Facility Condition Assessment

Central Falls - Veterans Memorial Elementary | *June 2017*

150 Fuller Avenue, Central Falls, RI 02863

Introduction

Veterans Memorial Elementary, located at 150 Fuller Avenue in Central Falls, Rhode Island, was built in 1990. It comprises 53,310 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.

Veterans Memorial Elementary serves grades 1 - 4, has 38 instructional spaces, and has an enrollment of 491. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Veterans Memorial Elementary is 584 with a resulting utilization of 84%.

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 Veterans Memorial Elementary the 5-year need is $6,064,999. 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 Veterans Memorial Elementary

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 Veterans Memorial Elementary campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

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

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

01 - Main Building:	Metal Steep Slope Roofing
	EPDM Roofing
	Aluminum Canopy Roofing

Interior

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

01 - Main Building:	Steel Interior Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Non-Painted Plaster/Gypsum Board Ceiling
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Quarry 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:	400 MBH Cast Iron Water Boiler

01 - Main Building:	Radiant Water Heater
	DDC Heating System Controls
	1 Ton Ductless Split System
	Make-up Air Unit
	1 HP or Smaller Pump
	2-Pipe Hot Water Hydronic Distribution System
	5 Ton DX Gas Roof Top Unit
	4'x6' Ventilator/Relief Vent
	Roof Exhaust Fan

Plumbing

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

01 - Main Building:	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:

01 - Main Building:	30 KVA Transformer
	75 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 400+ Amps
	Electrical Disconnect
	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.

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

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$290,913	$35,651	$72,755	$399,319	9.22 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$1,188	-	$2,179	-	$3,367	0.08 %
Interior	-	-	$1,044,689	$467,297	$2,266	$1,514,252	34.97 %
Mechanical	-	-	$112,349	$228,780	-	$341,129	7.88 %
Electrical	-	$329,959	$29,006	-	$29,575	$388,540	8.97 %
Plumbing	-	-	$12,460	$302,084	$26,455	$340,999	7.88 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$1,333,107	-	-	$1,333,107	30.79 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$9,065	-	-	$9,065	0.21 %
Total	$0	$331,147	$2,831,588	$1,035,991	$131,051	$4,329,778	

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

The building systems with the most need include:

Interior	-	$1,514,252
Technology	-	$1,333,107
Site	-	$399,319

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

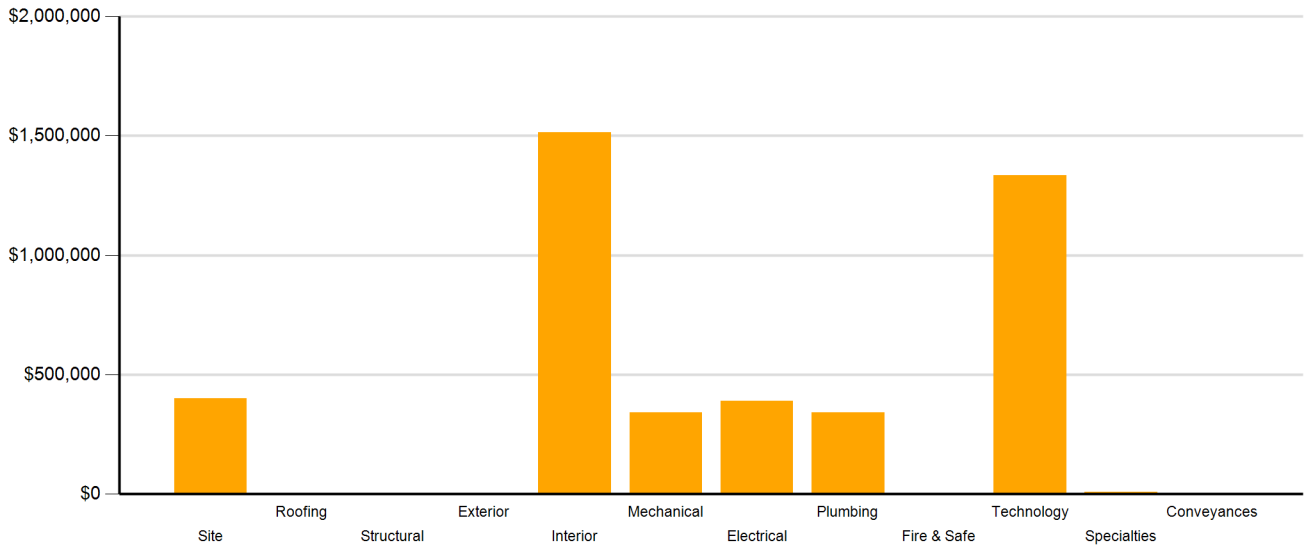


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insolation, 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

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$242,764	$56,180	-	$298,945
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$331,147	$955,739	$898,586	$1,426	$2,186,898
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$167,707	$53,061	$129,625	$350,393
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$28,164	-	$28,164
Technology	-	-	$1,174,465	-	-	$1,174,465
Traffic	-	-	$290,913	-	-	$290,913
Total	$0	$331,147	$2,831,588	$1,035,991	$131,051	$4,329,778

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

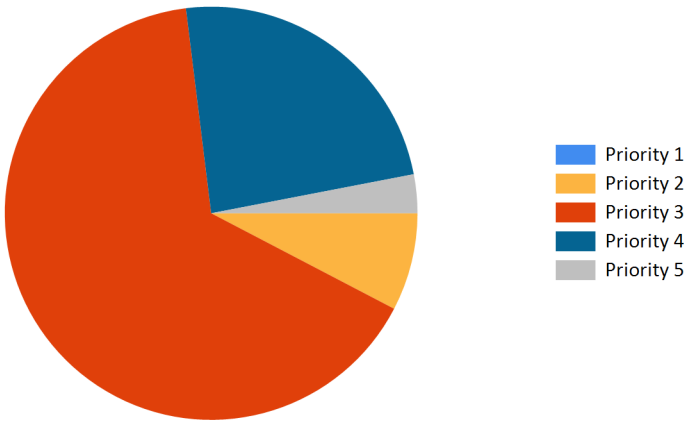


Figure 3: Current deficiencies by priority

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

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$399,319	$0	$0	$0	$0	$0	$0	$399,319
Roofing	$0	$0	$0	$547,623	$0	$0	$547,623	$547,623
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$3,367	$0	$0	$0	$0	$0	$0	$3,367
Interior	$1,514,252	$0	$26,107	$338,362	$0	$249,905	$614,374	$2,128,627
Mechanical	$341,129	$0	$0	$0	$0	$320,769	$320,769	$661,898
Electrical	$388,540	$0	$0	$0	$0	$86,089	$86,089	$474,629
Plumbing	$340,999	$0	$0	$0	$0	$5,845	$5,845	$346,844
Fire and Life Safety	$0	$0	$0	$0	$0	$156,252	$156,252	$156,252
Technology	$1,333,107	$0	$0	$0	$0	$0	$0	$1,333,107
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$9,065	$0	$0	$0	$0	$0	$0	$9,065
Total	**$4,329,778**	**$0**	**$26,107**	**$885,985**	**$0**	**$818,860**	**$1,730,952**	**$6,060,730**

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

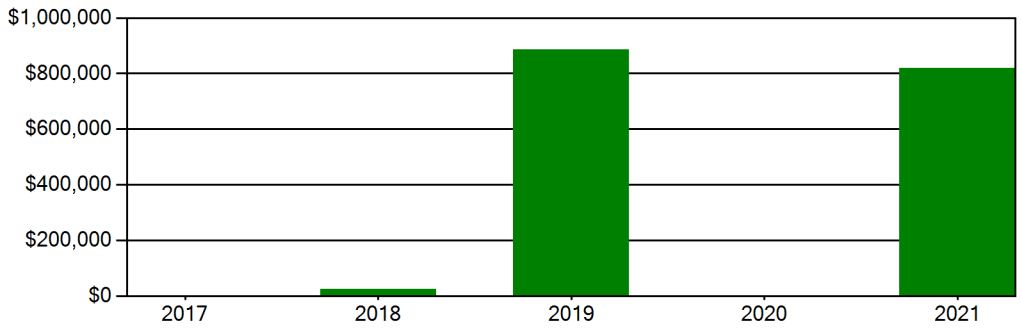
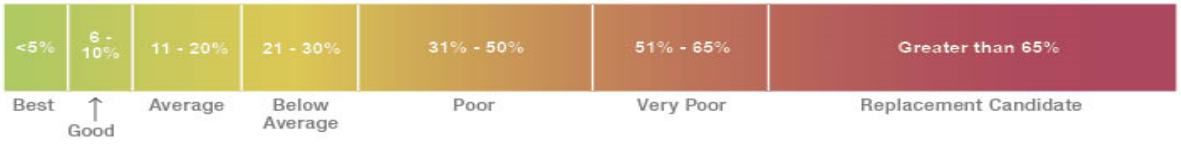


Figure 4: Life Cycle Capital Renewal Forecast

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 $18,658,500. For planning purposes, the total 5-year need at the Veterans Memorial Elementary is $6,064,999 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Veterans Memorial Elementary facility has a 5-year FCI of 32.48%.

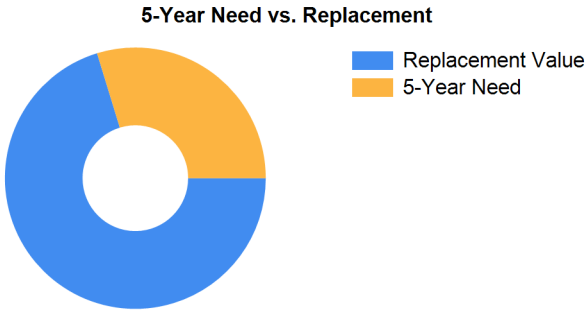


Figure 5: 5-Year FCI

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 296 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 Veterans Memorial Elementary cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $0.

Summary of Findings

The Veterans Memorial Elementary comprises 53,310 square feet and was constructed in 1990. Current deficiencies at this school total $4,334,047. Five year capital renewal costs total $1,730,952. The total identified need for the Veterans Memorial Elementary (current deficiencies and 5-year capital renewal costs) is $6,064,999. The 5-year FCI is 32.48%.

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
Veterans Memorial Elementary Totals	53,310	1990	$4,334,047	$1,730,952	$6,064,999	32.48%

**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 Bus Drop Or Parent Drop Area	Traffic	1	Ea.	3	$190,139	4448
Note: Add designated parent drop off/pick up area (possibly in alley way behind school)						
Traffic Signage Is Required	Traffic	2	Ea.	3	$5,704	4446
Note: Add stop signs at intersection of Fuller Avenue and Hedley Avenue to both Fuller Avenue approaches						
Traffic Signage Is Required	Traffic	2	Ea.	3	$95,070	4447
Note: Add school zone signs with speed limitations on Cowden Street (2) and Hedley Avenue (2)						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$35,651	28421
Note: Backstops Require Replacement						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$7,308	28699
Note: Exterior Basketball Goals are Required						
Paving Requires Restriping	Capital Renewal	20	CAR	5	$1,426	994
Note: Curbs need repainting.						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$64,020	54867
Note: PE / Recess Playfield is Missing and is Needed						
	Sub Total for System	**7**	**items**		**$399,319**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Requires Replacement	Capital Renewal	3	Ea.	3	$29,006	981
	Sub Total for System	**1**	**items**		**$29,006**	
	Sub Total for School and Site Level	**8**	**items**		**$428,325**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Brick Exterior Requires Replacement (Bldg SF)	Capital Renewal	25	SF	2	$1,188	995
Note: Damaged bricks need to be replaced.						
Handrail Requires Repainting	Capital Renewal	200	LF	4	$2,179	993
	Sub Total for System	**2**	**items**		**$3,367**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation	Acoustics	28	Ea.	3	$242,764	4743
Note: All classroom						
Interior CMU Walls Require Repair	Capital Renewal	5,000	SF	3	$189,149	984
Note: Cracking in CMU should be repaired.						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	15,000	SF	3	$141,119	991
Note: Tiles damaged by leaks require replacement throughout.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	39,470	SF	3	$471,656	986
Metal Interior Doors Require Replacement	Capital Renewal	80	Door	4	$356,828	977
Note: Approximately 75% of the interior metal doors require replacement.						
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	140	SF	4	$1,386	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	2,200	SF	4	$21,787	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	210	LF	4	$4,991	Rollup
Room Is Excessively Reverberant	Acoustics	6,200	SF	4	$56,180	4744
Note: Gym						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	460	SF	4	$17,410	Rollup
Stair Treads Require Replacement	Capital Renewal	200	LF	4	$8,715	989

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$2,266	Rollup
	Sub Total for System	**12**	**items**		**$1,514,252**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The 4 X 6 Exhausts/Ventilators Require Replacement	Capital Renewal	4	Ea.	3	$79,225	992
Note: Relief vent in roof does not work. Gym needs to have better circulation.						
The Make Up Air Equipment Requires Replacement	Capital Renewal	2	Ea.	3	$33,124	987
Note: Rusted units						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	53,310	SF	4	$228,780	1449
Note: Digital control system is being used to control the building. Heating system is uneven and doesn't meet demands of all the rooms. Some sections do not receive any heat and use space heaters as supplements.						
	Sub Total for System	**3**	**items**		**$341,129**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	53,310	SF	2	$329,959	1851
Room Has Insufficient Electrical Outlets	Educational Adequacy	60	Ea.	5	$29,575	Rollup
	Sub Total for System	**2**	**items**		**$359,534**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	9	Ea.	3	$12,460	1006
Note: Constantly requiring repairs.						
The Classroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	36	Ea.	4	$101,962	1849
Note: Constantly requiring repairs.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	8	Ea.	4	$21,470	1003
Note: Constantly requiring repairs.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	6	Ea.	4	$46,109	1007
Note: Fountains do not always work or get stuck when the button for water is pressed.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	40	Ea.	4	$132,543	1850
Note: Constantly requiring repairs.						
Room lacks a drinking fountain.	Educational Adequacy	13	Ea.	5	$14,240	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	12	Ea.	5	$12,215	Rollup
	Sub Total for System	**7**	**items**		**$340,999**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	28	Ea.	3	$158,642	Rollup
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	1	Ea.	3	$9,903	4284
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	29	Ea.	3	$603,098	4276
Technology: Gymnasium sound system is nonexistent, inadequate, or near end of useful life.	Technology	1	Ea.	3	$9,507	4280
Technology: Instructional spaces do not have local sound reinforcement.	Technology	29	Ea.	3	$143,595	4274
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,932	4272
Technology: Main Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$22,579	4271
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	48	Ea.	3	$21,391	4273
Technology: Network system inadequate and/or near end of useful life	Technology	3	Ea.	3	$23,767	4278

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Network system inadequate and/or near end of useful life	Technology	18	Ea.	3	$89,128	4279
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	53,310	SF	3	$95,028	4281
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$56,448	4275
Technology: Special Space AV/Multimedia systems are in need of minor improvements.	Technology	2	Room	3	$39,612	4277
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	29	Ea.	3	$45,950	4283
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,526	4282
	Sub Total for System	**15**	**items**		**$1,333,107**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	2	Ea.	3	$9,065	Rollup
	Sub Total for System	**1**	**items**		**$9,065**	
	Sub Total for Building 01 - Main Building	**42**	**items**		**$3,901,453**	
	Total for Campus	**50**	**items**		**$4,329,778**	

Veterans Memorial Elementary - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Roofing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Low-Slope Roofing	EPDM - Rubber Roofing Material		43,310	SF	$547,623	3
		Sub Total for System	**1**	**items**	**$547,623**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet		1,200	SF	$26,107	2
Wall Painting and Coating	Painting/Staining (Bldg SF)		51,210	SF	$338,362	3
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles		27,670	SF	$249,905	5
		Sub Total for System	**3**	**items**	**$614,374**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Heat Generation	Boiler - Cast Iron - Water (400 MBH)		8	Ea.	$250,041	5
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)		4	Ea.	$30,514	5
HVAC Air Distribution	Roof Top Unit - DX Gas (5 Ton)		1	Ea.	$19,398	5
Exhaust Air	Roof Exhaust Fan		4	Ea.	$20,816	5
		Sub Total for System	**4**	**items**	**$320,769**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Power Distribution	Panelboard - 120/208 400A		1	Ea.	$6,275	5
Power Distribution	Panelboard - 400+ Amps		1	Ea.	$17,788	5
Note:	600 amp, 120/208					
Electrical Service	Transformer (30 KVA)		2	Ea.	$14,063	5
Power Distribution	Panelboard - 120/208 100A		3	Ea.	$14,546	5
Wiring Devices	Electrical Disconnect		3	Ea.	$5,499	5
Electrical Service	Transformer (75 KVA)		1	Ea.	$10,520	5
Power Distribution	Panelboard - 120/208 225A		3	Ea.	$17,398	5
		Sub Total for System	**7**	**items**	**$86,088**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 75 Gallons		1	Ea.	$5,845	5
		Sub Total for System	**1**	**items**	**$5,845**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		53,310	SF	$156,252	5
		Sub Total for System	**1**	**items**	**$156,252**	
		Sub Total for Building 01 - Main Building	**17**	**items**	**$1,730,951**	
		Total for: Veterans Memorial Elementary	**17**	**items**	**$1,730,951**	

Supporting Photos

Site Aerial

Playground

Faded Paint On Curbs

Exterior Finishes

Non-Functional Classroom Lavatory

Typical Classroom

Library

Entrance

Restroom Finishes

Marquee


Gymnasium/Cafeteria


Restroom Lavatories


Worn Metal Door


VCT Cracked


Rusted Make Up Air Unit


Damaged And Missing VCT


Gym Vent


Floor Drain in Kitchen


Typical Urinal Fixtures


Paint Chipping On Handrail


Damaged Bricks

Cracking In CMU


Broken Water Fountain


Traction Strips Require Replacement


Water Damaged Ceiling Tile


Water Damaged Ceiling Tile


Main Entrance