



Facility Condition Assessment

North Providence - Marieville Elementary School

June 2017

1135 Mineral Spring Avenue, North Providence, RI 02904





Introduction

Marieville Elementary School, located at 1135 Mineral Spring Avenue in North Providence, Rhode Island, was built in 1920. It comprises 28,210 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.

Marieville Elementary School serves grades KG - 5, has 19 instructional spaces, and has an enrollment of 232. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Marieville Elementary School is 300 with a resulting utilization of 77%.

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 Marieville Elementary School the 5-year need is \$8,314,252. 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.

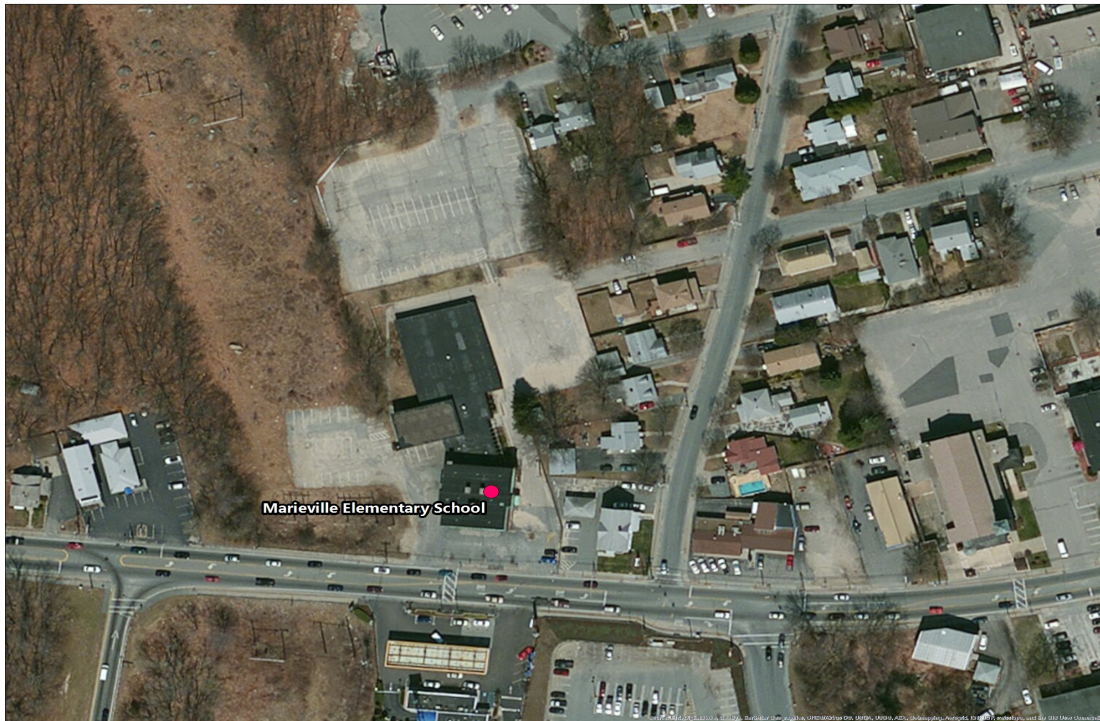


Figure 1: Aerial view of Marieville Elementary School



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 Mariveille Elementary School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
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Building Envelope

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

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

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

01 - Main Building:	Built-Up Roofing With Ballast
	Modified Bitumen 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
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Non-Painted Plaster/Gypsum Board Ceiling
	Wood Ceilings
	Ceramic Tile Wall
	Wood Wall Paneling
	CMU Wall
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Carpet



Mechanical

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

01 - Main Building:	1,275 MBH Cast Iron Water Boiler
	3,264 MBH Cast Iron Water Boiler
	Steam/Hot Water Heating Unit Vent
	Radiant Steam Heater
	DDC Heating System Controls
	Make-up Air Unit
	1 HP or Smaller Pump
	2-Pipe Hot Water Hydronic Distribution System
	Large Roof Exhaust Fan
	Small Roof Exhaust Fan
	Fire Sprinkler System

Plumbing

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

01 - Main Building:	Gas Piping System
	50 Gallon Gas Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals

Electrical

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

01 - Main Building:	600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/240 225A
	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.



Facility Condition Assessment

North Providence - Marieville Elementary 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	-	-	\$188,276	\$851,778	\$72,444	\$1,112,498	13.56 %
Roofing	-	\$759,335	-	-	-	\$759,335	9.26 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	-	\$7,589	-	-	\$7,589	0.09 %
Interior	-	-	\$378,580	\$1,264,211	-	\$1,642,791	20.02 %
Mechanical	-	\$2,408,137	\$59,471	\$127,440	\$10,295	\$2,605,343	31.76 %
Electrical	-	\$228,114	\$36,592	-	\$38,176	\$302,881	3.69 %
Plumbing	-	-	\$401,352	\$81,359	\$35,344	\$518,055	6.31 %
Fire and Life Safety	\$613,181	-	-	-	-	\$613,181	7.47 %
Technology	-	-	\$642,074	-	-	\$642,074	7.83 %
Conveyances	-	-	-	-	-	\$0	0.00 %
Specialties	-	-	-	-	-	\$0	0.00 %
Total	\$613,181	\$3,395,586	\$1,713,935	\$2,324,787	\$156,259	\$8,203,749	

*Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Mechanical	-	\$2,605,343
Interior	-	\$1,642,791
Site	-	\$1,112,498

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

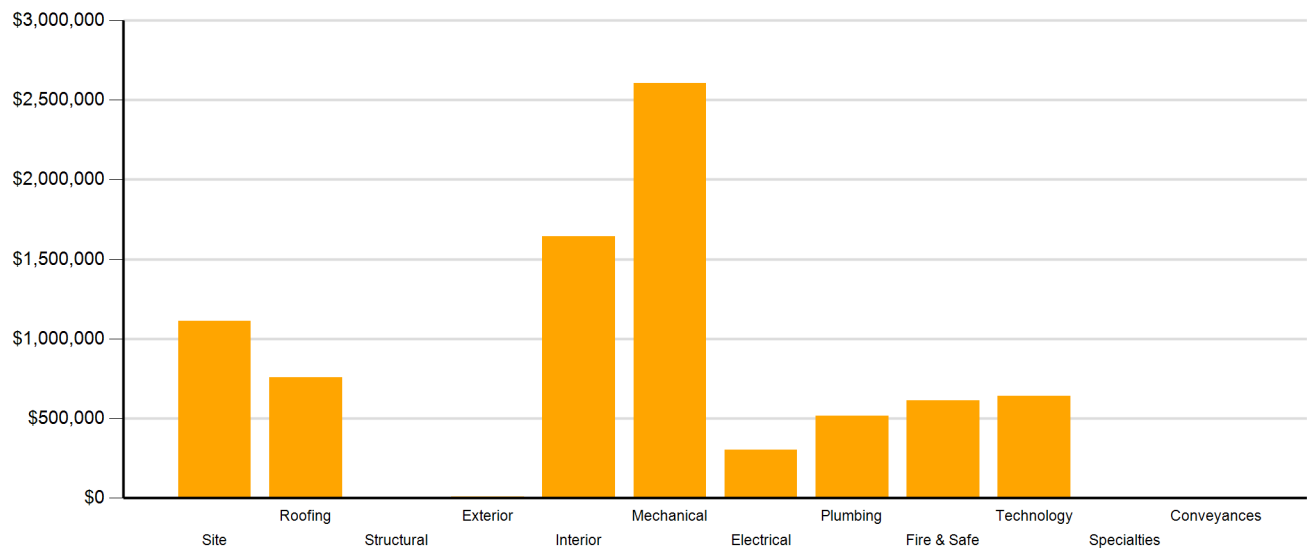


Figure 2: System Deficiencies



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	-	-	\$146,029	-	-	\$146,029
Barrier to Accessibility	-	-	\$88,841	-	-	\$88,841
Capital Renewal	\$588,162	\$3,395,586	\$695,519	\$1,322,413	\$10,295	\$6,011,974
Code Compliance	-	-	-	-	-	\$0
Educational Adequacy	-	-	\$5,774	\$50,787	\$145,964	\$202,525
Functional Deficiency	\$25,019	-	\$42,037	-	-	\$67,056
Hazardous Material	-	-	-	\$951,587	-	\$951,587
Technology	-	-	\$636,301	-	-	\$636,301
Traffic	-	-	\$99,436	-	-	\$99,436
Total	\$613,181	\$3,395,586	\$1,713,935	\$2,324,787	\$156,259	\$8,203,749

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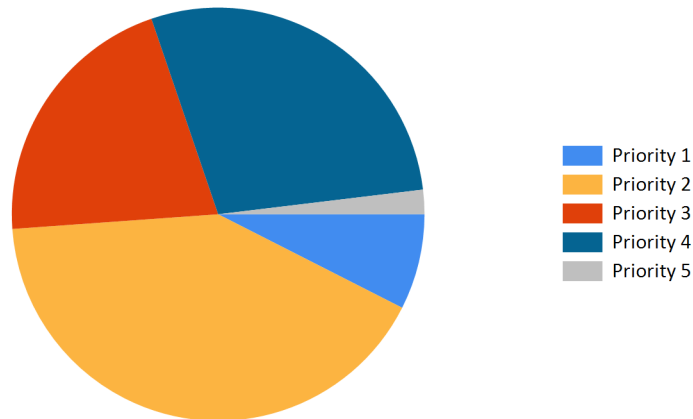


Figure 3: Current deficiencies by priority



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	\$1,112,498	\$0	\$0	\$0	\$0	\$0	\$0	\$1,112,498
Roofing	\$759,335	\$0	\$0	\$0	\$0	\$0	\$0	\$759,335
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$7,589	\$0	\$0	\$0	\$0	\$0	\$0	\$7,589
Interior	\$1,642,791	\$0	\$0	\$84,902	\$0	\$0	\$84,902	\$1,727,693
Mechanical	\$2,605,343	\$0	\$0	\$0	\$0	\$0	\$0	\$2,605,343
Electrical	\$302,881	\$0	\$0	\$0	\$0	\$0	\$0	\$302,881
Plumbing	\$518,055	\$0	\$0	\$22,402	\$0	\$3,199	\$25,601	\$543,656
Fire and Life Safety	\$613,181	\$0	\$0	\$0	\$0	\$0	\$0	\$613,181
Technology	\$642,074	\$0	\$0	\$0	\$0	\$0	\$0	\$642,074
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$8,203,749	\$0	\$0	\$107,304	\$0	\$3,199	\$110,503	\$8,314,252

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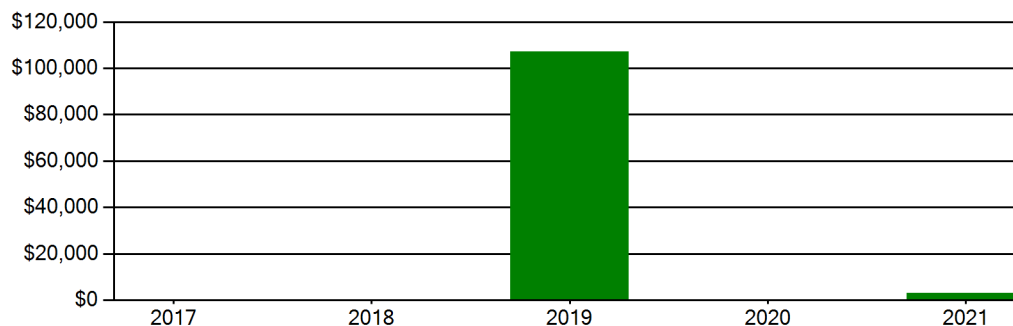
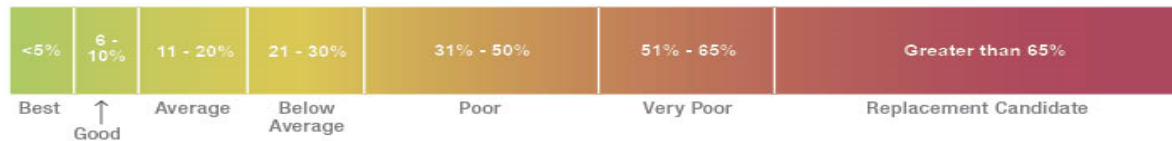


Figure 4: Life Cycle Capital Renewal Forecast



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 \$9,873,500. For planning purposes, the total 5-year need at the Marieville Elementary School is \$8,314,252 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Marieville Elementary School facility has a 5-year FCI of 84.21%.

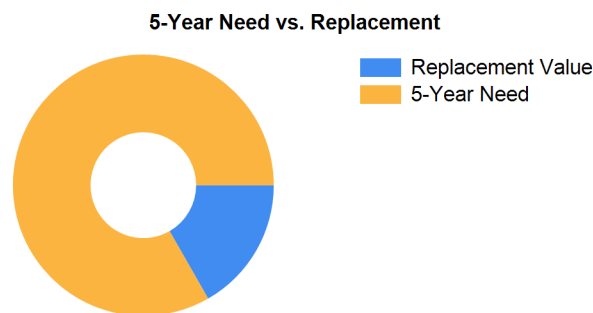


Figure 5: 5-Year FCI

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 157 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 Marieville Elementary School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$478,548.



Summary of Findings

The Marieville Elementary School comprises 28,210 square feet and was constructed in 1920. Current deficiencies at this school total \$8,203,749. Five year capital renewal costs total \$110,503. The total identified need for the Marieville Elementary School (current deficiencies and 5-year capital renewal costs) is \$8,314,252. The 5-year FCI is 84.21%.

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
Marieville Elementary School Totals	28,210	1920	\$8,203,749	\$110,503	\$8,314,252	84.21%

**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
Install New Playground Equipment	Barrier to Accessibility	1	SF	3	\$88,841	54900
Note: Install New Playground Equipment						
Traffic Signage Is Required	Traffic	2	Ea.	3	\$99,436	4398
Note: Add flashing school zone signs on Mineral Springs Avenue (beacon or LED)						
Asphalt Paving Requires Replacement	Capital Renewal	115	CAR	4	\$497,441	347
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	\$37,288	28515
Note: Backstops Require Replacement						
Fencing Requires Replacement (8' Chain Link Fence)	Capital Renewal	1,370	LF	4	\$120,415	352
Fencing Requires Replacement (Ornamental Fence)	Capital Renewal	140	LF	4	\$196,634	350
Note: Remove existing stone barrier						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	\$7,644	28761
Note: Exterior Basketball Goals are Required						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	\$64,800	54901
Note: PE / Recess Playfield is Missing and is Needed						
Sub Total for System		8	items		\$1,112,498	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Requires Replacement	Capital Renewal	2	Ea.	3	\$20,225	342
Sub Total for System		1	items		\$20,225	
Sub Total for School and Site Level		9	items		\$1,132,724	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Built-up Roofing With Aggregate Ballast Requires Replacement	Capital Renewal	1,800	SF	2	\$75,058	355
Note: Roofing has not been replaced in several decades and leaks throughout the building.						
The Modified Roof Covering Requires Replacement	Capital Renewal	16,410	SF	2	\$684,277	365
Note: Roof has not been replaced in several decades and leaks throughout facility.						
Sub Total for System		2	items		\$759,335	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Handrail Requires Replacement	Capital Renewal	40	LF	3	\$7,589	372
Note: Railing on stairway from upper parking level to paved play area is rusted & worn						
Sub Total for System		1	items		\$7,589	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation	Acoustics	16	Ea.	3	\$146,029	4702
Note: All classroom						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	23,000	SF	3	\$227,780	344
Note: Ceiling tile is in need of replacement due to staining and potential mold/mildew issues						
The Carpet Flooring Requires Replacement	Capital Renewal	200	SF	3	\$4,771	314
Note: Carpet in copy room is beyond its useful lifespan and should be replaced						
9x9 Asbestos Tile Present and In Active Use, Greater than 25 Percent has Significant Deterioration	Hazardous Material	24,590	SF	4	\$769,030	Rollup
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	120	LF	4	\$2,502	Rollup
Ceiling Grid Requires Replacement	Capital Renewal	23,000	SF	4	\$299,125	394
Note: Aged, warping, & showing signs of potential leakage						
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	4	Ea.	4	\$1,251	Rollup



Facility Condition Assessment

North Providence - Marieville Elementary School

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
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	740	LF	4	\$18,514	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	1,400	SF	4	\$14,595	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas (> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - square feet)	Hazardous Material	8,900	SF	4	\$92,780	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas(> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - each)	Hazardous Material	70	Ea.	4	\$21,892	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas(> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - linear feet)	Hazardous Material	1,240	LF	4	\$31,024	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	350	SF	4	\$13,499	Rollup
Sub Total for System		13 items			\$1,642,791	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Gas Piping Requires Replacement (SF Basis)	Capital Renewal	28,210	SF	2	\$669,745	527
Replace Unit Vent	Capital Renewal	56	Ea.	2	\$1,038,667	332
The Boiler HVAC Component Requires Replacement	Capital Renewal	1	Ea.	2	\$81,531	265
The Cast Iron Water Boiler Requires Replacement	Capital Renewal	1	Ea.	2	\$198,482	290
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	28,210	SF	2	\$238,439	322
The Steam/Hot Water Radiant Heater Requires Replacement	Capital Renewal	32	Ea.	2	\$181,273	333
The Large Diameter Exhausts/Hoods Require Replacement	Functional Deficiency	2	Ea.	3	\$30,469	281
The Make Up Air Equipment Requires Replacement	Capital Renewal	1	Ea.	3	\$17,434	247
The Small Diameter Exhausts/Hoods Require Replacement	Functional Deficiency	4	Ea.	3	\$11,567	278
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	28,210	SF	4	\$127,440	1911
Remove Abandoned Equipment	Capital Renewal	1	Ea.	5	\$3,432	310
Note: Remove abandoned air compressor.						
Remove Abandoned Equipment	Capital Renewal	2	Ea.	5	\$6,864	397
Note: 2 500 gallon fuel oil tanks are no longer in use and need to be drained and removed.						
Sub Total for System		12 items			\$2,605,343	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Switchgear Is Needed Or Requires Replacement	Capital Renewal	1	Ea.	2	\$21,141	309
The Electrical Disconnect Requires Replacement	Capital Renewal	1	Ea.	2	\$2,010	307
The Lighting Fixtures Require Replacement	Capital Renewal	28,210	SF	2	\$183,800	528
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	\$10,529	300
The Panelboard Requires Replacement	Capital Renewal	2	Ea.	2	\$10,633	341
The Mounted Building Lighting Requires Replacement	Capital Renewal	10	Ea.	3	\$16,367	346
Room Has Insufficient Electrical Outlets	Educational Adequacy	76	Ea.	5	\$38,176	Rollup
Sub Total for System		7 items			\$282,656	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Roof Drainage Piping Requires Repair	Capital Renewal	30	LF	3	\$6,943	370
Note: PVC pipes providing roof drainage cause water pooling & icy conditions in cold weather						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	28,210	SF	3	\$248,885	329
The Sanitary Sewer Piping Requires Replacement	Capital Renewal	750	LF	3	\$128,036	330
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	12	Ea.	3	\$17,488	337
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	1	Ea.	4	\$11,207	268
The Classroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	13	Ea.	4	\$38,759	336
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	9	Ea.	4	\$31,393	340
Room lacks a drinking fountain.	Educational Adequacy	16	Ea.	5	\$17,860	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	16	Ea.	5	\$17,485	Rollup
Sub Total for System		9 items			\$518,055	



Facility Condition Assessment

North Providence - Marieville Elementary School

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Escape Requires Replacement	Functional Deficiency	2	Ea.	1	\$25,019	368
Note: Fire escapes do not all reach ground level and are not properly secured within classrooms						
Fire Sprinkler System Requires Replacement (SF Basis) per NFPA 13	Capital Renewal	28,210	SF	1	\$588,162	321
	Sub Total for System	2	items		\$613,181	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	\$5,774	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	48	Ea.	3	\$25,019	3684
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	48	Ea.	3	\$25,019	3695
Technology: Campus wireless infrastructure meets standards but does not cover all areas of campus.	Technology	5	Ea.	3	\$7,297	3686
Technology: Instructional spaces do not have local sound reinforcement.	Technology	17	Ea.	3	\$88,610	3699
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	\$5,838	3690
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	\$49,622	3689
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	\$5,212	3693
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$7,297	3683
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	\$46,703	3679
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	48	Ea.	3	\$22,517	3681
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	36	Ea.	3	\$16,888	3682
Technology: Network system inadequate and/or near end of useful life	Technology	20	Ea.	3	\$104,247	3687
Technology: Network system inadequate and/or near end of useful life	Technology	1	Ea.	3	\$8,340	3688
Technology: Number of current, up to date, network switch ports are insufficient to support campus technology.	Technology	92	Ea.	3	\$47,954	3685
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	28,210	SF	3	\$52,935	3697
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	\$59,421	3694
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$8,340	3680
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$5,212	3691
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	1	Ea.	3	\$6,880	3692
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	21	Ea.	3	\$35,027	3698
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	\$7,923	3696
	Sub Total for System	22	items		\$642,074	
	Sub Total for Building 01 - Main Building	68	items		\$7,071,025	
	Total for Campus	77	items		\$8,203,749	



Marieville Elementary 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)	12,695	SF	\$84,902	3
Note: Gypsum board wall panels in 1960 addition					
Sub Total for System			1 items	\$84,902	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain	3	Ea.	\$22,402	3
Domestic Water Equipment	Water Heater - Gas - 50 gallon	1	Ea.	\$3,199	5
Sub Total for System			2 items	\$25,601	
Sub Total for Building 01 - Main Building			3 items	\$110,503	
Total for: Marieville Elementary School			3 items	\$110,503	



Supporting Photos



Site Aerial



Hot Water Radiator



Typical Classroom In Addition



Building Entrance



Make Up Air Unit



Stone Fencing



Cracked Asphalt Paving



School Signage And Proximity To Highway



Roof Exhaust



Rusted & Worn Stairwell Railing



Facility Condition Assessment

North Providence - Marieville Elementary School



Restroom Sink



Mineral Spring Avenue Exterior Facade



VCT Tile Damage In Faculty Restroom



Main Distribution Panel



Addition Girls Restroom



Chain Link Fence



Roof Ponding - Gym Area



Damaged Tile Wall In Boys Restroom



Small Roof Exhaust And Roof Ponding



Hot Water Boiler



Addition Boys Restroom



Ceiling Grid And Tiles



Facility Condition Assessment

North Providence - Marieville Elementary School



Service Disconnect



Original Building Girls Restroom



Water Fountain



Stained Ceiling Tile



Pole Mounted Light



Classrooms Exterior



Steam Radiator



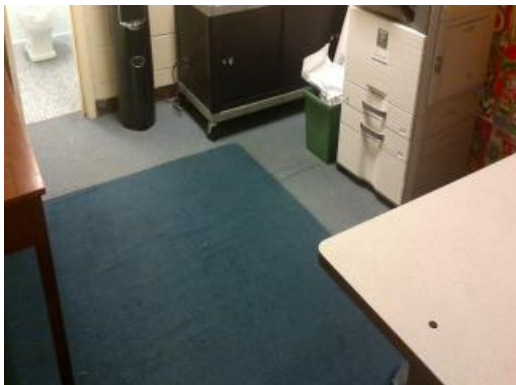
Building Mounted Light



Original Building Boys Restroom



Library



Carpet In Copy Room



100A Panel Board



225A Panel Board



Ponding On Roof



Gymnasium



School Elevation and Parking



Fire Escape From Second Level



Original Building Typical Classroom



Classroom Sink



Boiler