



Paul Cuffee Charter School totals 122,350 square feet and consists of the school type(s) detailed below. School(s) were visited three times during the Statewide Facilities Assessment by teams of specialists from April-July 2016. This report provides LEA summary findings for the statewide assessment program.

### School Type by Count



School Type	SqFt
Elementary School	38,550
Middle School	34,000
High School	49,800
<b>Total:</b>	<b>122,350</b>

### Demographics

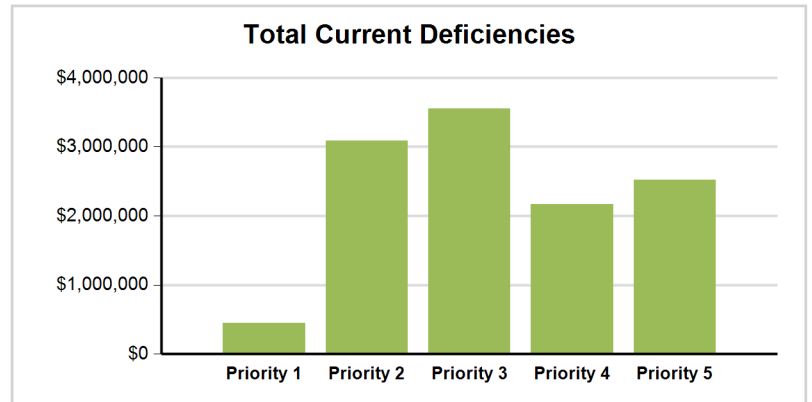
Enrollment is projected to increase by 40.2% over the next 10 years in Charter Schools. The total LEA enrollment at 3 school(s) is 786 students with a total capacity of 746 as reported by the LEA. Utilization is calculated by dividing enrollment by capacity, resulting in 105.4% utilization at Paul Cuffee Charter School.

### 105.4 % Utilization



### Educational Program Space Analysis

In Paul Cuffee Charter School there are 63 instructional spaces; of these spaces 15.9% meet or exceed the space size standards. Of the total current deficiencies identified, \$2,262,396 are related to the educational program space assessment. Addressing these identified deficiencies will improve the learning environment and bring the school(s) in the district closer to 21st century learning facilities.



### Five Year Need Summary

The current deficiencies total \$11,782,395, with 30.1% categorized as Priority 3 and another 26.2% as Priority 2. The building systems with the highest current deficiency costs are Interior and Exterior.

School(s) with Greatest Need	Combined 5-Year Need
Paul Cuffee Charter School - Middle School	\$8,144,830
Paul Cuffee Charter School - Upper School	\$3,551,025
Paul Cuffee Charter School - Lower School	\$3,067,078

The projected life cycle need in Years 1 through 5 is \$2,980,539. It is anticipated that the majority of the need will occur in Year 5. School(s) with the greatest need are represented in the adjacent table and make up 100.0% of the combined 5-Year need at Paul Cuffee Charter School.

### Five Year Facility Condition Index (FCI)

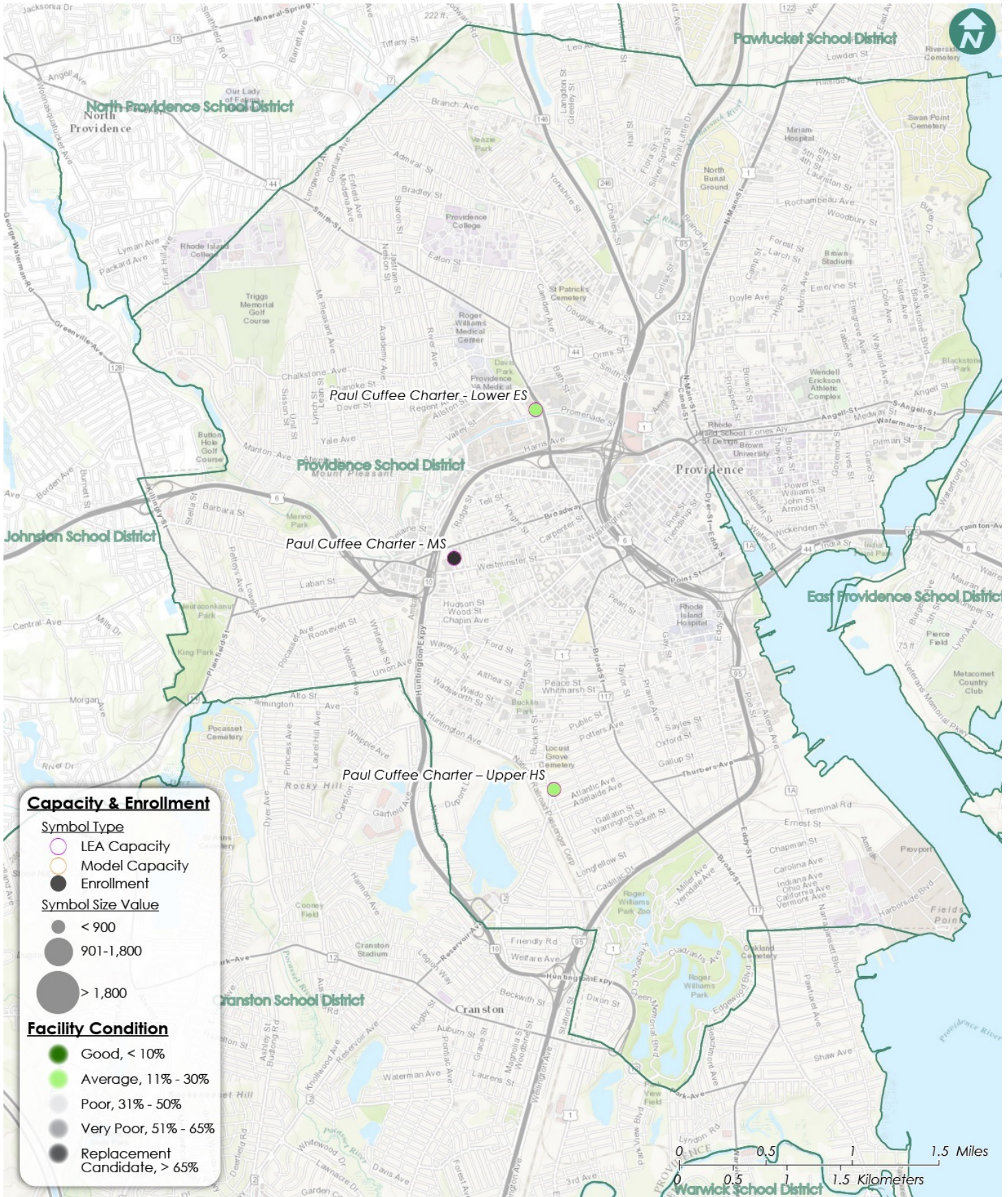
For master planning purposes, the total current deficiencies, less new construction, and the first 5 years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-Year FCI was calculated by dividing the 5-Year need by the total replacement cost. The 5-Year need is \$14,762,934 with a district replacement value of \$42,640,500. The resulting 5-Year FCI is 34.6%.

### 5-Year FCI Ranges



### LEA Summary Data

Gross SqFt	Avg Year Built	Current Deficiencies (Less New Construction)	Life Cycle Year 1-5 Total	Total 5-Year Need (Year 1-5 + Current Defs)	5-Year FCI
122,350	1946	\$11,782,395	\$2,980,539	\$14,762,934	34.6%





# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Lower School

June 2017

459 Promenade Street, Providence, RI 02908





## Introduction

Paul Cuffee Charter School - Lower School, located at 459 Promenade Street in Providence, Rhode Island, was built in 1935. It comprises 38,550 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Paul Cuffee Charter School - Lower School serves grades KG - 5, has 28 instructional spaces, and has an enrollment of 337. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Paul Cuffee Charter School - Lower School is 324 with a resulting utilization of 104%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Paul Cuffee Charter School - Lower School the 5-year need is \$3,067,078. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

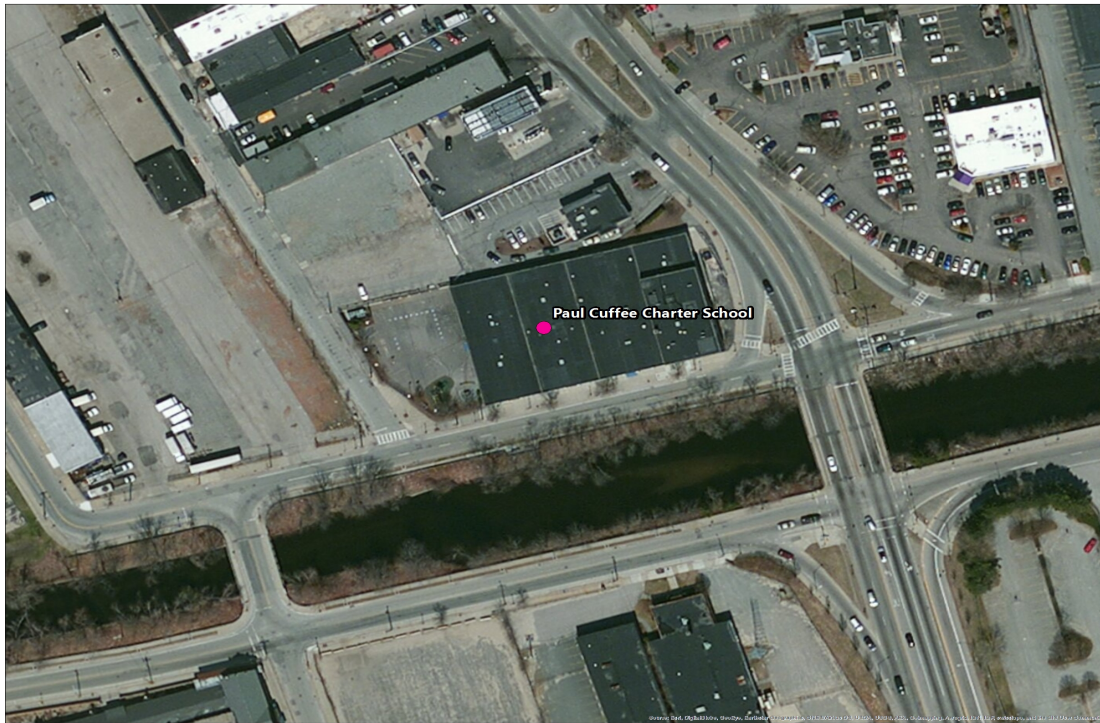


Figure 1: Aerial view of Paul Cuffee Charter School - Lower School



## Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

**Current Deficiencies:** Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

**Life Cycle Forecast:** Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

## Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

**Facility Condition Assessment:** Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

**Technology:** Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

**Hazardous Materials:** Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

**Traffic:** A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

**Acoustics:** Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

**Educational Program Space Assessment:** Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.



## System Summaries

The following tables summarize major building systems at the Paul Cuffee Charter School - Lower School campus, identified by discipline and building.

### Site

The site level systems for this campus include:

<b>Site</b>	Asphalt Parking Lot Pavement
	Wood Pedestrian Pavement

### Building Envelope

The exterior systems for the building(s) at this campus includes:

<b>01 - Main Building:</b>	Brick Exterior Wall
	CMU Exterior Wall
	Painted Exterior Wall
	Glass Block Exterior Wall
	Pre-cast Concrete Panel Exterior Wall
	Steel Exterior Windows
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Storefront Entrance Doors
	Steel Exterior Entrance Doors

The roofing for the building(s) at this campus consists of:

<b>01 - Main Building:</b>	EPDM Roofing
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### Interior

The interior systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	Steel Interior Doors
	Wood Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	FRP Wall Finish
	Interior Wall Painting
	Ceramic Tile Flooring
	Rubber Tile Flooring
	Vinyl Composition Tile Flooring
	Epoxy Coated Flooring
	Carpet



## Mechanical

The mechanical systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	1,275 MBH Cast Iron Water Boiler
	3 kW Electric Unit Heater
	20 MBH Steam Unit Heater
	DDC Heating System Controls
	130 Ton Outdoor Air Cooled Chiller
	3 Ton Fan Coil - Water Cool/Water Heat
	4-Pipe Hydronic Distribution System
	10 HP Pump
	10,000 CFM Interior AHU
	Ductwork
	Large Roof Exhaust Fan
	Small Roof Exhaust Fan
	Fire Sprinkler System

## Plumbing

The plumbing systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	4" Backflow Preventers
	Gas Piping System
	40 Gallon Gas Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Sump Pump

## Electrical

The electrical systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	225 KVA Transformer
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 277/480 225A
	800 Amp Distribution Panel
	Light Fixtures
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures



## Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

**Priority 1 – Mission Critical Concerns:** Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

**Priority 2 - Indirect Impact to Educational Mission:** Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

**Priority 3 - Short-Term Conditions:** Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

**Priority 4 - Long-Term Requirements:** Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

**Priority 5 - Enhancements:** Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.



The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

System	Priority					Total	% of Total
	1	2	3	4	5		
Site	-	-	\$2,294	\$28,674	\$5,878	\$36,846	1.98 %
Roofing	-	-	-	-	-	\$0	0.00 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	-	-	-	-	\$0	0.00 %
Interior	-	-	\$274,800	\$422,850	\$5,792	\$703,442	37.73 %
Mechanical	-	-	\$16,571	-	-	\$16,571	0.89 %
Electrical	-	-	-	-	\$53,884	\$53,884	2.89 %
Plumbing	-	-	\$1,589	\$577	\$25,155	\$27,320	1.47 %
Fire and Life Safety	-	-	-	-	-	\$0	0.00 %
Technology	-	-	\$990,242	-	-	\$990,242	53.11 %
Conveyances	-	-	-	-	-	\$0	0.00 %
Specialties	-	-	\$27,527	-	\$8,602	\$36,129	1.94 %
<b>Total</b>	\$0	\$0	\$1,313,023	\$452,100	\$99,311	\$1,864,435	

\*Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Technology	-	\$990,242
Interior	-	\$703,442
Electrical	-	\$53,884

The chart below represents the building systems and associated deficiency costs.

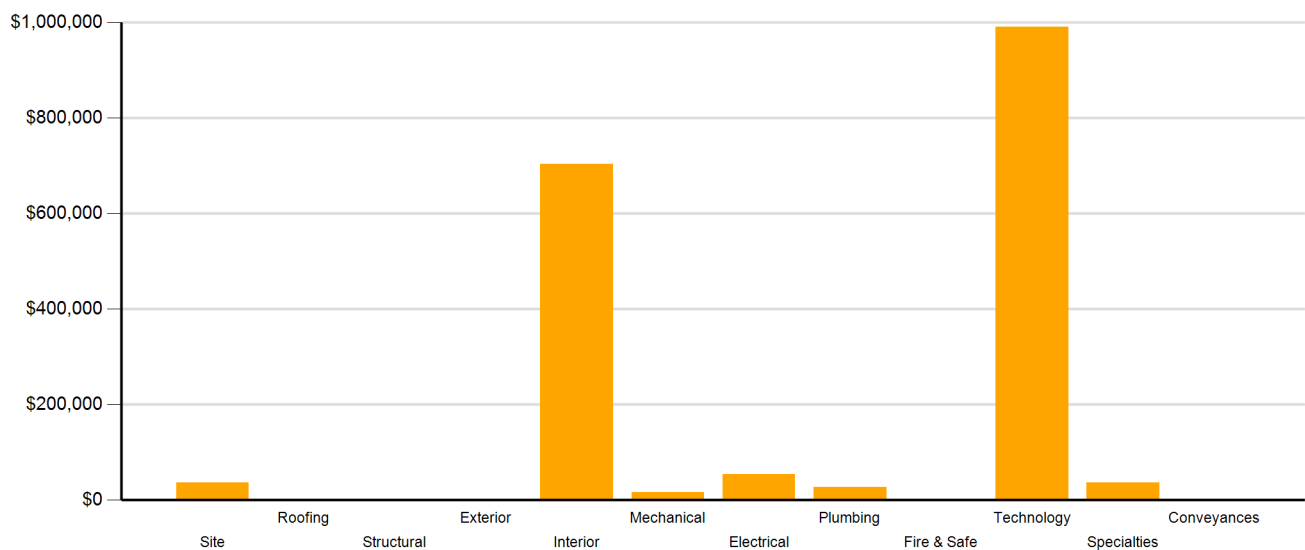


Figure 2: System Deficiencies



## Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insulation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.
- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.
- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.
- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.
- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.
- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.
- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.
- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.
- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.



The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

Category	Priority					Total
	1	2	3	4	5	
Acoustics	-	-	\$273,805	-	-	\$273,805
Barrier to Accessibility	-	-	-	-	-	\$0
Capital Renewal	-	-	\$19,155	-	-	\$19,155
Code Compliance	-	-	-	-	-	\$0
Educational Adequacy	-	-	\$27,527	\$449,265	\$99,311	\$576,103
Functional Deficiency	-	-	-	-	-	\$0
Hazardous Material	-	-	-	\$2,836	-	\$2,836
Technology	-	-	\$990,242	-	-	\$990,242
Traffic	-	-	\$2,294	-	-	\$2,294
<b>Total</b>	\$0	\$0	\$1,313,023	\$452,100	\$99,311	\$1,864,435

\*Displayed totals may not sum exactly due to mathematical rounding

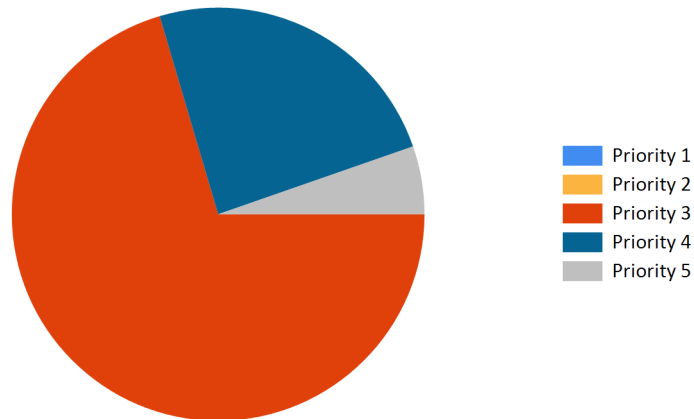


Figure 3: Current deficiencies by priority



### Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

System	Current Deficiencies	Life Cycle Capital Renewal Projections					LC Yr. 1-5 Total	Total 5-Year Need
		Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021		
Site	\$36,846	\$0	\$0	\$0	\$0	\$0	\$0	\$36,846
Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$0	\$0	\$0	\$0	\$25,974	\$259,816	\$285,790	\$285,790
Interior	\$703,442	\$0	\$0	\$0	\$374,426	\$8,625	\$383,051	\$1,086,493
Mechanical	\$16,571	\$0	\$0	\$235,931	\$138,580	\$0	\$374,511	\$391,082
Electrical	\$53,884	\$0	\$0	\$11,856	\$0	\$0	\$11,856	\$65,740
Plumbing	\$27,320	\$0	\$0	\$29,869	\$3,199	\$0	\$33,068	\$60,388
Fire and Life Safety	\$0	\$0	\$0	\$114,367	\$0	\$0	\$114,367	\$114,367
Technology	\$990,242	\$0	\$0	\$0	\$0	\$0	\$0	\$990,242
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$36,129	\$0	\$0	\$0	\$0	\$0	\$0	\$36,129
<b>Total</b>	<b>\$1,864,435</b>	<b>\$0</b>	<b>\$0</b>	<b>\$392,023</b>	<b>\$542,179</b>	<b>\$268,441</b>	<b>\$1,202,643</b>	<b>\$3,067,078</b>

\*Displayed totals may not sum exactly due to mathematical rounding

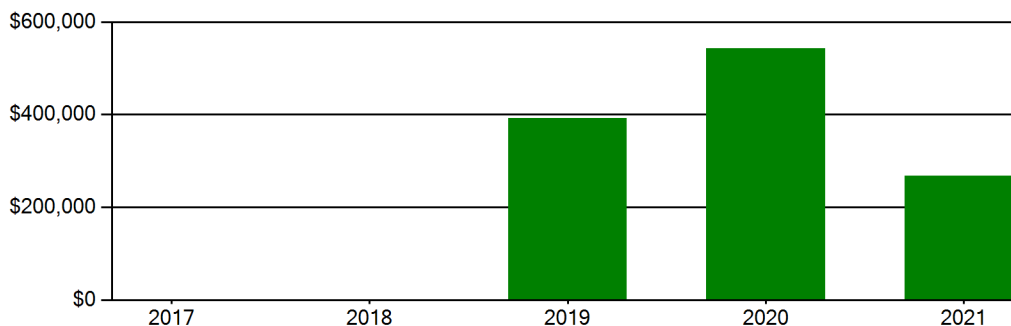
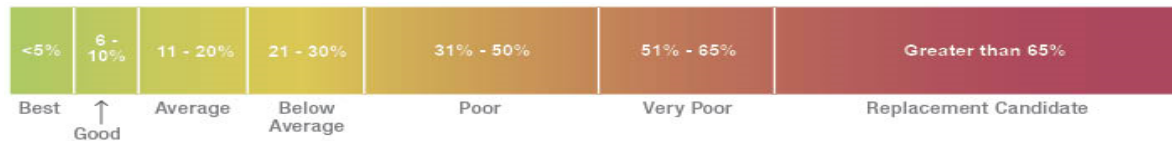


Figure 4: Life Cycle Capital Renewal Forecast



## Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building’s health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today’s estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is \$13,492,500. For planning purposes, the total 5-year need at the Paul Cuffee Charter School - Lower School is \$3,067,078 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Paul Cuffee Charter School - Lower School facility has a 5-year FCI of 22.73%.

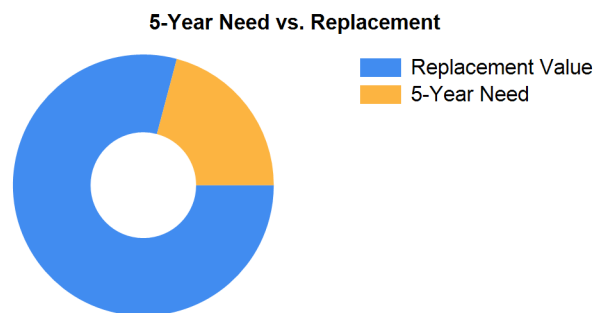


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility’s disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.



## Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 214 students.

## Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Paul Cuffee Charter School - Lower School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$397,656.



### Summary of Findings

The Paul Cuffee Charter School - Lower School comprises 38,550 square feet and was constructed in 1935. Current deficiencies at this school total \$1,864,435. Five year capital renewal costs total \$1,202,643. The total identified need for the Paul Cuffee Charter School - Lower School (current deficiencies and 5-year capital renewal costs) is \$3,067,078. The 5-year FCI is 22.73%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Paul Cuffee Charter School - Lower School Totals	38,550	1935	\$1,864,435	\$1,202,643	\$3,067,078	22.73%

*\*Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

### Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.



## Site Level Deficiencies

### Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Traffic Signage Is Required <b>Note:</b> Replace northbound crosswalk sign on Barton St	Traffic	1	Ea.	3	\$2,294	25076
Backstops Require Replacement <b>Note:</b> Backstops Require Replacement	Educational Adequacy	1	Ea.	4	\$28,674	28667
Exterior Basketball Goals are Required <b>Note:</b> Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	\$5,878	28851
<b>Sub Total for System</b>		<b>3</b>	<b>items</b>		<b>\$36,846</b>	
<b>Sub Total for School and Site Level</b>		<b>3</b>	<b>items</b>		<b>\$36,846</b>	

## Building: 01 - Main Building

### Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation <b>Note:</b> All Classrooms	Acoustics	30	Ea.	3	\$273,805	27883
Interior CMU Walls Require Repair <b>Note:</b> Mortar is failing. <b>Location:</b> Basement boiler room	Capital Renewal	25	SF	3	\$996	24917
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	30	LF	4	\$751	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	200	SF	4	\$2,085	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	10,964	SF	4	\$420,014	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	\$2,294	Rollup
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	\$3,498	Rollup
<b>Sub Total for System</b>		<b>7</b>	<b>items</b>		<b>\$703,442</b>	

### Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Large HVAC Circulating Pump Requires Replacement <b>Note:</b> Missing a 7.5HP Pump	Capital Renewal	1	Ea.	3	\$16,571	24808
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$16,571</b>	

### Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	108	Ea.	5	\$53,884	Rollup
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$53,884</b>	

### Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Sump Pump Requires Replacement <b>Note:</b> The sump pump in the basement boiler room has failed.	Capital Renewal	1	Ea.	3	\$1,589	24810
Floor Drains Are Required	Educational Adequacy	1	Ea.	4	\$577	Rollup
Room lacks a drinking fountain.	Educational Adequacy	13	Ea.	5	\$14,413	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	9	Ea.	5	\$10,741	Rollup
<b>Sub Total for System</b>		<b>4</b>	<b>items</b>		<b>\$27,320</b>	

### Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	144	Ea.	3	\$75,058	24347



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Lower School

## Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	20	Ea.	3	\$437,837	24351
Technology: Instructional spaces do not have local sound reinforcement.	Technology	21	Ea.	3	\$109,459	24355
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$7,297	24345
Technology: Main Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	\$23,768	24344
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	106	Ea.	3	\$49,726	24346
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	48	Ea.	3	\$22,517	24352
Technology: Network system inadequate and/or near end of useful life	Technology	25	Ea.	3	\$130,309	24354
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	34,000	SF	3	\$63,799	24353
Technology: Special Space AV/Multimedia systems are in need of minor improvements.	Technology	1	Room	3	\$20,849	24348
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	25	Ea.	3	\$41,699	24349
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	\$7,923	24350
<b>Sub Total for System</b>		<b>12</b>	<b>items</b>		<b>\$990,242</b>	

## Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	6	Ea.	3	\$27,527	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	1	Ea.	5	\$8,602	Rollup
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>		<b>\$36,129</b>	
<b>Sub Total for Building 01 - Main Building</b>		<b>27</b>	<b>items</b>		<b>\$1,827,589</b>	
<b>Total for Campus</b>		<b>30</b>	<b>items</b>		<b>\$1,864,435</b>	



## Paul Cuffee Charter School - Lower School - Life Cycle Summary Yrs 1-5

### Building: 01 - Main Building

#### Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Exterior Painting - Bldg SF basis	1,928	SF	\$25,974	4
Exterior Operating Windows	Steel - Windows per SF	1,200	SF	\$259,816	5
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$285,789</b>	

#### Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	37,550	SF	\$251,129	4
Carpeting	Carpet	5,599	SF	\$123,297	4
Suspended Plaster and	Painted ceilings	2,037	SF	\$8,625	5
<b>Sub Total for System</b>		<b>3</b>	<b>items</b>	<b>\$383,050</b>	

#### Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Central Cooling	Chiller - Outdoor Air Cooled (130 Tons)	1	Ea.	\$234,652	3
	<b>Note:</b> 120 ton				
Decentralized Heating Equipment	Unit Heater Electric (3 KW)	1	Ea.	\$1,279	3
Decentralized Heating Equipment	Unit Heater Steam/HW (20 MBH)	1	Ea.	\$2,850	4
Decentralized Cooling	Fan Coil - Water Cool/Water Heat ( 3 Ton)	25	Ea.	\$135,730	4
<b>Sub Total for System</b>		<b>4</b>	<b>items</b>	<b>\$374,511</b>	

#### Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)	2	Ea.	\$2,791	3
Lighting Fixtures	Building Mounted Fixtures (Ea.)	6	Ea.	\$9,065	3
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$11,855</b>	

#### Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain	4	Ea.	\$29,869	3
Domestic Water Equipment	Water Heater - Gas - 40 gallon	1	Ea.	\$3,199	4
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$33,068</b>	

#### Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	38,550	SF	\$114,367	3
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>	<b>\$114,367</b>	
<b>Sub Total for Building 01 - Main Building</b>		<b>14</b>	<b>items</b>	<b>\$1,202,640</b>	
<b>Total for: Paul Cuffee Charter School - Lower School</b>		<b>14</b>	<b>items</b>	<b>\$1,202,640</b>	



## Supporting Photos



Library



Group Lavatories



Basement Sump



Roof View



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Lower School



Typical Classroom



Water Heater



Roof View



Water Fountains



Restroom Fixtures And Finishes



Boiler Room CMU



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Lower School



Hallway Finishes



Gym



Cafeteria



Exterior



Paved Play Area



Cast Iron Boilers



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Lower School



Electrical Disconnect



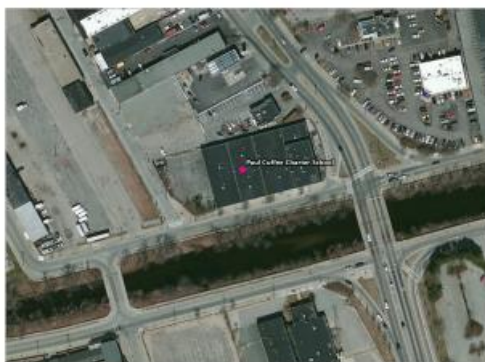
Backflow Preventer



Deficient Sump Pump



Exhaust Fans



Site Aerial



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School

June 2017

30 Barton Street, Providence, RI 02909





## Introduction

Paul Cuffee Charter School - Middle School, located at 30 Barton Street in Providence, Rhode Island, was built in 1963. It comprises 34,000 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Paul Cuffee Charter School - Middle School serves grades 6 - 8, has 14 instructional spaces, and has an enrollment of 180. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Paul Cuffee Charter School - Middle School is 180 with a resulting utilization of 100%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Paul Cuffee Charter School - Middle School the 5-year need is \$8,144,830. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.



Figure 1: Aerial view of Paul Cuffee Charter School - Middle School



## Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

**Current Deficiencies:** Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

**Life Cycle Forecast:** Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

## Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

**Facility Condition Assessment:** Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

**Technology:** Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

**Hazardous Materials:** Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

**Traffic:** A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

**Acoustics:** Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

**Educational Program Space Assessment:** Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.



### System Summaries

The following tables summarize major building systems at the Paul Cuffee Charter School - Middle School campus, identified by discipline and building.

#### Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Concrete Pedestrian Pavement

#### Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	Steel Exterior Windows
	Steel Exterior Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Built-Up Roofing With Ballast
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#### Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring

#### Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	1,275 MBH Cast Iron Steam Boiler
	40 GPM Steam to Water Heat Exchanger
	Steam Condensate Receiver, Tank and Pump
	Radiant Water Heater
	Steam/Hot Water Heating Unit Vent
	Electronic Heating System Controls



<b>01 - Main Building:</b>	3 Ton Outside Air Cooled Condenser
	3 Ton D/X Fan Coil
	Window Units
	1 HP or Smaller Pump
	2-Pipe Steam Hydronic Distribution System
	2,000 CFM Interior AHU
	Ductwork
	Kitchen Exhaust Hoods
	Large Roof Exhaust Fan
	Small Roof Exhaust Fan
	Wall Exhaust Fan

## Plumbing

The plumbing systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	Gas Piping System
	66 Gallon Electric Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals

## Electrical

The electrical systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Electrical Disconnect
	Light Fixtures
	Building Mounted Lighting Fixtures



## Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

**Priority 1 – Mission Critical Concerns:** Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

**Priority 2 - Indirect Impact to Educational Mission:** Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

**Priority 3 - Short-Term Conditions:** Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

**Priority 4 - Long-Term Requirements:** Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

**Priority 5 - Enhancements:** Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.



The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

System	Priority					Total	% of Total
	1	2	3	4	5		
Site	-	-	-	\$425,868	\$399,473	\$825,342	11.48 %
Roofing	-	\$350,270	\$1,657	-	-	\$351,927	4.90 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	\$2,208,433	-	-	-	\$2,208,433	30.73 %
Interior	-	-	\$682,465	\$756,486	\$62,476	\$1,501,426	20.89 %
Mechanical	-	\$267,165	-	\$235,168	\$549,654	\$1,051,987	14.64 %
Electrical	-	\$43,476	-	-	\$28,129	\$71,605	1.00 %
Plumbing	-	-	\$13,453	\$78,303	\$3,763	\$95,518	1.33 %
Fire and Life Safety	\$450,775	-	-	-	-	\$450,775	6.27 %
Technology	-	-	\$467,245	-	-	\$467,245	6.50 %
Conveyances	-	-	-	-	-	\$0	0.00 %
Specialties	-	-	\$4,619	\$158,538	-	\$163,156	2.27 %
<b>Total</b>	\$450,775	\$2,869,343	\$1,169,438	\$1,654,363	\$1,043,495	\$7,187,413	

\*Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Exterior	-	\$2,208,433
Interior	-	\$1,501,426
Mechanical	-	\$1,051,987

The chart below represents the building systems and associated deficiency costs.

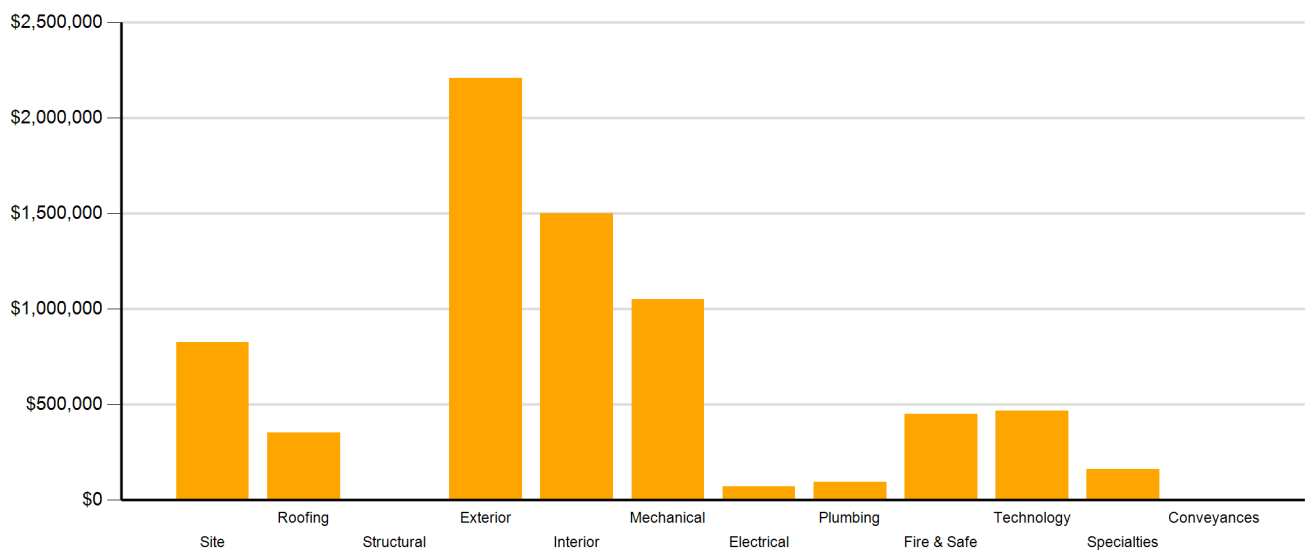


Figure 2: System Deficiencies



## Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insulation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.
- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.
- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.
- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.
- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.
- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.
- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.
- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.
- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.



The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

Category	Priority					Total
	1	2	3	4	5	
Acoustics	-	-	\$106,813	-	-	\$106,813
Barrier to Accessibility	-	-	\$104,792	-	-	\$104,792
Capital Renewal	-	\$2,869,343	\$485,969	\$1,234,161	\$605,163	\$5,194,637
Code Compliance	\$450,775	-	-	-	-	\$450,775
Educational Adequacy	-	-	\$4,619	\$78,350	\$438,294	\$521,262
Functional Deficiency	-	-	-	-	-	\$0
Hazardous Material	-	-	-	\$341,851	\$38	\$341,890
Technology	-	-	\$467,245	-	-	\$467,245
Traffic	-	-	-	-	-	\$0
<b>Total</b>	<b>\$450,775</b>	<b>\$2,869,343</b>	<b>\$1,169,438</b>	<b>\$1,654,363</b>	<b>\$1,043,495</b>	<b>\$7,187,413</b>

\*Displayed totals may not sum exactly due to mathematical rounding

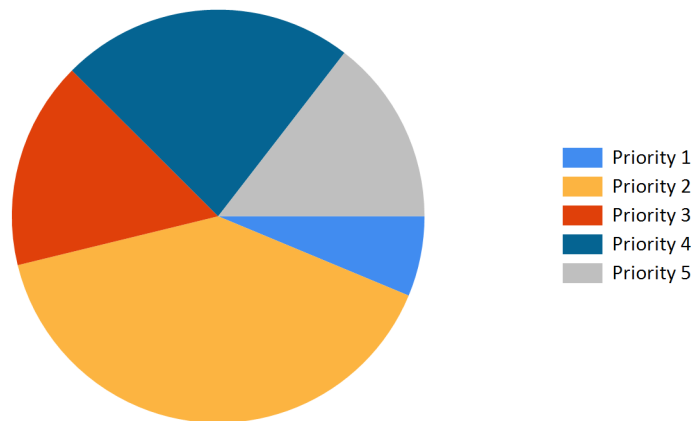


Figure 3: Current deficiencies by priority



### Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

System	Current Deficiencies	Life Cycle Capital Renewal Projections					LC Yr. 1-5 Total	Total 5-Year Need
		Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021		
Site	\$825,342	\$0	\$0	\$0	\$0	\$0	\$0	\$825,342
Roofing	\$351,927	\$0	\$0	\$0	\$0	\$0	\$0	\$351,927
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$2,208,433	\$0	\$0	\$0	\$0	\$0	\$0	\$2,208,433
Interior	\$1,501,426	\$0	\$0	\$21,594	\$166,527	\$0	\$188,121	\$1,689,547
Mechanical	\$1,051,987	\$0	\$0	\$42,188	\$205,451	\$26,836	\$274,475	\$1,326,462
Electrical	\$71,605	\$0	\$0	\$0	\$9,065	\$204,485	\$213,550	\$285,155
Plumbing	\$95,518	\$0	\$0	\$0	\$0	\$281,271	\$281,271	\$376,789
Fire and Life Safety	\$450,775	\$0	\$0	\$0	\$0	\$0	\$0	\$450,775
Technology	\$467,245	\$0	\$0	\$0	\$0	\$0	\$0	\$467,245
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$163,156	\$0	\$0	\$0	\$0	\$0	\$0	\$163,157
<b>Total</b>	<b>\$7,187,413</b>	<b>\$0</b>	<b>\$0</b>	<b>\$63,782</b>	<b>\$381,043</b>	<b>\$512,592</b>	<b>\$957,417</b>	<b>\$8,144,830</b>

\*Displayed totals may not sum exactly due to mathematical rounding

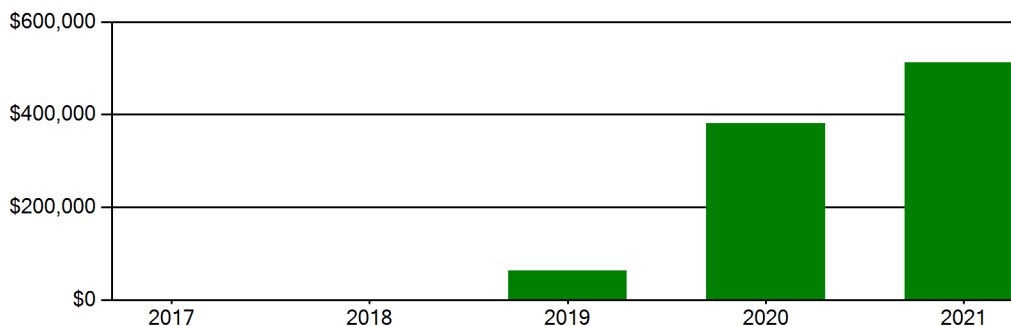
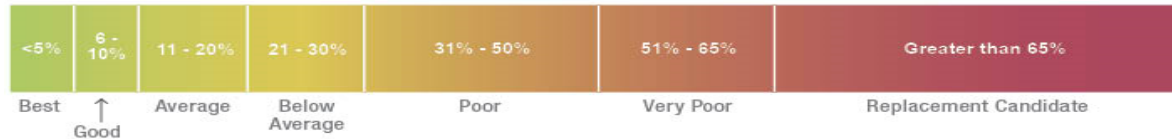


Figure 4: Life Cycle Capital Renewal Forecast



## Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building’s health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today’s estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is \$11,220,000. For planning purposes, the total 5-year need at the Paul Cuffee Charter School - Middle School is \$8,144,830 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Paul Cuffee Charter School - Middle School facility has a 5-year FCI of 72.59%.

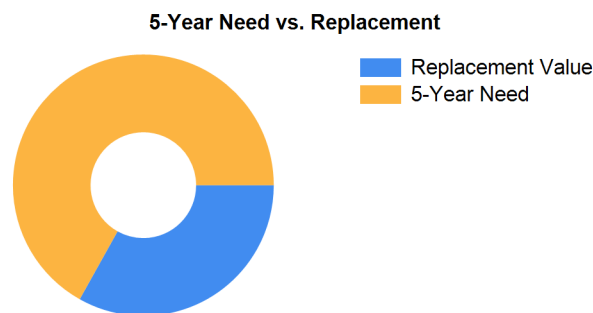


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility’s disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.



## Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 179 students.

## Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Paul Cuffee Charter School - Middle School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$666,468.



### Summary of Findings

The Paul Cuffee Charter School - Middle School comprises 34,000 square feet and was constructed in 1963. Current deficiencies at this school total \$7,187,413. Five year capital renewal costs total \$957,417. The total identified need for the Paul Cuffee Charter School - Middle School (current deficiencies and 5-year capital renewal costs) is \$8,144,830. The 5-year FCI is 72.59%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Paul Cuffee Charter School - Middle School Totals	34,000	1963	\$7,187,413	\$957,417	\$8,144,830	72.59%

\*Displayed totals may not sum exactly due to mathematical rounding

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

### Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.



## Site Level Deficiencies

### Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Paving Requires Replacement <b>Note:</b> Asphalt parking lot is cracked and uneven.	Capital Renewal	22	CAR	4	\$73,178	12467
Backstops Require Replacement <b>Note:</b> Backstops Require Replacement	Educational Adequacy	1	Ea.	4	\$28,674	28669
Fencing Requires Replacement (Ornamental Fence) <b>Note:</b> Fencing is rusted.	Capital Renewal	300	LF	4	\$324,016	12466
Exterior Basketball Goals are Required <b>Note:</b> Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	\$5,878	28852
PE / Recess Playfield is Missing and is Needed <b>Note:</b> PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	\$64,800	54996
School lacks a competition track. <b>Note:</b> School lacks a competition track.	Educational Adequacy	1	Ea.	5	\$328,795	28303
<b>Sub Total for System</b>		<b>6</b>	<b>items</b>		<b>\$825,342</b>	
<b>Sub Total for School and Site Level</b>		<b>6</b>	<b>items</b>		<b>\$825,342</b>	

## Building: 01 - Main Building

### Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Built-up Roofing With Aggregate Ballast Requires Replacement <b>Note:</b> Roof leaks and was reported to have undergone multiple repairs.	Capital Renewal	9,100	SF	2	\$350,270	11986
The Roof Operable Hatch Requires Replacement <b>Note:</b> Roof access hatch has a disjointed ladder and should be replaced with a continuous fixed unit and access hatch.	Capital Renewal	1	Ea.	3	\$1,657	11976
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>		<b>\$351,927</b>	

### Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Steel Window Requires Replacement <b>Note:</b> Windows are single glazed, original to the building, and should be replaced.	Capital Renewal	10,200	SF	2	\$2,208,433	11975
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$2,208,433</b>	

### Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation <b>Note:</b> All classrooms	Acoustics	12	Ea.	3	\$106,813	19859
The Acoustical Ceiling Tiles Require Replacement <b>Note:</b> Ceiling tiles are sagging, cracked, and yellowed.	Capital Renewal	28,900	SF	3	\$264,194	11977
The Ceramic Tile Flooring Requires Replacement <b>Note:</b> Small format tiles and grout are stained. Large format tiles are cracked.	Capital Renewal	1,360	SF	3	\$36,966	11980
The Interior Door Hardware Requires Replacement <b>Note:</b> Hardware is non-compliant or missing (one double door).	Barrier to Accessibility	33	Door	3	\$104,792	11987
The Vinyl Composition Tile Requires Replacement <b>Note:</b> Original VCT should be replaced.	Capital Renewal	12,648	SF	3	\$146,862	11978
The Wood Flooring Requires Replacement <b>Note:</b> Wood floor at stage is worn.	Capital Renewal	680	SF	3	\$22,837	11979
Ceiling Grid Requires Replacement <b>Note:</b> Ceiling grid is rusting.	Capital Renewal	28,900	SF	4	\$346,945	11997
Interior Ceramic Walls Require Repair Or Replacement <b>Note:</b> Ceramic wall tiles are cracked and broken.	Capital Renewal	800	SF	4	\$18,014	11998
Light Deterioration or Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	10,526	SF	4	\$301,823	Rollup
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	122	Ea.	4	\$34,982	Rollup



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School

## Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	220	LF	4	\$5,047	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	1,288	SF	4	\$49,676	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	3	Ea.	5	\$6,928	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	8,300	SF	5	\$55,509	Rollup
Wall/ceiling materials - area < 9 sq. ft. AND NOT in children-accessible area	Hazardous Material	4	SF	5	\$38	Rollup
<b>Sub Total for System</b>					<b>15 items</b>	<b>\$1,501,426</b>

## Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Air Handler HVAC Component Requires Replacement <b>Location:</b> Multipurpose room	Capital Renewal	2	Ea.	2	\$87,325	11990
The Boiler HVAC Component Requires Replacement <b>Note:</b> Boiler #2 is leaking and the housing has been removed.	Capital Renewal	1	Ea.	2	\$75,259	11991
The Steam/Hot Water Radiant Heater Requires Replacement <b>Note:</b> Cabinets are damaged and heaters are not performing as designed.	Capital Renewal	20	Ea.	2	\$104,581	11994
Exhaust Fan Ventilation Requires Replacement <b>Location:</b> Kitchen	Capital Renewal	1	Ea.	4	\$2,710	11982
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls <b>Note:</b> Controls are not performing as designed.	Capital Renewal	34,000	SF	4	\$232,458	11995
Duct Cleaning Required <b>Note:</b> Exhaust grilles are coated in dirt and debris.	Capital Renewal	34,000	SF	5	\$549,654	11981
<b>Sub Total for System</b>					<b>6 items</b>	<b>\$1,051,987</b>

## Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Switchgear Is Needed Or Requires Replacement <b>Note:</b> The main service is aged and unreliable.	Capital Renewal	1	Ea.	2	\$19,515	11999
The Panelboard Requires Replacement <b>Note:</b> Electrical panels are aged and unreliable. <b>Location:</b> Corridors	Capital Renewal	3	Ea.	2	\$17,610	11992
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	\$6,351	11993
Room Has Insufficient Electrical Outlets	Educational Adequacy	56	Ea.	5	\$28,129	Rollup
<b>Sub Total for System</b>					<b>4 items</b>	<b>\$71,605</b>

## Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	10	Ea.	3	\$13,453	11988
The Refrigerated Water Cooler Requires Replacement <b>Note:</b> Activation lever is damaged.	Capital Renewal	1	Ea.	4	\$7,467	11989
The Restroom Lavatories Plumbing Fixtures Require Replacement <b>Note:</b> Sinks are aged with significant staining and corrosion. They lack hot water.	Capital Renewal	22	Ea.	4	\$70,835	11983
Room lacks a drinking fountain.	Educational Adequacy	2	Ea.	5	\$2,232	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	1	Ea.	5	\$1,530	Rollup
<b>Sub Total for System</b>					<b>5 items</b>	<b>\$95,518</b>

## Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Install Fire Sprinklers (NFPA 13) <b>Note:</b> Provide fire protection system for the building.	Code Compliance	34,000	SF	1	\$450,775	11974
<b>Sub Total for System</b>					<b>1 items</b>	<b>\$450,775</b>

## Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	72	Ea.	3	\$34,642	24335



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School

## Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Instructional spaces do not have local sound reinforcement.	Technology	16	Ea.	3	\$76,982	24343
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,736	24332
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	\$50,808	24331
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	28	Ea.	3	\$12,125	24334
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	96	Ea.	3	\$41,571	24339
Technology: Network system inadequate and/or near end of useful life	Technology	3	Ea.	3	\$23,095	24341
Technology: Network system inadequate and/or near end of useful life	Technology	25	Ea.	3	\$120,285	24342
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	25,200	SF	3	\$43,649	24340
Technology: Special Space AV/Multimedia systems are in need of minor improvements.	Technology	1	Room	3	\$19,246	24336
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$7,698	24333
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	15	Ea.	3	\$23,095	24337
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	\$7,313	24338
<b>Sub Total for System</b>		<b>13</b>	<b>items</b>		<b>\$467,245</b>	

## Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	\$4,619	Rollup
Replace Cabinetry In Classes/Labs <b>Note:</b> Cabinetry is aged and worn.	Capital Renewal	14	Room	4	\$158,538	11996
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>		<b>\$163,156</b>	
<b>Sub Total for Building 01 - Main Building</b>		<b>49</b>	<b>items</b>		<b>\$6,362,072</b>	
<b>Total for Campus</b>		<b>55</b>	<b>items</b>		<b>\$7,187,413</b>	



**Paul Cuffee Charter School - Middle School - Life Cycle Summary Yrs 1-5**

**Building: 01 - Main Building**

**Interior**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings	5,100	SF	\$21,594	3
Wall Painting and Coating	Painting/Staining (Bldg SF)	24,900	SF	\$166,527	4
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$188,121</b>	

**Mechanical**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exhaust Air	Roof Exhaust Fan - Large	3	Ea.	\$42,188	3
Decentralized Heating Equipment	Heating Unit Vent - Steam/Hot water	12	Ea.	\$205,451	4
Exhaust Air	Roof Exhaust Fan - Small	4	Ea.	\$10,677	5
Exhaust Air	Kitchen Exhaust Hoods	1	Ea.	\$16,159	5
<b>Sub Total for System</b>		<b>4</b>	<b>items</b>	<b>\$274,475</b>	

**Electrical**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	6	Ea.	\$9,065	4
Lighting Fixtures	Light Fixtures (Bldg SF)	34,000	SF	\$204,485	5
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$213,549</b>	

**Plumbing**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Piping	Domestic Water Piping System (Bldg,SF)	34,000	SF	\$276,893	5
Domestic Water Equipment	Water Heater - Electric - 66 gallon	1	Ea.	\$4,378	5
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$281,271</b>	
<b>Sub Total for Building 01 - Main Building</b>		<b>10</b>	<b>items</b>	<b>\$957,417</b>	
<b>Total for: Paul Cuffee Charter School - Middle School</b>		<b>10</b>	<b>items</b>	<b>\$957,417</b>	



## Supporting Photos



Weathered Roof



Roof Condition



Damaged Drinking Fountain



Fire Alarm Control Panel



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School



Kitchen Hood



Hallway Finishes



Site Aerial



Unit Heater / Ventilator



Rusted Ceiling Grid



Typical Classroom



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School



Window A/C



Emergency Lights



Exterior



Single Pane Classroom Windows



Boiler #1



Separating VCT Flooring



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School



Condensing Unit



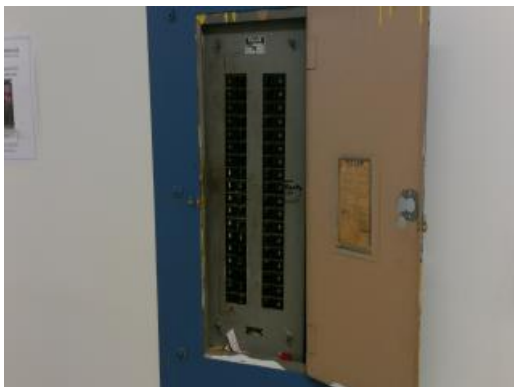
Leaking Boiler



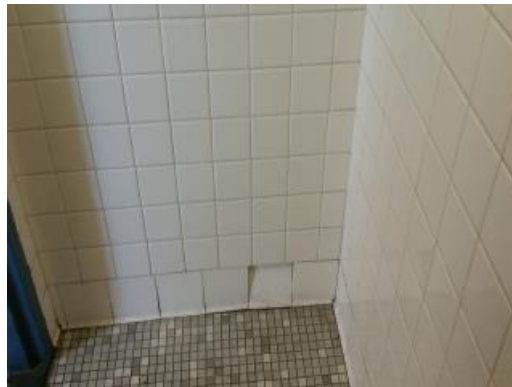
Sagging Ceiling Tiles



Aged Classroom Cabinetry



Aged Electrical Panel



Broken Tiles At Wall



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Middle School



Main Service Panel



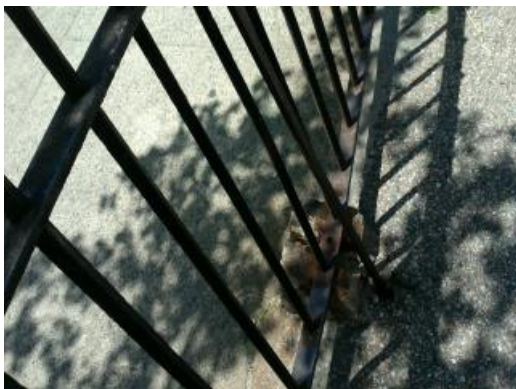
Gym



Classroom Sink



Elevation



Rusted Ornamental Fence



Alligatored Asphalt



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School

June 2017

544 Elmwood Avenue, Providence, RI 02907





## Introduction

Paul Cuffee Charter School - Upper School, located at 544 Elmwood Avenue in Providence, Rhode Island, was built in 1940. It comprises 49,800 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Paul Cuffee Charter School - Upper School serves grades 9 - 12, has 21 instructional spaces, and has an enrollment of 269. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Paul Cuffee Charter School - Upper School is 242 with a resulting utilization of 111%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Paul Cuffee Charter School - Upper School the 5-year need is \$3,551,025. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.



Figure 1: Aerial view of Paul Cuffee Charter School - Upper School



## Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

**Current Deficiencies:** Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

**Life Cycle Forecast:** Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

## Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

**Facility Condition Assessment:** Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

**Technology:** Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

**Hazardous Materials:** Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

**Traffic:** A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

**Acoustics:** Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

**Educational Program Space Assessment:** Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.



### System Summaries

The following tables summarize major building systems at the Paul Cuffee Charter School - Upper School campus, identified by discipline and building.

#### Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Brick Pedestrian Pavement
	Concrete Pedestrian Pavement

#### Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	Glass Block Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Storefront Entrance Doors
	Overhead Exterior Utility Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Built-Up Roofing With Ballast
	EPDM Roofing

#### Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Aluminum/Glass Storefront Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	FRP Wall Finish
	Interior Wall Painting
	Quarry Tile Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet



**Mechanical**

The mechanical systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	3,264 MBH Cast Iron Water Boiler
	20 MBH Steam Unit Heater
	DDC Heating System Controls
	100 Ton Outdoor Air Cooled Chiller
	3 Ton Condensing Unit
	2 Ton Ductless Split System
	3 Ton Fan Coil - Water Cool/Water Heat
	Make-up Air Unit
	10 HP Pump
	4-Pipe Hydronic Distribution System
	Ductwork
	10 Ton DX Gas Roof Top Unit
	25 Ton DX Gas Roof Top Unit
	5 Ton DX Gas Roof Top Unit
	Large Roof Exhaust Fan
	Laboratory Fume Hood
	Fire Sprinkler System

**Plumbing**

The plumbing systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	2" Backflow Preventers
	3/4" Backflow Preventers
	Gas Piping System
	75 Gallon Gas Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Sump Pump

**Electrical**

The electrical systems for the building(s) at this campus include:

<b>01 - Main Building:</b>	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
	Light Fixtures



## Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

**Priority 1 – Mission Critical Concerns:** Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

**Priority 2 - Indirect Impact to Educational Mission:** Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

**Priority 3 - Short-Term Conditions:** Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

**Priority 4 - Long-Term Requirements:** Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

**Priority 5 - Enhancements:** Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

System	Priority					Total	% of Total
	1	2	3	4	5		
Site	-	-	\$4,588	\$45,305	\$1,015,945	\$1,065,838	39.03 %
Roofing	-	\$211,276	-	-	-	\$211,276	7.74 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	-	-	-	-	\$0	0.00 %
Interior	-	-	\$357,135	\$17,319	\$288,404	\$662,858	24.28 %
Mechanical	-	\$7,169	\$114,822	-	\$1,789	\$123,780	4.53 %
Electrical	-	-	-	-	\$39,914	\$39,914	1.46 %
Plumbing	-	-	-	-	\$17,415	\$17,415	0.64 %
Fire and Life Safety	-	-	-	-	-	\$0	0.00 %
Technology	-	-	\$592,261	-	-	\$592,261	21.69 %
Conveyances	-	-	-	-	-	\$0	0.00 %
Specialties	-	-	-	-	\$17,204	\$17,204	0.63 %
<b>Total</b>	\$0	\$218,444	\$1,068,806	\$62,625	\$1,380,672	\$2,730,546	

\*Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Site	-	\$1,065,838
Interior	-	\$662,858
Technology	-	\$592,261

The chart below represents the building systems and associated deficiency costs.

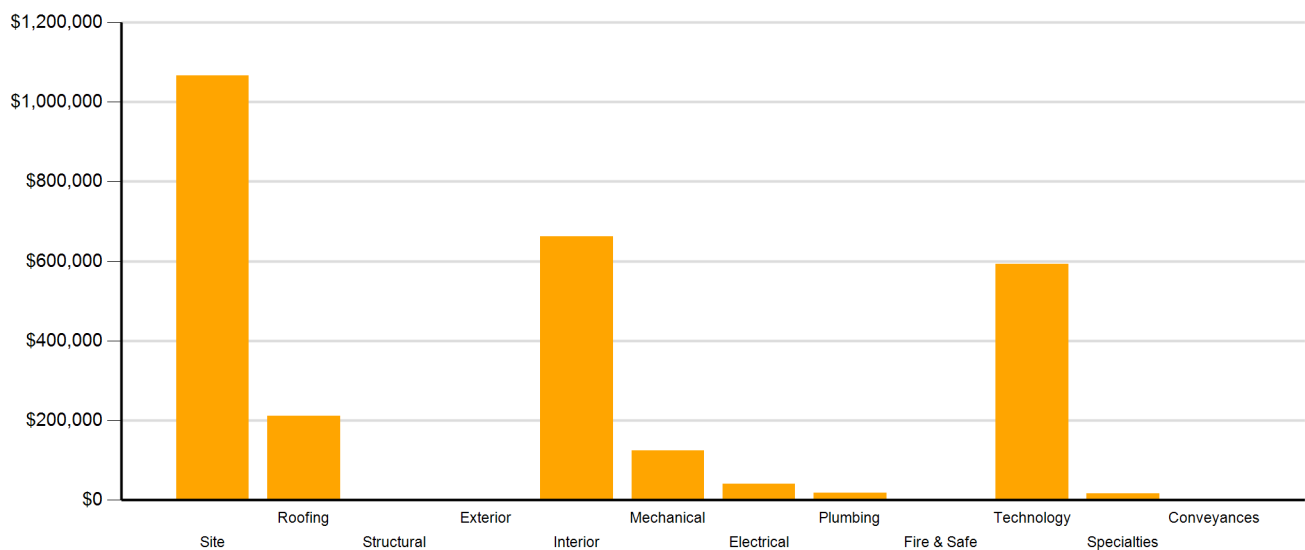


Figure 2: System Deficiencies



## Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insulation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.
- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.
- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.
- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.
- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.
- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.
- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.
- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.
- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.



The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

Category	Priority					Total
	1	2	3	4	5	
Acoustics	-	-	\$471,957	-	-	\$471,957
Barrier to Accessibility	-	-	-	-	-	\$0
Capital Renewal	-	\$218,444	-	\$16,631	\$290,193	\$525,269
Code Compliance	-	-	-	-	-	\$0
Educational Adequacy	-	-	\$45,878	\$28,674	\$1,090,479	\$1,165,031
Functional Deficiency	-	-	-	-	-	\$0
Hazardous Material	-	-	-	\$17,319	-	\$17,319
Technology	-	-	\$546,383	-	-	\$546,383
Traffic	-	-	\$4,588	-	-	\$4,588
<b>Total</b>	\$0	\$218,444	\$1,068,806	\$62,625	\$1,380,672	\$2,730,546

\*Displayed totals may not sum exactly due to mathematical rounding

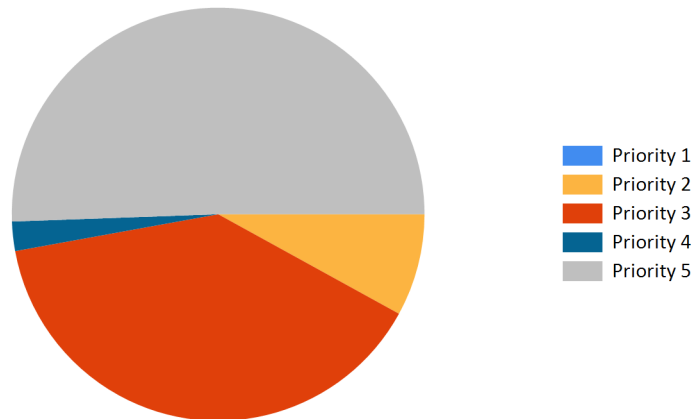


Figure 3: Current deficiencies by priority



### Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

System	Current Deficiencies	Life Cycle Capital Renewal Projections					LC Yr. 1-5 Total	Total 5-Year Need
		Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021		
Site	\$1,065,838	\$0	\$0	\$0	\$0	\$0	\$0	\$1,065,839
Roofing	\$211,276	\$0	\$0	\$0	\$0	\$0	\$0	\$211,276
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interior	\$662,858	\$0	\$54,833	\$0	\$0	\$382,749	\$437,582	\$1,100,440
Mechanical	\$123,780	\$0	\$0	\$342,096	\$21,794	\$0	\$363,890	\$487,670
Electrical	\$39,914	\$0	\$0	\$0	\$11,624	\$0	\$11,624	\$51,538
Plumbing	\$17,415	\$0	\$0	\$0	\$0	\$7,383	\$7,383	\$24,798
Fire and Life Safety	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Technology	\$592,261	\$0	\$0	\$0	\$0	\$0	\$0	\$592,261
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$17,204	\$0	\$0	\$0	\$0	\$0	\$0	\$17,204
<b>Total</b>	<b>\$2,730,546</b>	<b>\$0</b>	<b>\$54,833</b>	<b>\$342,096</b>	<b>\$33,418</b>	<b>\$390,132</b>	<b>\$820,479</b>	<b>\$3,551,025</b>

\*Displayed totals may not sum exactly due to mathematical rounding

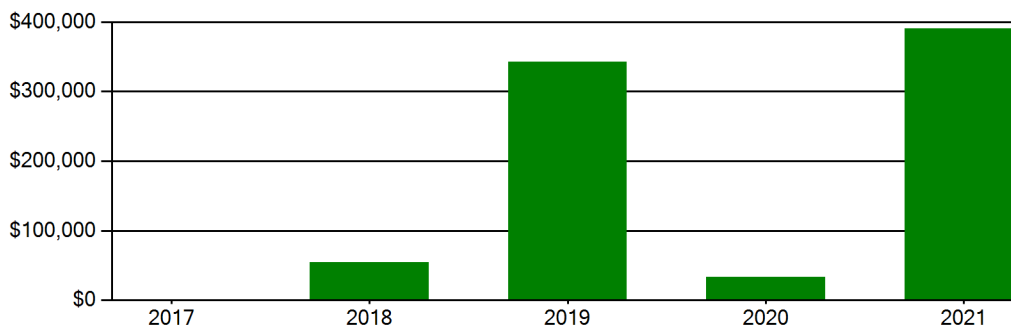
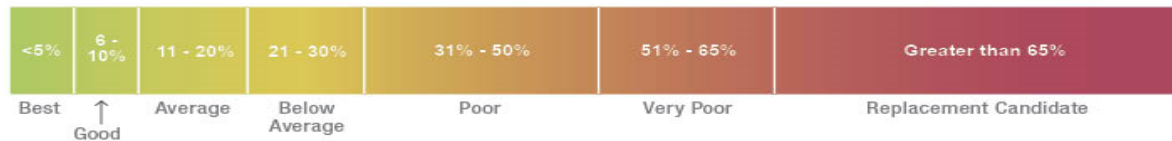


Figure 4: Life Cycle Capital Renewal Forecast



## Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building’s health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today’s estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is \$17,928,000. For planning purposes, the total 5-year need at the Paul Cuffee Charter School - Upper School is \$3,551,025 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Paul Cuffee Charter School - Upper School facility has a 5-year FCI of 19.81%.

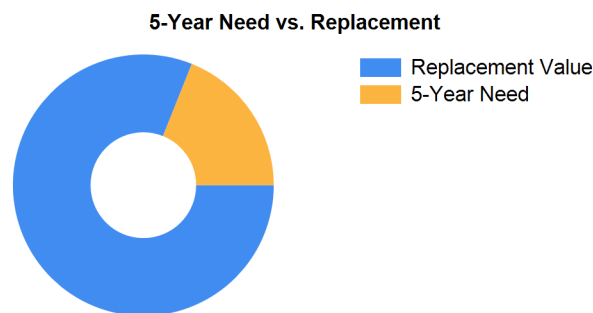


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility’s disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.



## Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 243 students.

## Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Paul Cuffee Charter School - Upper School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$516,326.



### Summary of Findings

The Paul Cuffee Charter School - Upper School comprises 49,800 square feet and was constructed in 1940. Current deficiencies at this school total \$2,730,546. Five year capital renewal costs total \$820,479. The total identified need for the Paul Cuffee Charter School - Upper School (current deficiencies and 5-year capital renewal costs) is \$3,551,025. The 5-year FCI is 19.81%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Paul Cuffee Charter School - Upper School Totals	49,800	1940	\$2,730,546	\$820,479	\$3,551,025	19.81%

*\*Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

### Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.



## Site Level Deficiencies

### Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Traffic Signage Is Required <b>Note:</b> Add flashing beacons to school zone speed limit signs	Traffic	2	Ea.	3	\$4,588	25064
Asphalt Paving Requires Replacement <b>Note:</b> The area around the center of the parking lot has settled and the asphalt has cracked.	Capital Renewal	5	CAR	4	\$16,631	24711
Backstops Require Replacement <b>Note:</b> Backstops Require Replacement	Educational Adequacy	1	Ea.	4	\$28,674	28668
PE / Recess Playfield is Missing and is Needed <b>Note:</b> PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	\$64,800	54995
School has insufficient # of tennis courts. <b>Note:</b> School has insufficient # of tennis courts.	Educational Adequacy	1	Ea.	5	\$163,566	29076
School has insufficient baseball fields. <b>Note:</b> School has insufficient baseball fields.	Educational Adequacy	1	Ea.	5	\$210,276	28349
School has insufficient football/soccer fields. <b>Note:</b> School has insufficient football/soccer fields.	Educational Adequacy	1	Ea.	5	\$95,580	28217
School has insufficient softball fields. <b>Note:</b> School has insufficient softball fields.	Educational Adequacy	1	Ea.	5	\$152,928	28392
School lacks a competition track. <b>Note:</b> School lacks a competition track.	Educational Adequacy	1	Ea.	5	\$328,795	28302
<b>Sub Total for System</b>		<b>9</b>	<b>items</b>		<b>\$1,065,838</b>	
<b>Sub Total for School and Site Level</b>		<b>9</b>	<b>items</b>		<b>\$1,065,838</b>	

## Building: 01 - Main Building

### Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
EPDM Roofing Requires Replacement (Bldg SF) <b>Note:</b> The school staff indicated that the roof is leaking.	Capital Renewal	16,620	SF	2	\$211,276	24715
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$211,276</b>	

### Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation <b>Note:</b> All Classrooms	Acoustics	30	Ea.	3	\$251,041	27884
Classroom Interior Doors Provide Insufficient Sound Isolation <b>Note:</b> All Classrooms	Acoustics	12	Ea.	3	\$106,094	27885
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	9	Ea.	4	\$2,581	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	130	LF	4	\$2,982	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	1,230	SF	4	\$11,756	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	43,416	SF	5	\$288,404	Rollup
<b>Sub Total for System</b>		<b>6</b>	<b>items</b>		<b>\$662,858</b>	

### Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Condensing Unit Requires Replacement <b>Note:</b> The condensing unit on the southeast corner of the building is severely corroded, missing insulation, and very loud.	Capital Renewal	1	Ea.	2	\$7,169	24714
Unit Ventilators Are Excessively Noisy	Acoustics	18	Ea.	3	\$114,822	27886
Duct Grill Requires Replacement <b>Note:</b> Return air grilles on the first and second floors are damaged.	Capital Renewal	6	Ea.	5	\$1,789	24712
<b>Sub Total for System</b>		<b>3</b>	<b>items</b>		<b>\$123,780</b>	



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School

## Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	80	Ea.	5	\$39,914	Rollup
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$39,914</b>	

## Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks a drinking fountain.	Educational Adequacy	2	Ea.	5	\$2,217	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	10	Ea.	5	\$15,197	Rollup
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>		<b>\$17,415</b>	

## Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	8	Ea.	3	\$45,878	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	192	Ea.	3	\$92,379	24325
Technology: Instructional spaces do not have local sound reinforcement.	Technology	20	Ea.	3	\$96,228	24330
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	2	Ea.	3	\$10,778	24321
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$38,106	24320
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	\$16,936	24319
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	2	Ea.	3	\$9,623	24322
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,736	24318
Technology: Main Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	\$29,638	24317
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	288	Ea.	3	\$124,711	24324
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	29,000	SF	3	\$50,231	24329
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$4,811	24323
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	2	Ea.	3	\$12,702	24326
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	30	Ea.	3	\$46,189	24327
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	\$7,313	24328
<b>Sub Total for System</b>		<b>15</b>	<b>items</b>		<b>\$592,261</b>	

## Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks an appropriate refrigerator.	Educational Adequacy	2	Ea.	5	\$17,204	Rollup
<b>Sub Total for System</b>		<b>1</b>	<b>items</b>		<b>\$17,204</b>	
<b>Sub Total for Building 01 - Main Building</b>		<b>29</b>	<b>items</b>		<b>\$1,664,708</b>	
<b>Total for Campus</b>		<b>38</b>	<b>items</b>		<b>\$2,730,546</b>	



**Paul Cuffee Charter School - Upper School - Life Cycle Summary Yrs 1-5**

**Building: 01 - Main Building**

**Interior**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet	2,490	SF	\$54,833	2
Suspended Plaster and Acoustical Suspended Ceilings	Painted ceilings	19,800	SF	\$83,834	5
Wall Coverings	FRP Wall Finish	30,000	SF	\$274,250	5
		2,400	SF Wall	\$24,665	5
<b>Sub Total for System</b>		<b>4</b>	<b>items</b>	<b>\$437,582</b>	

**Mechanical**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
HVAC Air Distribution	Roof Top Unit - DX Gas (10 Ton)	2	Ea.	\$60,343	3
HVAC Air Distribution	Roof Top Unit - DX Gas (25 Ton)	1	Ea.	\$73,560	3
HVAC Air Distribution	Roof Top Unit - DX Gas (5 Ton)	1	Ea.	\$19,634	3
Central Cooling	Chiller - Outdoor Air Cooled (100 Tons)	1	Ea.	\$188,559	3
Decentralized Heating Equipment	Unit Heater Steam/HW (20 MBH)	2	Ea.	\$5,701	4
Air Distribution	Make-up Air Unit	1	Ea.	\$16,093	4
<b>Sub Total for System</b>		<b>6</b>	<b>items</b>	<b>\$363,889</b>	

**Electrical**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	4	Ea.	\$6,043	4
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)	4	Ea.	\$5,581	4
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$11,624</b>	

**Plumbing**

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Building Support Plumbing System Supplementary Components	Sump Pump	1	Ea.	\$1,467	5
Domestic Water Equipment	Water Heater - Gas - 75 Gallons	1	Ea.	\$5,916	5
<b>Sub Total for System</b>		<b>2</b>	<b>items</b>	<b>\$7,383</b>	
<b>Sub Total for Building 01 - Main Building</b>		<b>14</b>	<b>items</b>	<b>\$820,478</b>	
<b>Total for: Paul Cuffee Charter School - Upper School</b>		<b>14</b>	<b>items</b>	<b>\$820,478</b>	



**Supporting Photos**



Site Aerial



Drinking Fountain



East Elevation



Panelboard



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School



Lab Hood



Lab Sink



Boiler



Typical Classroom



Building Controls



Restroom Lavatories



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School



Mop Sink



Cracked Asphalt Parking



Chiller



West Elevation



Water Heater



Aged Fan Coil



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School



Corroded Condensing Unit



North Elevation



Damaged Return Air Grille



Backflow Preventer



Brick Walkway



Exterior



# Facility Condition Assessment

Charter - Paul Cuffee Charter School - Upper School



Circulation Pumps



Built-Up Roofing