equips buildings with either a touch activated interactive system with a new ceramic whiteboard and speakers or an interactive TV. The replacements will begin with the oldest model per school until all systems are within a 4 year window with all of the same functionality.  
 Cost: \$216,000

8.Server/Storage Infrastructure: Replace (6 ) Cache servers for needed to support online computer-based testing at the elementary schools:  
 Cost: \$12,000; Add a second virtual server to allow for additional in-house file storage capacity as well as additional cache servers needed to support online computer-based testing at the middle and high schools. Cost: \$168,000  
 Total Cost: \$180,000

Total FY20 Technology Cost: \$1,750,700

FY21 Technology Plan

1. Tech Workstations: Replacement of 700 mobile devices (ipads and chromebooks ) including replacement of teacher, student and staff devices. Cost: \$231,000 (\$330 each ) . Replacement of 300 teacher laptops and new staff laptops. Cost: \$300,000 (\$1000 each )  
 Estimating 20% damage/replacement needs for 1:1 program.  
 Total Cost: \$531,000

2. Elementary Mobile Devices: Replace end of life Chromebooks from elementary carts (30 devices per school/\$330 ea ) : Cost: \$59,400;  
 Replace end of life Ipads for K-2 elementary schools (60 devices per elementary at \$350 ea ) ; Cost: \$126,000  
 Total Cost: \$185,400

3. 1:1 at LHS: Assume 1:1 achieved for LHS Replacement for damaged devices covered under Tech work station replacements. Total Cost: \$0.00

4.LHS Mobile Digital Music Lab: Mobile music lab will allow elective courses for non-performance track students to participate in digital music programming. Total Cost: \$45,000

5. STEM/Computer Science: Purchase (1 ) classroom Makey Makey STEM Invention Literacy Kit for each elementary school. Total Cost: \$4,200 (\$700 ea )

6.Upgrade District and Building Network Infrastructure:

1. Replace 186 WAPs at LHS: Cost: \$186,000

2.Add (9 ) POE switches to accommodate new power requirements: Cost \$36,000

3.Add (20 ) WAPs as needed (Cabling and WAP ) : Cost: \$26,000

Total Cost: \$248,000



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

**Project Name:** LPS Technology Capital Request **Date:** 01-Oct-14

**Project ID Number:** 945 **Revision Date:** 22-Nov-17

**Submitted By:** Jennifer Judkins **Department:** Schools **Priority** 1

**First Year Submission?**  **Phone #:** 781-861-2580 x68042 **E-mail** jjudkins@lexingtonma.org

7. Interactive Projector/Whiteboard Units: Replace (6) projectors in each school. This equips buildings with either a touch activated interactive system with a new ceramic whiteboard and speakers or an interactive TV. The replacements will begin with the oldest model per school until all systems are within a 4 year window with all of the same functionality.

Total Cost: \$216,000

8. Server/Storage Infrastructure: Continue to improve infrastructure to meet the needs of the district.

Total Cost: \$20,000.00

Total FY21 Technology Cost: \$1,249,600

## FY22 Technology Plan

### 1. Tech Workstations:

1. Replacement of 1:1 Chromebooks for MS/HS - 3 grades (620 students@\$330/device) : Cost: \$613,800

2. Replace end of life Chromebook carts district-wide (15 carts/28 devices@ \$330 ea) : Cost: \$138,600

3. Replacement of teacher laptops and new staff laptops (300 @ \$1000 ea) : Cost: \$300,000

4. Estimating 20% damage/replacement needs for 1:1 program (370 devices @ \$330 ea) : \$122,100

Total Cost: \$1,174,500

2. Elementary Mobile Devices: Assume a 1:1 ratio is achieved in Elementary for grades 3-5, and 2:1 in grades K-2

Cost: \$0.00

3. 1:1 at LHS: Assume 1:1 achieved for LHS. Replacement for damaged devices covered under Tech work station replacements. Cost: \$0.00

4. STEM/Computer Science: Raspberry Pi Cana Kits and accessories (1) class set for middle schools (30 kits per MS @\$110 ea)

Total Cost: \$6,600.00

5. Upgrade District and Building Network Infrastructure: Fiber and Wifi network upgrades:

Total Cost: \$300,000.00

6. Interactive Projector/Whiteboard Units: Replace (6) projectors in each school (54 x 4000) per year. At this point, we can continue the cycle of replacement or more likely than not the focus of interaction will be within the individuals system (laptop etc.) and the projection might be just a mirror of what's happening.

Total Cost: \$216,000

7. Server/Storage Infrastructure: Moving more to cloud based solutions, but will still need to maintain and upgrade existing hardware.

Total Cost: \$20,000.00

Total FY22 Technology Cost: \$1,712,100

## FY23 Technology Plan

### 1. Tech Workstations:

1. Replacement of 1:1 Chromebooks for MS/HS - 3 grades (620 students@\$330/device) : Cost: \$613,800

2. Replace end of life Chromebook carts district-wide (18 carts/28 devices@ \$330 ea) : Cost: \$166,320

3. Replacement of teacher laptops and new staff laptops (360 @ \$1000 ea) : Cost: \$360,000

4. Estimating 20% damage/replacement needs for 1:1 program (370 devices @ \$330 ea) : \$122,100

Total Cost: \$1,262,220

2. Elementary Mobile Devices: Assume a 1:1 ratio is achieved in Elementary for grades 3-5, and 2:1 in grades K-2 and or equipment is leased.



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Cost: \$0.00

3. 1:1 at LHS: Assume 1:1 achieved for LHS. Replacement for damaged devices covered under Tech work station replacements. Cost: \$0.00

4. STEM/Computer Science: Will not be purchasing under this category.

5. Upgrade District and Building Network Infrastructure: Continue 5 year replacement of Middle School Wifi network with newest technology.  
Total Cost: \$300,000

6. Interactive Projector/Whiteboard Units: Replace (6) projectors in each school (54 x 4000) per year. At this point, we can continue the cycle of replacement or more likely than not the focus of interaction will be within the individuals system (laptop etc.) and the projection might be just a mirror of what is happening.  
Total Cost: \$216,000

7. Server/Storage Infrastructure: Continue to maintain non cloud based applications.  
Total Cost: \$15,000.00

Total FY23 Technology Cost: \$1,793,220

**Justification/Benefit:**

The proposed capital expenditures will:

Increase student access to devices to allow for innovative learning methods that integrate supportive technologies, problem-based approaches and higher order thinking skills

Upgrade existing infrastructure to address current needs as well as provide flexibility to adjust to future requirements and emerging technologies

Support expanded ESE mandated MCAS next generation online testing, specifically grades 3 & 6 for spring 2019

**Impact if not completed:**

Without the proposed funding, access to devices will remain limited and as a result, the ability for our students to develop critical 21st century digital proficiencies will be compromised. This funding is key to meet the current and future needs given the increasing number of devices on the network and shift towards expanded, media-rich student and teacher uses.

**Timeframe:**

**Replace. Freq:**

0 Years

**Stakeholders:**

Students and staff

**Operating Budget Impact:**

**Cost Analysis:**

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: LPS Technology Capital Request Date: 01-Oct-14

Project ID Number: 945 Revision Date: 22-Nov-17

Submitted By: Jennifer Judkins Department: Schools Priority 1

First Year Submission?  Phone #: 781-861-2580 x68042 E-mail jjudkins@lexingtonma.org

## Capital Funding Request

945	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$1,715,300	\$1,750,700	\$1,249,600	\$1,712,100	\$1,793,220	\$8,220,920
Contingency	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$1,715,300</b>	<b>\$1,750,700</b>	<b>\$1,249,600</b>	<b>\$1,712,100</b>	<b>\$1,793,220</b>	<b>\$8,220,920</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

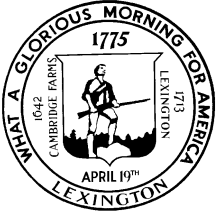
Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

.See description of capital request, based on needs/projects in each respective year.



# Lexington Public Schools

146 Maple Street ♦ Lexington, Massachusetts 02420

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**FY 2019 – 2023**

## **Department of Public Facilities Capital Improvement Projects**

**Submitted By**

Michael Cronin

Director of the Department of Public Facilities





# Town of Lexington

Department: Public Facilities

## FY 2019-2023 Department Summary of Capital Improvement Projects

#	Priority	Project Name	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
306	1	Lexington Police Station Rebuild	\$1,862,622	25,901,891	\$0	\$0	\$0	\$27,764,513
561	1	Townwide Roofing Program	\$0	\$0	\$2,010,152	\$200,934	\$5,626,693	\$7,837,779
562	1	School Building Envelopes and Systems Program	\$227,755	\$233,448	\$239,285	\$245,199	\$251,400	\$1,197,087
647	1	Municipal Building Envelopes and Systems	\$198,893	\$203,205	\$208,285	\$213,492	\$218,829	\$1,042,704
653	1	Building Flooring Program	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$625,000
698	1	School Paving Program	\$236,890	\$261,740	\$0	\$0	\$0	\$498,630
749	1	Public Facilities Bid Documents	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
835	1	Visitors Center	\$200,000	\$4,178,000	\$0	\$0	\$0	\$4,378,000
939	1	Public Facilities Mechanical/Electrical System Repl	\$544,500	\$605,000	\$672,000	\$728,000	\$788,500	\$3,338,000
989	1	LHS Security Evaluation and Upgrade	\$338,600	\$0	\$0	\$0	\$0	\$338,600
1044	0	Lexington High School Feasibility	\$0	\$1,825,000	\$0	\$0	\$0	\$1,825,000
1047	0	Playground Replacement Program Bowman-Bridg	\$302,000	\$302,000	\$0	\$0	\$0	\$604,000
1050	0	LHS Short Term Capacity	\$0	\$0	\$0	\$0	\$0	\$0
1057	0	SMR High Definition broadcasting upgrade	\$44,800	\$0	\$0	\$0	\$0	\$44,800
1059	0	Public Service Building Vehicle Storage Area - Flo	\$157,000	\$0	\$0	\$0	\$0	\$157,000
<b>Department Totals</b>			<b>\$4,338,060</b>	<b>\$33,735,284</b>	<b>\$3,354,722</b>	<b>\$1,612,625</b>	<b>\$7,110,422</b>	<b>\$50,151,113</b>

Approval by: \_\_\_\_\_  
 (Department Head Signature required)

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# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: Townwide Roofing Program Date: 29-Oct-08

Project ID Number: 561 Revision Date: 22-Nov-17

Submitted By: Shawn Newell Department: Public Facilities Priority: 1

First Year Submission?  Phone #: 781-274-8960 E-mail snewell@ci.lexington.ma.us

### Description of Project:

The Department of Public Facilities maintains a 20 year Roof Master Plan. A priority for FY2021 is replacing portions of the roofing system as it has reach its useful life cycle per the present plan. As part of the master plan Bridge Elementary schools roof has been moved and will part of the FY21 capital plan with possible MSBA funding of approximately 27-30%. The priority for replacement of LHS Main Building and LHS Field House roofs have been moved to 2023 which may align itself with the a capital replacement plan for LHS.

### Justification/Benefit:

This CIP should be used FY2021 for Bridge Elementary roof (MSBA) . Hastings and Fire Station Head Quarters have been removed from the roofing plan as new building will be constructed. Lexington Police Station and Lexington High School have been moved forward do to possible major construction projects changing the five year plan considerably.

### Impact if not completed:

Water infiltration and ice dams will continue to damage furnishings, property, and building components. Potential for indoor air quality issues will continue to be at a higher risk. DPF is looking to replace these roof due to signs of leakage as a solution to ongoing repair issue and possible water infiltration issues moving forward.

### Timeframe:

### Replace. Freq:

20 Years

### Stakeholders:

Students, Teachers, Public, Administrators

### Operating Budget Impact:

Approximately \$50,000 is budgeted for emergency leak repairs. Replacement of the roofing systems could result in reducing this expenditure, as well as reducing time custodians clean up and administrative time to insurance claims from these water leaks. With large snow accumulations, failure to repair this ongoing issue will result in additional insurance claims and building productivity.

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

561	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$0	\$0	\$167,512	\$16,744	\$468,891	\$653,147
Construction	\$0	\$0	\$1,675,128	\$167,446	\$4,688,911	\$6,531,485
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$167,512	\$16,744	\$468,891	\$653,147
<b>Totals</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,010,152</b>	<b>\$200,934</b>	<b>\$5,626,693</b>	<b>\$7,837,779</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

Roof Master Plan report produced by Russo-Barr Associates, building envelope consultant, identifies construction costs, escalated at 4%. Design/Engineer cost is 10% of construction cost. Contingency is 10% of total Design/Engineer + Construction cost.



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: School Building Envelopes and Systems Program Date: 29-Oct-08

Project ID Number: 562 Revision Date: 22-Nov-17

Submitted By: Shawn Newell Department: Public Facilities Priority: 1

First Year Submission?  Phone #: 781-274-8960 E-mail: snewell@exingtonma.gov

### Description of Project:

This project is requesting funds to perform annual prioritized extraordinary repairs and modifications to school buildings and systems. FY2019 request will be used to continue building envelope repairs. The FY2019 Appropriation will be applied to address repairs of water infiltration issues of the gaskets, caulking, window lentils and translucent skylights that are delaminating over the front façade of the main entrance. Other area of concern will be looked at and if there is any warranty work that would be covered for this project at Harrington Elementary School. The Department of Public Facilities moving forward will provide a detailed assessment of conditions, life cycle and priorities at school sites.

### Justification/Benefit:

To properly maintain the buildings operated by the School Department will require continual investment in the building envelope and systems. This includes repairs to siding, caulking, weather proofing materials, windows, doors and painting of wood exteriors on an as needed basis. (approximately seven years) .

### Impact if not completed:

Without continual maintenance the building exterior will continue to deteriorate, allowing more moisture to become entrapped in the envelope and propagate cracks through the freeze thaw cycle. The building occupants will experience more discomfort created my air and water infiltration.

### Timeframe:

System wide annually, on a priority basis to each school building

### Replace. Freq:

0 Years

### Stakeholders:

School users, public.

### Operating Budget Impact:

Operating budget will continue to fund small, individual items such as failure of a specific door or window or small painting projects.

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

562	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$20,705	\$21,222	\$21,753	\$22,229	\$22,855	\$108,764
Construction	\$207,050	\$212,226	\$217,532	\$222,970	\$228,545	\$1,088,323
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$227,755</b>	<b>\$233,448</b>	<b>\$239,285</b>	<b>\$245,199</b>	<b>\$251,400</b>	<b>\$1,197,087</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

Budget estimated, to perform priority projects on a yearly basis. Continuation of building envelope at 2.5% annual increase.



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: Building Flooring Program Date: 18-Oct-09  
 Project ID Number: 653 Revision Date: 22-Nov-17  
 Submitted By: Shawn Newell Department: Public Facilities Priority: 1  
 First Year Submission?  Phone #: 781-274-8960 E-mail: snewell@ci.lexington.ma.us

### Description of Project:

This is an Annual Program that was initiated in FY2011 to replace flooring systems to maintain clean and safe spaces. A FY2019 appropriation would be used for continuing replacements at Cary Memorial Library's reading rooms. FY17  
 Projects: Fiske Library, Fiske Main Office, Fiske Cafeteria  
 FY18 Projects: Transformative Spaces- Cary Library, LHS Nurse Area - LHS, ILP Offices and Faculty Area - Harrington Elementary.  
 FY19 Projects: Diamond and Clarke Middle School Libraries and Cary Library.

### Justification/Benefit:

Flooring systems must be replaced periodically to insure the surfaces are safe and cleanable. Broken and failed systems can become tripping hazards and/or harborage areas for bacteria and water.

### Impact if not completed:

Without adequate funding for replacement, flooring systems will potentially develop into unsafe conditions and become tripping hazards and difficult to clean.

### Timeframe:

Annual

### Replace. Freq:

15 Years

### Stakeholders:

Building users, employees, and community.

### Operating Budget Impact:

None

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

653	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$625,000
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$125,000</b>	<b>\$125,000</b>	<b>\$125,000</b>	<b>\$125,000</b>	<b>\$125,000</b>	<b>\$625,000</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

Flooring contract is bid for square foot pricing to maximize use of funds.



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: School Paving Program Date: 14-Oct-10

Project ID Number: 698 Revision Date: 22-Nov-17

Submitted By: Shawn Newell Department: Public Facilities Priority: 1

First Year Submission?  Phone #: 781 274 8960 E-mail snewell@lexingtonma.gov

### Description of Project:

This program funding is to replace in kind on school grounds of parking lots, bus loops and side walks on an as needed basis. Currently, Harrington Elementary School is in need of spot replacement due to it current condition. Walking conditions have caused safety issues for pedestrians on route to the school. The FY2019 request will be dedicated to this priority for the summer of 2019. This program is for "as needed" replacement of sidewalks, bus loop and parking areas on school grounds. This plan includes FY2019 Harrington Elementary School FY2020 Fiske Elementary School. Lexington High School has been excluded from this plan.

### Justification/Benefit:

Extraordinary repairs for school paving areas are necessary to maintain parking and pedestrian surfaces in a condition suitable for public safety and Safe Routes to Schools. This capital request would address pedestrian, bicycle and driver safety to the school grounds.

### Impact if not completed:

Additional paving replacements are required at school buildings to deteriorated surfaces with severe cracking. If this program is not funded, these conditions will continue.

### Timeframe:

5 year annual request with 2 years remaining.

### Replace. Freq:

2 Years

### Stakeholders:

Community, students, parents, staff

### Operating Budget Impact:

This would reduce impact to the operating budget due to repair cost from contracted services.

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

698	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$20,000	\$22,000	\$0	\$0	\$0	\$42,000
Construction	\$202,500	\$225,000	\$0	\$0	\$0	\$427,500
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$14,390	\$14,740	\$0	\$0	\$0	\$29,130
<b>Totals</b>	<b>\$236,890</b>	<b>\$261,740</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$498,630</b>
<b>CPA Amt. Req.</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

Past Operational Repair Projects and budget proposals



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: Public Facilities Bid Documents Date: 17-Sep-11  
 Project ID Number: 749 Revision Date: 11-Oct-17  
 Submitted By: Mike Cronin Department: Public Facilities Priority: 1  
 First Year Submission?  Phone #: 781-274-8958 E-mail: mcronin@lexingtonma.gov

### Description of Project:

This project appropriates a fund for professional services to produce design development, construction documents, and/or bid administration services for projects. Eligible projects would be projects seeking authorization at the Annual Town Meeting that have a high probability of approval and the intended schedule would be unattainable if the project design process could not begin until after the close of Annual Town Meeting.

### Justification/Benefit:

Public Facilities manages projects for school buildings with very short construction windows due to the academic calendar. With the Annual Town Meeting closing in late April or early May, there is insufficient time to obtain professional services for bid documents, complete the bidding process, and implement the project before school is back in session. With this available fund, projects that have a high probability of approval at Town Meeting can be developed with sufficient time to implement them in the same calendar year as Town Meeting.

### Impact if not completed:

Impact if not completed is to delay implementation of projects for 12 months or use available operating dollars to supplement capital projects.

### Timeframe:

### Replace. Freq:

1 Years

### Stakeholders:

Public Facilities and project stakeholders

### Operating Budget Impact:

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

749	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$500,000</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

For FY2017 this funding was increased to \$100,000 as \$75,000 was insufficient in FY2015.



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: Public Facilities Mechanical/Electrical System Replacements Date: 15-Sep-14  
 Project ID Number: 939 Revision Date: 16-Oct-17  
 Submitted By: Shawn Newell Department: Public Facilities Priority: 1  
 First Year Submission?  Phone #: 781-274-8960 E-mail snewell@lexingtonma.gov

### Description of Project:

This project is an annual replacement of HVAC and electrical systems that have exceeded their useful life and require replacement before excessive failures begin occurring. The priority for the FY2019 Appropriation would be for replacement of HVAC systems that provide cooling and heating to Selectmen Meeting Room and the Main Server Room in the Town Office Building.  
 FY2017 Town Office Building MUA Replacements  
 FY2018 Harrington/Fiske Geothermal wells - Cary Library Chiller Replacement  
 FY2019 Town Office Building - Continuation of TOB MAU project to include Selectmen Meeting Room/IT Server Room Replacement

### Justification/Benefit:

The existing mechanical system is taxed due to the occupancy and use of the current space. The mechanical systems for this space have exceeded the life cycle and should be replaced. If a failure occurs it would severely impact Town Offices ability to conduct public meetings during the height of cooling season.

### Impact if not completed:

Without the replacement of the these systems, we would risk an interruption in service to the general public. The cost of replacement is increased if not done in the off season. Main Server Room and Selectmen Meeting room will have unreliable control and mechanical systems for building occupants during work and meetings. If this system is not replaced the potential for unplanned interruptions will increase and the equipment deferred maintenance expense will increase.

### Timeframe:

The project would take place after the cooling season in FY19, typically around November in 2018.

### Replace. Freq:

15 Years

### Stakeholders:

General Public, Public Meetings and Occupants of the building

### Operating Budget Impact:

If we continue to use operating dollars to repair the Mechanical systems it reduces the opportunity to utilize these funds for other purposes.

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

939	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$45,000	\$50,000	\$55,000	\$55,000	\$60,000	\$265,000
Construction	\$70,000	\$80,000	\$90,000	\$95,000	\$100,000	\$435,000
Equipment	\$380,000	\$420,000	\$465,000	\$510,000	\$555,000	\$2,330,000
Contingency	\$49,500	\$55,000	\$62,000	\$68,000	\$73,500	\$308,000
<b>Totals</b>	<b>\$544,500</b>	<b>\$605,000</b>	<b>\$672,000</b>	<b>\$728,000</b>	<b>\$788,500</b>	<b>\$3,338,000</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

DPF estimates



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: LHS Security Evaluation and Upgrade Date: 05-Oct-15  
 Project ID Number: 989 Revision Date: 13-Nov-17  
 Submitted By: Shawn Newell/Andrew Stephens Department: Public Facilities Priority: 1  
 First Year Submission?  Phone #: 781-274-8960 E-mail snewell@lexingtonma.com

### Description of Project:

At the 2016 Annual Town Meeting, funds were appropriated for a security study at Lexington High School. From the recommendations of the study, funds were appropriated at the 2017 Annual Town Meeting for the upgrade and expansion of the Closed Circuit Television (CCTV) system. Over the summer of 2017 the CCTV upgrade was completed.

In the spring of 2017, The School Department contracted with TBA Architects and JENSEN-HUGHES to complete a holistic Security Assessment which included recommendations to further enhance security. The assessment was based on developing concentric layers of security for deterrence and prevent. Aside from LHS, all school buildings are equipped with at least four layers of security; Classroom, CCTV, Building Perimeter/Door Security, and Visitor Management. This has become the district standard for security.

To date, LHS classroom security and CCTV systems are on par with the district standard. However, another step remains to be completely in line with the other school buildings; building perimeter/exterior door security and visitor management. The LHS School Security Working Group has reviewed the recommendations and have agreed that door security and building perimeter upgrades should be implemented.

The \$31,000 request at the Special Town Meeting 2017-3 is for design and engineering funds for alternative 2 which would enhance building perimeter security based on the recommendations from the security assessment. The designers will be tasked with the objective of enhancing school security while maintaining the open-campus culture. Cost and the potential for future new construction/renovation will be heavily taken into consideration in the security design.

The primary focus will be bringing the building perimeter and exterior doors up to the district standard.

The proposed project would enable exterior doors to lock automatically should it be necessary. Currently, only eight of the forty-eight exterior doors on the Lexington High School campus are equipped with electronic door access controls. Presently, if the building is required to be locked down, staff must manually lock exterior doors.

The proposed project would also incorporate the addition of signage and wayfinding around campus as well as considering changes to parking lot access during school hours.

### Justification/Benefit:

The addition of the electronic door access will enable exterior doors to lock instantaneously if needed. The added infrastructure would allow for procedures to be put in place to set schedules for locking and unlocking doors, providing a more secure campus and eliminate the requirement for staff to manually lock doors.

Lexington High School has multiple exterior doors and is positioned in an isolated location.

An adequate security system would safeguard school system assets including equipment, building infrastructure, and occupants.

The Lexington High School is the only school building remaining that has not added a comprehensive electronic door security system. With no firm plan for replacement in the next few years, these security enhancements are essential.

### Impact if not completed:

- The existing security concerns remain unaddressed.
- Doors cannot be locked in an efficient and timely manner if necessitated.
- The current level of security at Lexington High School does not match district standards, if completed the security level would be closer aligned to district standards (with the exception of Visitor Management) .

### Timeframe:

FY2019

### Replace. Freq:

2 Years

### Stakeholders:

School Community, School Committee, Lexington Taxpayers

### Operating Budget Impact:

Reduction in loss, theft, vandalism

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other





# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: LHS Security Evaluation and Upgrade Date: 05-Oct-15

Project ID Number: 989 Revision Date: 13-Nov-17

Submitted By: Shawn Newell/Andrew Stephens Department: Public Facilities Priority: 1

First Year Submission?  Phone #: 781-274-8960 E-mail: snewell@lexingtonma.com

## Capital Funding Request

989	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$8,600	\$0	\$0	\$0	\$0	\$8,600
Construction	\$300,000	\$0	\$0	\$0	\$0	\$300,000
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$30,000	\$0	\$0	\$0	\$0	\$30,000
<b>Totals</b>	<b>\$338,600</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$338,600</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

This project has had a Construction Cost Estimate completed by an A&E firm. The Design and Engineering fees were based on the Construction Cost Estimate. The Construction Cost is based on the Construction Cost Estimate.



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: Lexington High School Feasibility Date: 08-Nov-16  
 Project ID Number: 1044 Revision Date: 02-Jan-18  
 Submitted By: Mike Cronin Department: Public Facilities Priority: 0  
 First Year Submission?  Phone #: 7812748958 E-mail: mcronin@lexingtonma.gov

### Description of Project:

Lexington High School was renovated in 2000 to a capacity of 1,842 students. In 2014 and 2015, pre-fabricated buildings were added to the campus, increasing the number of classrooms. The January 28, 2015 Symmes Maini & McKee Associates (SMMA) Lexington Public Schools Master Plan Report identified the "classroom" capacity of Lexington High School to be 2,270 students, though also identifying that core areas would still be overcrowded. This existing capacity was projected to provide sufficient classroom space for the next five years. From the SMMA Master Plan, a School Building Project Consensus Plan was developed that identified adding capacity to the middle schools, elementary schools, and pre-kindergarten, as the priorities over the next five years. School Committee anticipates that at the conclusion of the current Hastings Elementary project, in approximately 2020, that a Statement of Interest (SOI) would be submitted to the Massachusetts School Building Authority in FY19 (MSBA) to evaluate the Lexington High School for insufficient educational capacity and system upgrades. Should the MSBA select the Lexington SOI, funding would be required for the Feasibility Study.

### Justification/Benefit:

Enrollment at Lexington High School as of October 1, 2017 was 2,185 students. The latest five year forecast is 2465 +/- 115 students for the October 2021 enrollment

### Impact if not completed:

Lexington High School (LHS) enrollments are projected to increase over the next five years. A project to address overcrowding at LHS, as well as increase core capacities and replace systems that have operated beyond their useful life will be required to maintain class sizes, continue to offer the variety of courses, and to prevent system failures.

### Timeframe:

Project study in 2020, with construction 2022 through 2025.

### Replace. Freq:

0 Years

### Stakeholders:

Lexington community

### Operating Budget Impact:

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

1044	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$0	\$1,825,000	\$0	\$0	\$0	\$1,825,000
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$0</b>	<b>\$1,825,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,825,000</b>
<b>CPA Amt. Req.</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

#### CPA Purpose

- Open Space
- Recreation
- Historic
- Housing

### Basis of Cost Projection:



## *Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects*

**Project Name:** Lexington High School Feasibility **Date:** 08-Nov-16  
**Project ID Number:** 1044 **Revision Date:** 02-Jan-18  
**Submitted By:** Mike Cronin **Department:** Public Facilities **Priority** 0  
**First Year Submission?**  **Phone #:** 7812748958 **E-mail** mcronin@lexingtonma.gov

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# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: Playground Replacement Program Bowman-Bridge Date: 15-Aug-17  
 Project ID Number: 1047 Revision Date: 31-Oct-17  
 Submitted By: Shawn Newell Department: Public Facilities Priority: 0  
 First Year Submission?  Phone #: 781-274-8960 E-mail snewell@lexingtonma.gov

### Description of Project:

The Department of Public Facilities request \$302,000 in FY2019 to update and replace the playground equipment and surfacing behind the Bowman Elementary School and playfields. The proposed playground improvements will renovate and rehabilitate existing safety surfacing and equipment so that the site will be in compliance with the Consumer Product Safety Commission (CPSC), American Society for Testing and Materials (ASTM) and the American with Disabilities Act (ADA).  
 The priority for FY19 would be for the Bowman Elementary School.  
 The priority for FY20 would be for the Bridge Elementary School.

### Justification/Benefit:

The existing playground needs to be brought into compliance of the current standards. The current playground is now in obsolescence on parts and materials. For safety it is recommended that all structures be removed and replaced with a new up to date system.

### Impact if not completed:

The current playground equipment, use zones and surfacing need to comply with CPSC, ASTM and ADA standards. As the equipment continues to age and deteriorate, more frequent repairs, maintenance and equipment removal will be needed to ensure that the users are safe. This is not cost effective method of maintaining a play structure for the community.

### Timeframe:

summer 2018

### Replace. Freq:

0 Years

### Stakeholders:

students, residents, general public

### Operating Budget Impact:

Cost of repairs are rising for this playground system. Current parts are now obsolete.

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

1047	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$15,000	\$15,000	\$0	\$0	\$0	\$30,000
Construction	\$120,000	\$120,000	\$0	\$0	\$0	\$240,000
Equipment	\$140,000	\$140,000	\$0	\$0	\$0	\$280,000
Contingency	\$27,000	\$27,000	\$0	\$0	\$0	\$54,000
<b>Totals</b>	<b>\$302,000</b>	<b>\$302,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$604,000</b>
CPA Amt. Req.	\$0	\$0	\$0	\$0	\$0	\$0

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input checked="" type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

The cost projection is based on similar projects. Project cost proposal due by 9/5/17.



# Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects

Project Name: LHS Short Term Capacity Date: 23-Aug-17  
 Project ID Number: 1050 Revision Date: 11-Oct-17  
 Submitted By: Mike Cronin Department: Public Facilities Priority: 0  
 First Year Submission?  Phone #: 781 274 8958 E-mail: mcronin@lexingtonma.gov

### Description of Project:

Lexington High School enrollment is forecast to be 2,465 students, +/- 115, for FY 2022. The School Committee supports submitting a Statement of Interest to the Massachusetts School Building Authority for a major project to increase student capacity within the next couple of years, but a project will not be implemented with capacity growth beyond the current capacity of approximately 2,270 students for classroom space. Currently options to provide short term capacity are being evaluated, including changes to the school class scheduling process and the length of the school day. This project is requesting design and construction dollars should the best option be determined to add modular classrooms on the campus during the summer and fall of 2018.

### Justification/Benefit:

The construction of pre-fabricated modular buildings in 2014 and 2015 increased capacity to 2,270 students and was expected to provide needed capacity about five years. Enrollments continue to increase and current projections reach 2,465 students for the 2021/2022 school year. With a major project to add capacity at LHS uncertain at this time, an option to provide capacity with used and available modular classrooms may provide the most cost effective option. The school will continue to remain overcrowded in core areas, but seats for curriculum classes would be provided.

### Impact if not completed:

If the additional capacity is not provided, and the number of students in each class are increased, this can negatively impact the education of the students and overcrowd small classrooms.

### Timeframe:

Potential need for the 2019/2020 school year.

### Replace. Freq:

0 Years

### Stakeholders:

Students, staff, and community.

### Operating Budget Impact:

### Cost Analysis:

Funding Source:  Levy  CPA  Revolving  State Aid  Water  Sewer  Recreation  Private  Other

### Capital Funding Request

1050	2019	2020	2021	2022	2023	Totals
Site Acquisition	\$0	\$0	\$0	\$0	\$0	\$0
Design/Engineer	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Contingency	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>CPA Amt. Req.</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Recurring Cost

\$0.00

Maintenance Cycle

0 Years

CPA Purpose
<input type="radio"/> Open Space
<input type="radio"/> Recreation
<input type="radio"/> Historic
<input type="radio"/> Housing

### Basis of Cost Projection:

TBA working with LHS and DPF. Costs will not be known until late December.



## *Town of Lexington - FY 2019-FY 2023 Capital Improvement Projects*

**Project Name:** LHS Short Term Capacity **Date:** 23-Aug-17  
**Project ID Number:** 1050 **Revision Date:** 11-Oct-17  
**Submitted By:** Mike Cronin **Department:** Public Facilities **Priority** 0  
**First Year Submission?**  **Phone #:** 781 274 8958 **E-mail** mcronin@lexingtonma.gov

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