



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School

June 2017

485 East Avenue, Pawtucket, RI 02860





Introduction

Charles E. Shea Senior High School, located at 485 East Avenue in Pawtucket, Rhode Island, was built in 1940. It comprises 118,281 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.

Charles E. Shea Senior High School serves grades 9 - 12, has 55 instructional spaces, and has an enrollment of 809. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Charles E. Shea Senior High School is 1,016 with a resulting utilization of 80%.

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 Charles E. Shea Senior High School the 5-year need is \$20,923,822. 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.

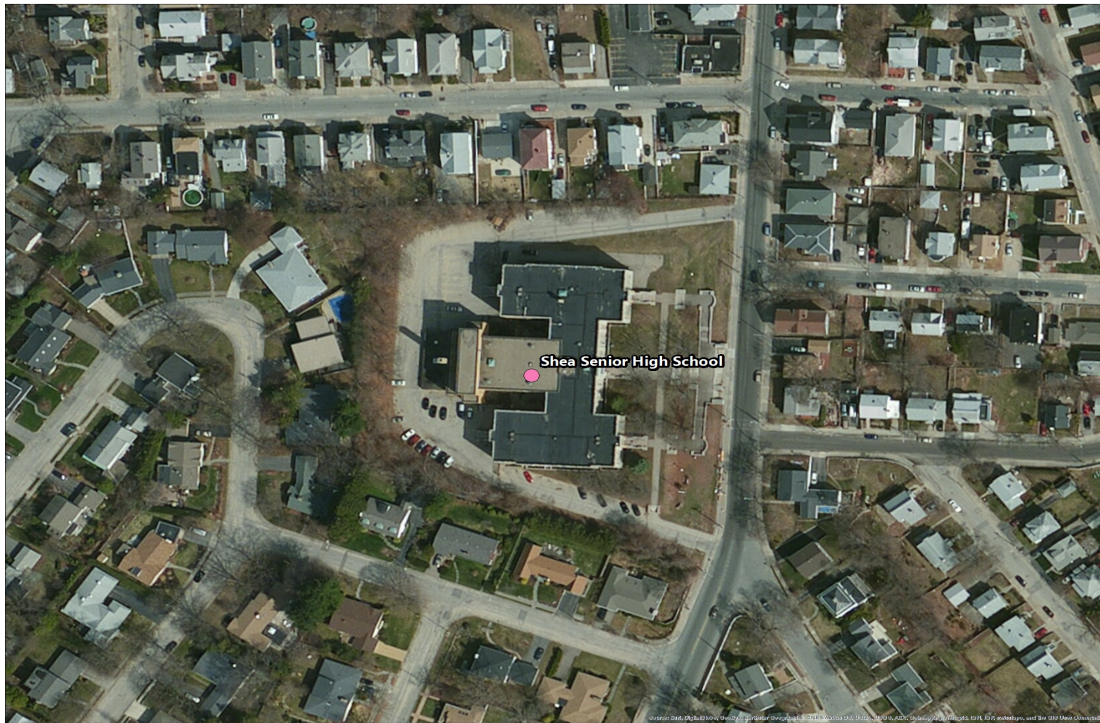


Figure 1: Aerial view of Charles E. Shea Senior High School



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 Charles E. Shea Senior High 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
	Glass Block Exterior Wall
	Pre-cast Concrete Panel Exterior Wall
	Aluminum 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
	EPDM Roofing

Interior

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

01 - Main Building:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Rubber Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet
	Athletic/Sport Flooring



Mechanical

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

01 - Main Building:	4,200 MBH Cast Iron Steam Boiler
	400 MBH Cast Iron Water Boiler
	Steam Condensate Receiver, Tank and Pump
	12 MBH Steam Unit Heater
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	5 Ton Outside Air Cooled Condenser
	Window Units
	Make-up Air Unit
	1 HP or Smaller Pump
	2-Pipe Steam Hydronic Distribution System
	2,000 CFM Interior AHU
	Ductwork
	Laboratory Fume Hood
	4'x6' Ventilator/Relief Vent
	Wall Exhaust Fan

Plumbing

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

01 - Main Building:	100 Gallon Water Storage Tank
	Gas Piping System
	100 Gallon Gas Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
	Sump Pump

Electrical

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

01 - Main Building:	1,500 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A



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01 - Main Building:	Panelboard - 120/208 400A
	Panelboard - 277/480 400A
	Electrical Disconnect
	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.



Facility Condition Assessment

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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	-	-	\$75,827	\$852,505	\$1,286,023	\$2,214,355	11.68 %
Roofing	-	-	-	-	-	\$0	0.00 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	\$2,192,510	\$1,916,736	-	-	\$4,109,246	21.68 %
Interior	-	-	\$2,275,833	\$2,764,926	\$219,340	\$5,260,099	27.75 %
Mechanical	-	\$2,672,565	-	\$77,561	-	\$2,750,126	14.51 %
Electrical	\$1,412	\$160,182	\$50,993	-	\$104,836	\$317,424	1.67 %
Plumbing	-	-	\$548,442	\$202,540	\$54,357	\$805,339	4.25 %
Fire and Life Safety	\$22,817	-	-	-	-	\$22,817	0.12 %
Technology	-	-	\$2,182,347	-	-	\$2,182,347	11.52 %
Conveyances	-	-	\$329,575	-	-	\$329,575	1.74 %
Specialties	-	-	\$4,563	\$886,058	\$70,161	\$960,783	5.07 %
Total	\$24,229	\$5,025,257	\$7,384,316	\$4,783,590	\$1,734,718	\$18,952,109	

*Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Interior	-	\$5,260,099
Exterior	-	\$4,109,246
Mechanical	-	\$2,750,126

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

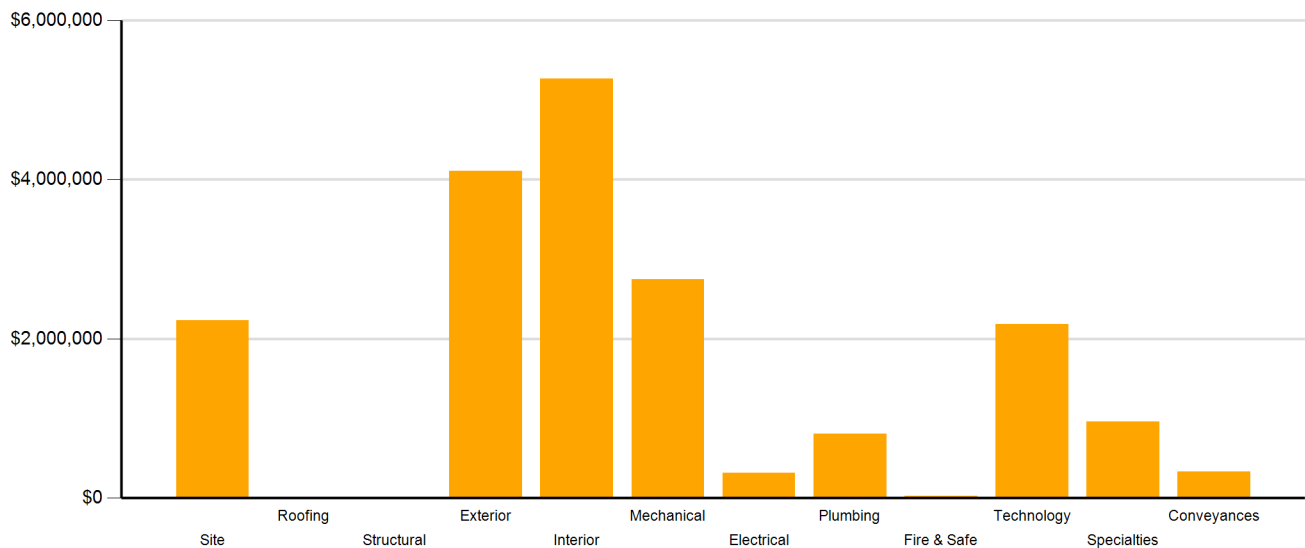


Figure 2: System Deficiencies



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	-	-	\$495,392	-	-	\$495,392
Barrier to Accessibility	-	-	\$1,036,513	-	-	\$1,036,513
Capital Renewal	-	\$5,025,257	\$3,655,676	\$2,727,042	\$220,605	\$11,628,579
Code Compliance	-	-	-	-	-	\$0
Educational Adequacy	\$24,229	-	\$10,268	\$501,671	\$1,514,062	\$2,050,229
Functional Deficiency	-	-	-	-	-	\$0
Hazardous Material	-	-	-	\$1,554,877	\$52	\$1,554,928
Technology	-	-	\$2,176,643	-	-	\$2,176,643
Traffic	-	-	\$9,824	-	-	\$9,824
Total	\$24,229	\$5,025,257	\$7,384,316	\$4,783,590	\$1,734,718	\$18,952,109

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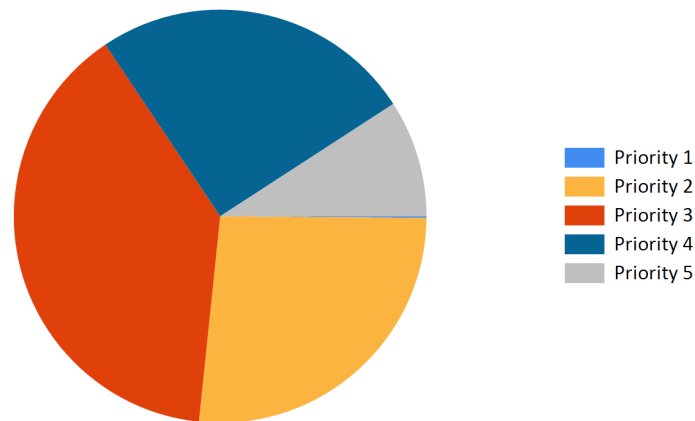


Figure 3: Current deficiencies by priority



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	\$2,214,355	\$0	\$0	\$0	\$0	\$0	\$0	\$2,214,355
Roofing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$4,109,246	\$0	\$0	\$0	\$0	\$0	\$0	\$4,109,246
Interior	\$5,260,099	\$0	\$0	\$0	\$234,455	\$110,481	\$344,936	\$5,605,035
Mechanical	\$2,750,126	\$0	\$0	\$0	\$0	\$360,629	\$360,629	\$3,110,755
Electrical	\$317,424	\$0	\$0	\$0	\$0	\$20,678	\$20,678	\$338,102
Plumbing	\$805,339	\$0	\$0	\$0	\$0	\$1,220,491	\$1,220,491	\$2,025,830
Fire and Life Safety	\$22,817	\$0	\$0	\$0	\$0	\$0	\$0	\$22,817
Technology	\$2,182,347	\$0	\$0	\$0	\$0	\$0	\$0	\$2,182,347
Conveyances	\$329,575	\$0	\$0	\$0	\$0	\$0	\$0	\$329,575
Specialties	\$960,783	\$0	\$0	\$0	\$0	\$0	\$0	\$960,783
Total	\$18,952,109	\$0	\$0	\$0	\$234,455	\$1,712,279	\$1,946,734	\$20,898,843

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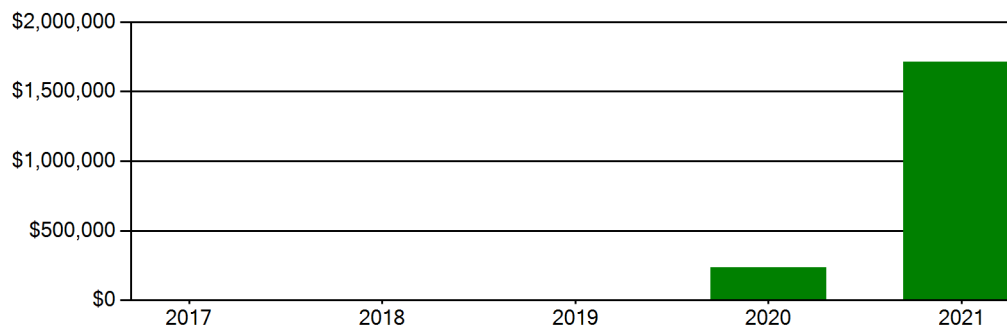
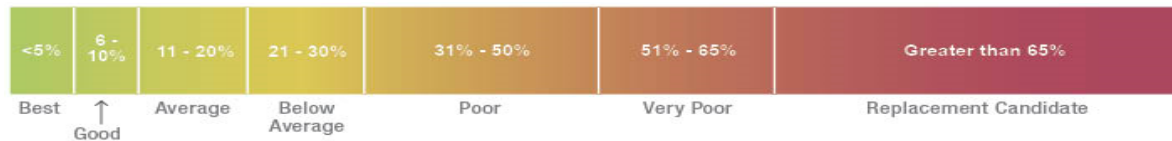


Figure 4: Life Cycle Capital Renewal Forecast



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 \$42,581,160. For planning purposes, the total 5-year need at the Charles E. Shea Senior High School is \$20,923,822 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Charles E. Shea Senior High School facility has a 5-year FCI of 49.08%.

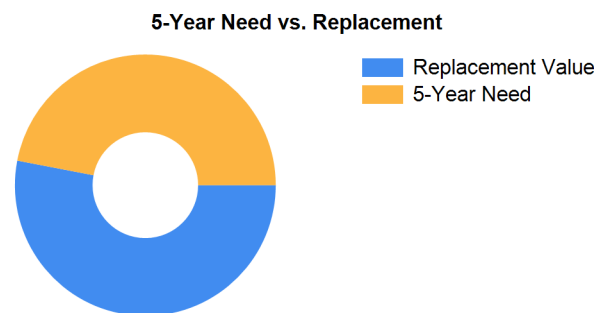


Figure 5: 5-Year FCI

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 577 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 Charles E. Shea Senior High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$447,120.



Summary of Findings

The Charles E. Shea Senior High School comprises 118,281 square feet and was constructed in 1940. Current deficiencies at this school total \$18,977,088. Five year capital renewal costs total \$1,946,734. The total identified need for the Charles E. Shea Senior High School (current deficiencies and 5-year capital renewal costs) is \$20,923,822. The 5-year FCI is 49.08%.

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
Charles E. Shea Senior High School Totals	118,281	1940	\$18,977,088	\$1,946,734	\$20,923,822	49.08%

**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
Concrete Walks Require Replacement Note: The pedestrian pavement is cracked and uneven.	Capital Renewal	2,500	SF	3	\$66,003	12606
Crosswalk Requires Repainting Note: Repaint crosswalks at corner of East Ave and Lyman St	Traffic	2	Ea.	3	\$1,965	16953
Crosswalk: Needs to be added Note: Add crosswalks at corner of East Ave and the northern most driveway of the school campus	Traffic	2	Ea.	3	\$1,965	16952
Traffic Signage Is Required Note: Install school zone signage	Traffic	2	Ea.	3	\$5,894	16954
Asphalt Paving Requires Replacement Note: The parking lot asphalt is alligatored and failing.	Capital Renewal	123	CAR	4	\$525,641	12605
Backstops Require Replacement Note: Backstops Require Replacement	Educational Adequacy	1	Ea.	4	\$36,840	28532
Concrete Site Wall Requires Repair Note: The concrete site walls around four sets of exterior stairs require repair.	Capital Renewal	4	Ea.	4	\$14,824	12642
Exterior Concrete Stairs Require Repair And Repainting Note: Allowance for exterior stairs per SBA.	Capital Renewal	1	SF	4	\$250,017	53468
Fencing Requires Replacement (8' Chain Link Fence)	Capital Renewal	290	LF	4	\$25,182	12604
PE / Recess Playfield is Missing and is Needed Note: PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	\$64,020	54909
School has insufficient # of tennis courts. Note: School has insufficient # of tennis courts.	Educational Adequacy	1	Ea.	5	\$210,145	29028
School has insufficient baseball fields. Note: School has insufficient baseball fields.	Educational Adequacy	1	Ea.	5	\$270,156	28321
School has insufficient football/soccer fields. Note: School has insufficient football/soccer fields.	Educational Adequacy	1	Ea.	5	\$122,798	28192
School has insufficient softball fields. Note: School has insufficient softball fields.	Educational Adequacy	1	Ea.	5	\$196,477	28365
School lacks a competition track. Note: School lacks a competition track.	Educational Adequacy	1	Ea.	5	\$422,426	28259
Sub Total for System		15	items		\$2,214,355	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Requires Replacement Note: The pole lights are not functional.	Capital Renewal	3	Ea.	3	\$29,973	12607
Sub Total for System		1	items		\$29,973	
Sub Total for School and Site Level		16	items		\$2,244,328	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Glass Wall Requires Replacement (Bldg SF) Note: The glass block wall is outdated and requires replacement.	Capital Renewal	2,191	SF	2	\$406,181	12654
The Aluminum Window Requires Replacement Note: 120 @ 3x8	Capital Renewal	2,880	SF	2	\$527,979	12611
The Aluminum Window Requires Replacement Note: 66 @ 4x8	Capital Renewal	2,112	SF	2	\$387,185	12612
The Aluminum Window Requires Replacement Note: 28 @ 4x5	Capital Renewal	560	SF	2	\$469,315	12613



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Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Aluminum Window Requires Replacement Note: 28 @ 4x5	Capital Renewal	864	SF	2	\$158,394	12614
The Aluminum Window Requires Replacement Note: 176 @ 2x2	Capital Renewal	704	SF	2	\$129,062	12615
The Aluminum Window Requires Replacement Note: 28 @ 3x4	Capital Renewal	336	SF	2	\$61,598	12616
The Aluminum Window Requires Replacement Note: 16 @ 3x6	Capital Renewal	288	SF	2	\$52,798	12617
Exterior Door Hardware Requires Replacement Note: The principal and custodian reported problems with the function of some exterior door hardware.	Capital Renewal	10	Ea.	3	\$35,007	12609
Exterior Metal Door Requires Repainting	Capital Renewal	25	Door	3	\$5,623	16976
The Brick Exterior Requires Repointing Note: The brick exterior requires repointing.	Capital Renewal	41,400	SF Wall	3	\$1,876,105	12635
Sub Total for System		11	items		\$4,109,246	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation Note: All classrooms	Acoustics	52	Ea.	3	\$495,392	19828
The Athletic Sport Flooring Requires Replacement Note: The gymnasium floor shows signs of extensive wear and tear.	Capital Renewal	5,914	SF	3	\$219,274	12634
The Carpet Flooring Requires Replacement Note: The carpet is stained and worn and should be replaced.	Capital Renewal	4,731	SF	3	\$111,506	12620
The Ceramic Tile Flooring Requires Replacement Note: The ceramic tile flooring is original to the building and should be replaced.	Capital Renewal	8,280	SF	3	\$240,878	12622
The Interior Door Hardware Requires Replacement Note: Door hardware is not ADA compliant.	Barrier to Accessibility	208	Door	3	\$706,938	12636
The Vinyl Composition Tile Requires Replacement Note: VCT flooring is chipped and worn with pieces missing.	Capital Renewal	40,381	SF	3	\$501,844	12621
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	750	SF	4	\$9,510	Rollup
Interior Ceramic Walls Require Repair Or Replacement Note: Ceramic wall tiles are aged, broken, and missing in several places.	Capital Renewal	11,828	SF	4	\$285,057	12655
Light Deterioration or Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	40,050	SF	4	\$1,237,451	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	459	Ea.	4	\$141,820	Rollup
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	1,040	LF	4	\$25,707	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	10,819	SF	4	\$111,427	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. AND NOT in children-accessible area (measurement unit - square feet)	Hazardous Material	500	SF	4	\$5,150	Rollup
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	29	Ea.	4	\$8,960	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	115	LF	4	\$2,843	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	8,000	SF	4	\$304,831	Rollup
Stair Treads Require Replacement Note: The stair tread is worn.	Capital Renewal	700	LF	4	\$31,722	12657
The Gypsum Board Ceilings Require Replacement Note: Plaster ceilings have water damage and pieces missing.	Capital Renewal	47,312	SF	4	\$584,732	12618
Vinyl Cove Base Requires Replacement Note: The rubber baseboards are missing or damaged.	Capital Renewal	300	LF	4	\$3,708	12633
Wall/ceiling materials - area < 9 sq. ft. AND in children-accessible area	Hazardous Material	129	SF	4	\$1,329	Rollup
Wall/ceiling materials - large areas (> 10 sq. ft.) of damage & area in active use - children	Hazardous Material	1,027	SF	4	\$10,577	Rollup
Wall/ceiling materials -large areas (> 10 sq. ft.) of damage & area in active use-adults only	Hazardous Material	10	SF	4	\$103	Rollup



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	\$2,282	Rollup
Interior Doors Require Repainting Note: Door paint is chipped and worn.	Capital Renewal	291	Door	5	\$21,279	12610
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	27,344	SF	5	\$195,727	Rollup
Wall/ceiling materials - area < 9 sq. ft. AND NOT in children-accessible area	Hazardous Material	5	SF	5	\$52	Rollup
Sub Total for System		26	items		\$5,260,099	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Unit Vent	Capital Renewal	55	Ea.	2	\$1,007,840	12653
The Air Handler HVAC Component Requires Replacement Note: Air handling units do not function correctly.	Capital Renewal	2	Ea.	2	\$93,463	12641
The Cast Iron Water Boiler Requires Replacement	Capital Renewal	1	Ea.	2	\$33,860	12646
The Fin Tube Water Radiant Heater Requires Replacement Note: The fin tube heaters are broken or rusted.	Capital Renewal	69	Ea.	2	\$125,216	12648
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life Note: Piping is rusted with evidence of leaks.	Capital Renewal	118,281	SF	2	\$987,710	12649
The Steam Condensate Receiver Requires Replacement	Capital Renewal	1	Ea.	2	\$381,071	12647
The Window AC Unit Component Requires Replacement Note: Window units are aged and damaged. Many are non-functional.	Capital Renewal	12	Ea.	2	\$43,405	12640
Exhaust Fan Ventilation Requires Replacement	Capital Renewal	4	Ea.	4	\$11,603	12625
Lab lacks an appropriate fume hood.	Educational Adequacy	3	Ea.	4	\$65,957	Rollup
Sub Total for System		9	items		\$2,750,126	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room last power shut-off valves for utilities	Educational Adequacy	1	Ea.	1	\$1,412	Rollup
The Electrical Disconnect Requires Replacement Note: The electrical disconnect is original to the building.	Capital Renewal	1	Ea.	2	\$1,986	12624
The Panelboard Requires Replacement Note: Panelboards are old and rusted.	Capital Renewal	6	Ea.	2	\$31,516	12643
The Panelboard Requires Replacement Note: Panelboards are old and rusted and missing dead fronts.	Capital Renewal	18	Ea.	2	\$113,085	12644
The Panelboard Requires Replacement Note: Fuse boxes should be replaced.	Capital Renewal	2	Ea.	2	\$13,595	12645
The Mounted Building Lighting Requires Replacement	Capital Renewal	13	Ea.	3	\$21,021	12623
Remove Abandoned Equipment Note: The water storage tank has been abandoned in place.	Capital Renewal	1	Ea.	5	\$3,598	12639
Room Has Insufficient Electrical Outlets	Educational Adequacy	204	Ea.	5	\$101,238	Rollup
Sub Total for System		8	items		\$287,451	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Sanitary Sewer Piping Requires Replacement	Capital Renewal	750	LF	3	\$126,495	12650
The Showers Plumbing Fixtures Require Replacement Note: Original shower fixtures should be replaced.	Capital Renewal	48	Ea.	3	\$395,490	12629
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	6	Ea.	3	\$8,639	12637
Water Storage Tank Requires Replacement Note: The water storage tanks are rusted.	Capital Renewal	2	Ea.	3	\$17,818	12656
Non-Refrigerated Drinking Fountain Requires Replacement Note: Original drinking fountains should be replaced.	Capital Renewal	2	Ea.	4	\$22,143	12630
The Classroom Lavatories Plumbing Fixtures Require Replacement Note: The classroom lavatories are aged, stained, and rusted.	Capital Renewal	17	Ea.	4	\$50,075	12608
The Custodial Mop Or Service Sink Requires Replacement Note: Mop sinks are aged, stained, and corroded.	Capital Renewal	6	Ea.	4	\$16,747	12632



Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Refrigerated Water Cooler Requires Replacement Note: The drinking fountains are damaged and in need of replacement.	Capital Renewal	3	Ea.	4	\$23,977	12638
The Restroom Lavatories Plumbing Fixtures Require Replacement Note: Sinks are original to the building and should be replaced.	Capital Renewal	2	Ea.	4	\$6,892	12626
The Restroom Lavatories Plumbing Fixtures Require Replacement Note: The restroom lavatories are aged and rusted.	Capital Renewal	24	Ea.	4	\$82,707	12627
Room lacks a drinking fountain.	Educational Adequacy	3	Ea.	5	\$3,308	Rollup
Room lacks a private shower area.	Educational Adequacy	1	Ea.	5	\$10,235	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	27	Ea.	5	\$40,813	Rollup
Sub Total for System		13	items		\$805,339	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks shut-off valves for utilities. (International Fuel Gas Code, Section 409.6)	Educational Adequacy	2	Ea.	1	\$22,817	Rollup
Sub Total for System		1	items		\$22,817	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	\$5,704	Rollup
Technology: Auditorium AV/Multimedia system is inadequate.	Technology	1	Room	3	\$360,473	13260
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	488	Ea.	3	\$251,301	13259
Technology: Instructional spaces do not have local sound reinforcement.	Technology	86	Ea.	3	\$442,866	13267
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	3	Ea.	3	\$17,303	13256
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$40,785	13253
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$40,785	13254
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	2	Ea.	3	\$10,299	13255
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$7,209	13250
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	\$54,380	13249
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	\$9,784	13251
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	96	Ea.	3	\$44,493	13258
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	288	Ea.	3	\$133,478	13263
Technology: Network system inadequate and/or near end of useful life	Technology	60	Ea.	3	\$308,977	13266
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	118,281	SF	3	\$219,276	13265
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	\$58,706	13264
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$8,239	13252
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	3	Ea.	3	\$15,449	13257



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	88	Ea.	3	\$145,013	13262
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	\$7,827	13261
Sub Total for System		20	items		\$2,182,347	

Conveyances

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Elevator Is Missing And Needed	Barrier to Accessibility	4	FLOOR	3	\$329,575	12631
Note: There is no elevator for a four story building.						
Sub Total for System		1	items		\$329,575	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	\$4,563	Rollup
Separate Student Kitchen Stations Are Required	Educational Adequacy	1	Ea.	4	\$3,727	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	1,486	Ea.	4	\$792,015	12651
Walk In Cooler/Freezer Is Required	Educational Adequacy	1	Ea.	4	\$90,316	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	5	Ea.	5	\$42,781	Rollup
The room lacks a washer and/or dryer.	Educational Adequacy	2	Ea.	5	\$27,380	Rollup
Sub Total for System		6	items		\$960,783	
Sub Total for Building 01 - Main Building		95	items		\$16,707,782	
Total for Campus		111	items		\$18,952,109	



Charles E. Shea Senior High School - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	35,484	SF	\$234,455	4
Resilient Flooring	Rubber Tile Flooring	5,914	SF	\$110,481	5
Sub Total for System		2	items	\$344,936	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exhaust Air	Ventilator/Relief Vent (4'x6')	17	Ea.	\$323,237	5
Air Distribution	Make-up Air Unit	1	Ea.	\$15,899	5
Decentralized Heating Equipment	Unit Heater Steam/HW (12 MBH)	9	Ea.	\$21,493	5
Sub Total for System		3	items	\$360,630	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)	15	Ea.	\$20,678	5
Sub Total for System		1	items	\$20,678	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Gas Piping System (BldgSF)	11,828	SF	\$256,092	5
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)	118,281	SF	\$951,675	5
Plumbing Fixtures	Lavatories	4	Ea.	\$12,724	5
Sub Total for System		3	items	\$1,220,492	
Sub Total for Building 01 - Main Building		9	items	\$1,946,735	
Total for: Charles E. Shea Senior High School		9	items	\$1,946,735	



Supporting Photos



Site Aerial



Art Room



School Signage



Exterior Brick



Facility Condition Assessment

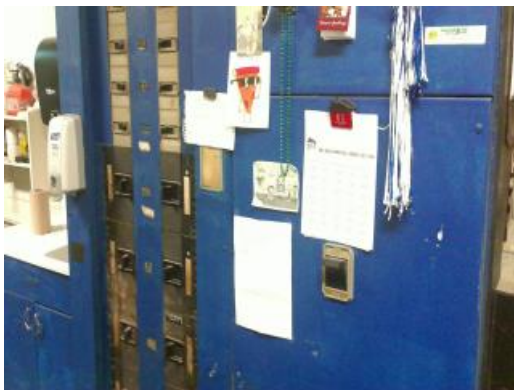
Pawtucket - Charles E. Shea Senior High School



Side Entry



Restroom Fixtures And Finishes



800 Amp Disconnect



Wall Exhaust Fan



Bradley Half Sink



Aged Restroom Lavatory



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School



Rusted Restroom Lavatory



Gymnasium



Science Lab



Damaged Fencing



Deteriorated Parking Lot Asphalt



Alligatored Asphalt



Worn Door Paint



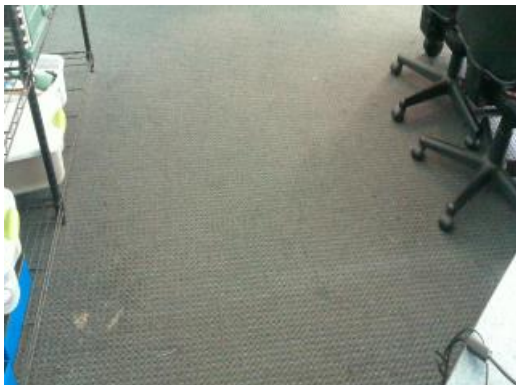
Aged Window



Damaged Ceiling



Damaged Ceiling



Worn Carpet

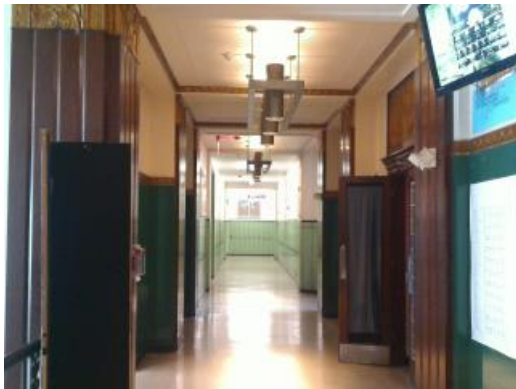


Chipped VCT



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School



Hallway Finishes



Missing Ceramic Tile



Broken And Missing Tile



Computer Lab



School Sign



Computer/Broadcast Lab



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School



Library



Building Mounted Fixtures



Exterior Finishes



Aged Shower Fixtures



Peeling Wall Paint



Typical Mop Sink



Original Drinking Fountain



Non-Functional Window Unit



Broken Drinking Fountain



Aged Panelboard



Rusted Panelboard



Domestic Hot Water Boiler



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School



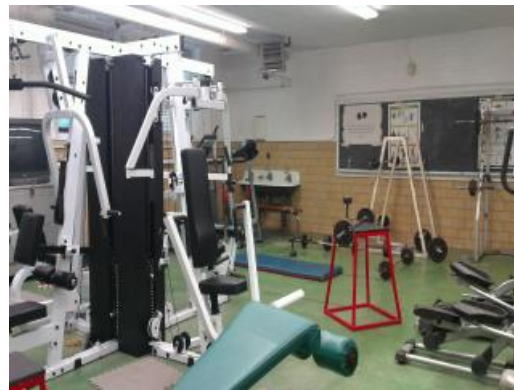
Fuse Box



Auditorium



Rusted Condensate Tank



Weight Room



Cafeteria



Broken Fin Tube Heater



Facility Condition Assessment

Pawtucket - Charles E. Shea Senior High School



Rusted Fin Tube Heater



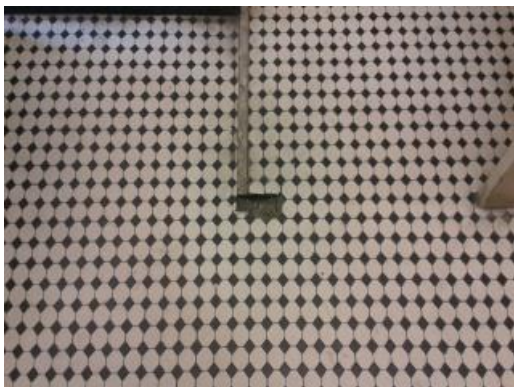
Rusted Piping



Non-Functional Unit Vent



Worn Gymnasium Floor



Original Ceramic Flooring



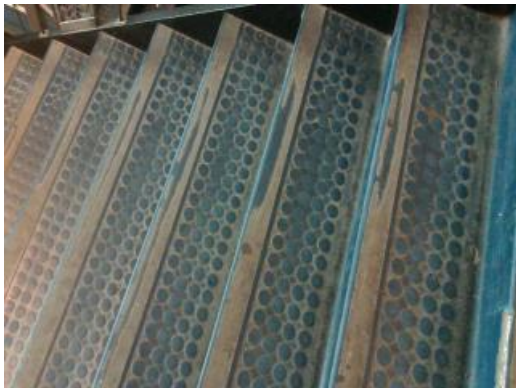
Aged Lockers



Cracked Concrete Wall



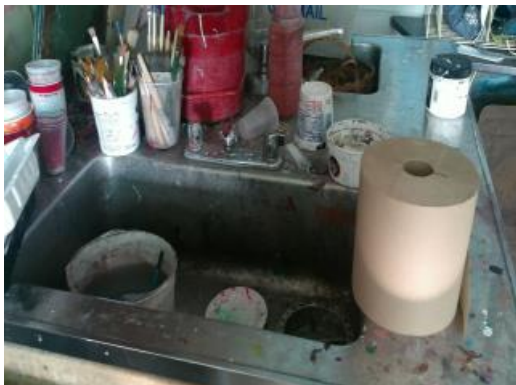
Damaged Tile



Worn Stair Tread



Non-Functional Pole Light



Classroom Lavatory