Facility Condition Assessment

Providence - George J. West Elementary School | *June 2017*

145 Beaufort Street, Providence, RI 02908

Introduction

George J. West Elementary School, located at 145 Beaufort Street in Providence, Rhode Island, was built in 1916. It comprises 130,000 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

George J. West Elementary School serves grades KG - 5, has 49 instructional spaces, and has an enrollment of 832. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for George J. West Elementary School is 728 with a resulting utilization of 114%.

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 George J. West Elementary School the 5-year need is $17,598,670. 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.

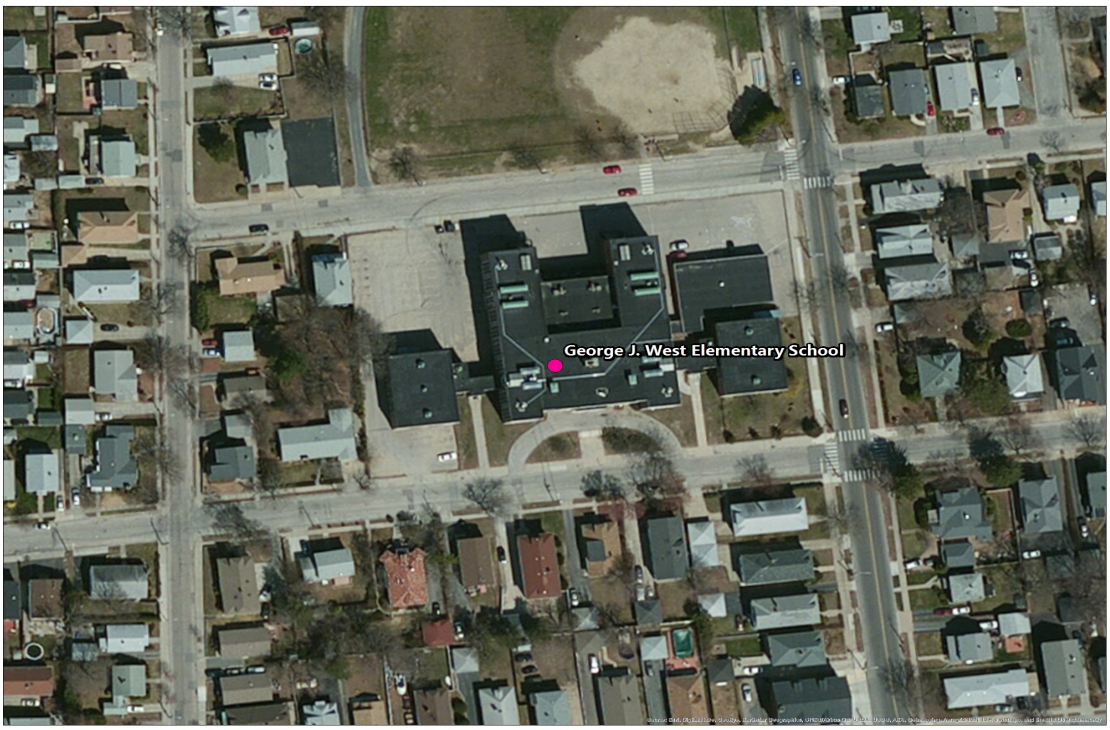

Figure 1: Aerial view of George J. West Elementary School

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 George J. West Elementary School 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:	EPDM Roofing
	Steel Canopy 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
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Adhered Acoustical Ceiling Tiles
	Painted Ceilings
	Ceramic Tile Wall
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Epoxy Coated Flooring

Mechanical

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

01 - Main Building:	8,500 MBH Cast Iron Boiler

01 - Main Building:	Steam Condensate Receiver, Tank and Pump
	36 MBH Steam Unit Heater
	Radiant Steam Heater
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	DDC Heating System Controls
	1/2 Ton Fan Coil - Water Cool/Water Heat
	Window Units
	2-Pipe Steam Hydronic Distribution System
	1 HP or Smaller Pump
	5 HP Pump
	2,000 CFM Interior AHU
	Ductwork
	Large Roof Exhaust Fan
	Small Roof Exhaust Fan
	Wall Exhaust Fan
	Fire Sprinkler System

Plumbing

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

01 - Main Building:	250 Gallon Water Storage Tank
	2" Backflow Preventers
	4" Backflow Preventers
	Gas Piping System
	200 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:	50 kW Emergency Generator
	800 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Light Fixtures
	Building Mounted Lighting Fixtures

Facility Deficiency Priority Levels

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

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

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

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

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

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

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

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$116,185	$1,183,206	$72,444	$1,371,836	12.89 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$173,050	-	-	-	$173,050	1.63 %
Interior	-	-	$2,412,096	$1,113,767	$1,335,914	$4,861,777	45.69 %
Mechanical	-	$636,014	-	-	-	$636,014	5.98 %
Electrical	-	$136,772	$62,548	-	$105,361	$304,681	2.86 %
Plumbing	-	-	-	$577	$40,075	$40,652	0.38 %
Fire and Life Safety	$373,436	-	-	-	-	$373,436	3.51 %
Technology	-	-	$2,332,446	-	-	$2,332,446	21.92 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$36,952	$501,715	$8,661	$547,327	5.14 %
Total	$373,436	$945,836	$4,960,227	$2,799,265	$1,562,454	$10,641,218	

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

The building systems with the most need include:

Interior	-	$4,861,777
Technology	-	$2,332,446
Site	-	$1,371,836

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

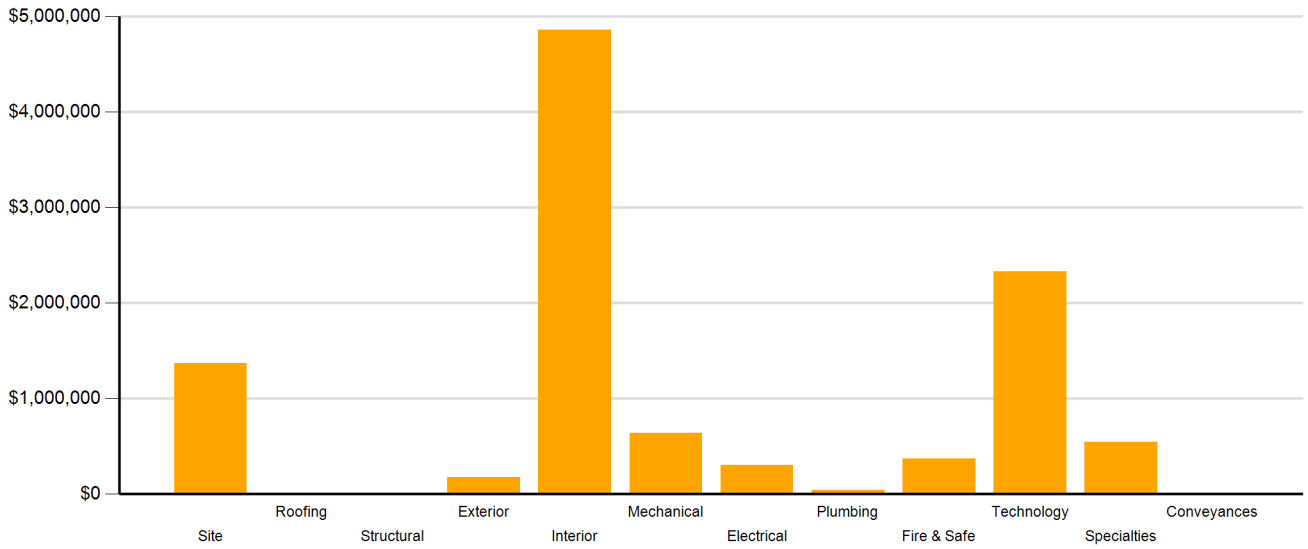

Figure 2: System Deficiencies

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	-	-	$578,571	$293,977	-	$872,547
Barrier to Accessibility	-	-	$192,045	$135,521	-	$327,566
Capital Renewal	-	$945,836	$1,751,699	$2,158,003	$1,332,868	$6,188,406
Code Compliance	$373,436	-	-	-	-	$373,436
Educational Adequacy	-	-	$60,046	$54,372	$229,587	$344,005
Functional Deficiency	-	-	$62,548	-	-	$62,548
Hazardous Material	-	-	-	$157,392	-	$157,392
Technology	-	-	$2,309,351	-	-	$2,309,351
Traffic	-	-	$5,966	-	-	$5,966
Total	$373,436	$945,836	$4,960,227	$2,799,265	$1,562,454	$10,641,218

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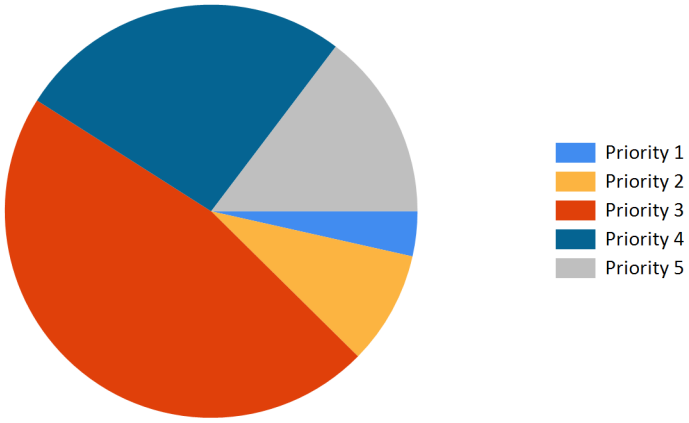

Figure 3: Current deficiencies by priority

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

		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	$1,371,836	$0	$0	$0	$13,609	$0	$13,609	$1,385,445
Roofing	$0	$0	$0	$0	$0	$0	$0	$0
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$173,050	$0	$0	$2,130,453	$0	$0	$2,130,453	$2,303,503
Interior	$4,861,777	$0	$0	$140,012	$1,458,688	$260,047	$1,858,747	$6,720,524
Mechanical	$636,014	$0	$0	$811,590	$70,151	$1,445,971	$2,327,712	$2,963,726
Electrical	$304,681	$0	$0	$0	$22,662	$0	$22,662	$327,343
Plumbing	$40,652	$0	$0	$35,985	$67,206	$0	$103,191	$143,843
Fire and Life Safety	$373,436	$0	$0	$0	$0	$0	$0	$373,436
Technology	$2,332,446	$0	$0	$0	$0	$0	$0	$2,332,446
Conveyances	$0	$0	$0	$0	$0	$48,114	$48,114	$48,114
Specialties	$547,327	$0	$0	$0	$0	$452,964	$452,964	$1,000,291
Total	**$10,641,218**	**$0**	**$0**	**$3,118,040**	**$1,632,316**	**$2,207,096**	**$6,957,452**	**$17,598,670**

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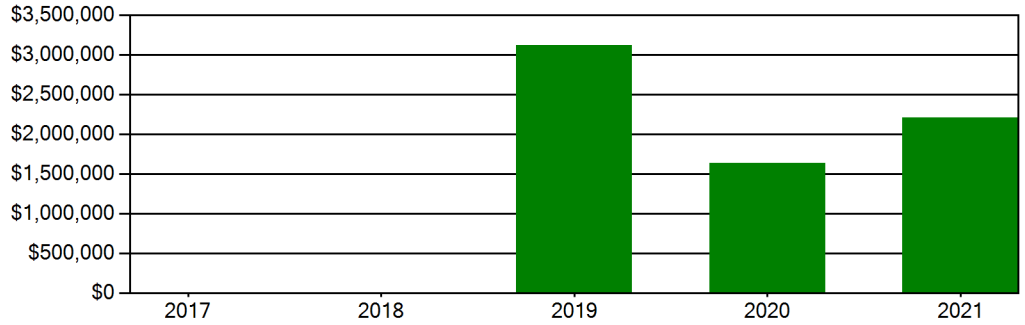
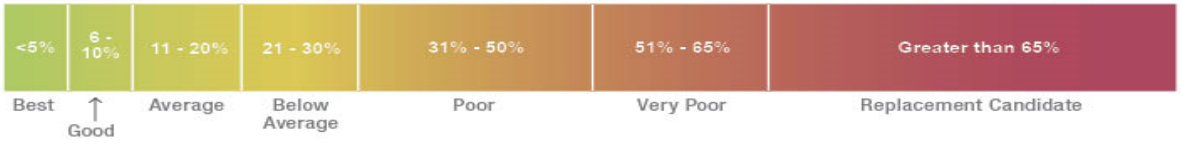


Figure 4: Life Cycle Capital Renewal Forecast

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 $45,500,000. For planning purposes, the total 5-year need at the George J. West Elementary School is $17,598,670 (Life Cycle Years 1-5 plus the FCI deficiency cost). The George J. West Elementary School facility has a 5-year FCI of 38.68%.

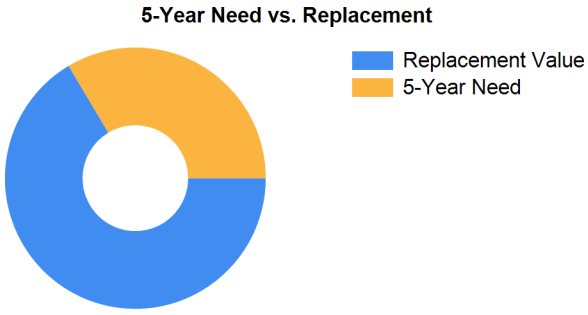


Figure 5: 5-Year FCI

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 897 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 George J. West Elementary School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $622,188.

Summary of Findings

The George J. West Elementary School comprises 130,000 square feet and was constructed in 1916. Current deficiencies at this school total $10,641,218. Five year capital renewal costs total $6,957,452. The total identified need for the George J. West Elementary School (current deficiencies and 5-year capital renewal costs) is $17,598,670. The 5-year FCI is 38.68%.

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
George J. West Elementary School Totals	130,000	1916	$10,641,218	$6,957,452	$17,598,670	38.68%

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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	Capital Renewal	800	SF	3	$21,378	12728
Install New Playground Equipment	Barrier to Accessibility	1	SF	3	$88,841	54927
Note: Install New Playground Equipment						
Traffic Signage Is Required	Traffic	2	Ea.	3	$5,966	16959
Note: Add school zone signs on adjacent street						
Asphalt Paving Requires Replacement	Capital Renewal	9	CAR	4	$38,930	18980
Asphalt Paving Requires Replacement	Capital Renewal	46	CAR	4	$198,976	18981
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$37,288	28551
Note: Backstops Require Replacement						
Fencing Requires Replacement (Ornamental Fence)	Capital Renewal	550	LF	4	$772,490	12727
Note: Principal requested that a taller fence replace this fence for the safety of the students.						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$7,644	28784
Note: Exterior Basketball Goals are Required						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$64,800	54928
Note: PE / Recess Playfield is Missing and is Needed						
	Sub Total for System	**9**	**items**		**$1,236,314**	
	Sub Total for School and Site Level	**9**	**items**		**$1,236,314**	

Building: 01 - Main Building

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Handrails Missing Or Not Compliant	Barrier to Accessibility	500	LF	4	$135,521	12746
Note: Handrails at stairs are too low.						
	Sub Total for System	**1**	**items**		**$135,521**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Brick Exterior Requires Replacement	Capital Renewal	1,000	SF Wall	2	$173,050	12742
Note: Brick is damaged, spalling.						
	Sub Total for System	**1**	**items**		**$173,050**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation	Acoustics	60	Ea.	3	$578,571	19849
Note: All classrooms						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	5,000	SF	3	$49,517	18983
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	5,200	SF	3	$153,119	12731
The Interior Door Hardware Requires Replacement	Barrier to Accessibility	30	Door	3	$103,205	12734
Note: Replace knobs.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	101,200	SF	3	$1,273,009	12729
The Wood Flooring Requires Replacement	Capital Renewal	7,000	SF	3	$254,675	12730
Ceiling Grid Requires Replacement	Capital Renewal	5,000	SF	4	$65,027	18982
Epoxy Flooring Requires Repair Or Replacement	Capital Renewal	14,000	SF	4	$291,892	12735
Interior Ceramic Walls Require Repair Or Replacement	Capital Renewal	3,000	SF	4	$73,181	12743
Note: Glazed brick.						
Interior Toilet Partition Requires Replacement	Capital Renewal	45	Ea.	4	$215,791	12745
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	28	Ea.	4	$8,757	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	970	LF	4	$24,269	Rollup

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 - square feet)	Hazardous Material	11,930	SF	4	$124,367	Rollup
Room Is Excessively Reverberant	Acoustics	12,000	SF	4	$293,977	19851
Note: Gym						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	428	SF	4	$16,507	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	3	Ea.	5	$6,928	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	111,400	SF	5	$807,112	Rollup
Room lacks appropriate sound control.	Educational Adequacy	200	SF	5	$7,044	Rollup
The Gypsum Board Ceilings Require Repainting	Capital Renewal	112,240	SF	5	$514,830	Rollup
	Sub Total for System	**19**	**items**		**$4,861,777**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Ductwork Requires Replacement (SF Basis)	Capital Renewal	39,000	SF	2	$628,692	12740
Note: Ductwork is corroded, has leaking joints and damaged sections.						
Location: Basement						
The Window AC Unit Component Requires Replacement	Capital Renewal	2	Ea.	2	$7,322	12737
Note: Window air conditioning units are noisy and under capacity.						
	Sub Total for System	**2**	**items**		**$636,014**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Generator Requires Replacement	Capital Renewal	1	Ea.	2	$83,398	12732
Note: Emergency generator is not functional.						
Switchgear Is Needed Or Requires Replacement	Capital Renewal	1	Ea.	2	$25,749	12744
Note: The switchgear is corroded.						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$21,266	12738
Note: The electrical panels do not have replacement parts and circuit breakers are unpredictable and unreliable.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$6,359	12739
Note: Panel parts and circuit breakers are unpredictable, replacement parts are no longer available.						
The Electrical Receptacles Are Inadequate And More are Needed	Functional Deficiency	100	Ea.	3	$62,548	12733
Note: Classrooms, library and offices have overloaded electrical outlets.						
Remove Abandoned Equipment	Capital Renewal	3	Ea.	5	$10,926	12736
Note: The building has several major pieces of equipment that do not fuction or are no longer needed. Two boilers and a fuel oil storage tank.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	188	Ea.	5	$94,434	Rollup
	Sub Total for System	**7**	**items**		**$304,681**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Floor Drains Are Required	Educational Adequacy	1	Ea.	4	$577	Rollup
Room lacks a drinking fountain.	Educational Adequacy	18	Ea.	5	$20,092	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	16	Ea.	5	$19,983	Rollup
	Sub Total for System	**3**	**items**		**$40,652**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Install Fire Sprinklers (NFPA 13)	Code Compliance	26,000	SF	1	$373,436	12726
Note: Fire Suppression System does not fully protect the structure. The classrooms are only partially protected						
	Sub Total for System	**1**	**items**		**$373,436**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	4	Ea.	3	$23,095	Rollup

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Auditorium AV/Multimedia system is in need of minor improvements.	Technology	1	Room	3	$104,247	23976
Technology: Campus wireless infrastructure inadequate.	Technology	60	Ea.	3	$87,567	23975
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	45	Ea.	3	$985,134	23978
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$21,892	23979
Technology: Instructional spaces do not have local sound reinforcement.	Technology	46	Ea.	3	$239,768	23982
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	4	Ea.	3	$23,351	23972
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$49,622	23968
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$49,622	23971
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$41,282	23967
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$41,282	23970
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$26,687	23969
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$7,297	23965
Technology: Main Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$46,703	23964
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	434	Ea.	3	$203,594	23974
Technology: Network system inadequate and/or near end of useful life	Technology	2	Ea.	3	$16,680	23980
Technology: Network system inadequate and/or near end of useful life	Technology	25	Ea.	3	$130,309	23981
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	109,316	SF	3	$205,126	23977
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$8,340	23966
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	4	Ea.	3	$20,849	23973
	Sub Total for System	**20**	**items**		**$2,332,446**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	8	Ea.	3	$36,952	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	930	Ea.	4	$501,715	12741
Room lacks an appropriate refrigerator.	Educational Adequacy	1	Ea.	5	$8,661	Rollup
	Sub Total for System	**3**	**items**		**$547,327**	
	Sub Total for Building 01 - Main Building	**57**	**items**		**$9,404,904**	
	Total for Campus	**66**	**items**		**$10,641,218**	

George J. West Elementary School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fences and Gates	Fencing - Chain Link (8 Ft)	200	LF	$13,609	4
Note:	6' fence				
	Sub Total for System	**1**	**items**	**$13,609**	
	Sub Total for Building -	**1**	**items**	**$13,609**	

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Operating Windows	Aluminum - Windows per SF	12,438	SF	$2,130,453	3
	Sub Total for System	**1**	**items**	**$2,130,453**	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Swinging Doors	Wood	30	Door	$140,012	3
Acoustical Suspended Ceilings	Ceilings - Adhered acoustical tiles	5,500	SF	$60,368	4
Stone Facing	Brick/Stone veneer	11,000	SF	$31	4
Note:	Glazed brick				
Interior Swinging Doors	Wood	154	Door	$718,727	4
Interior Door Supplementary Components	Door Hardware	214	Door	$679,562	4
Interior Swinging Doors	Steel	60	Door	$260,047	5
	Sub Total for System	**6**	**items**	**$1,858,746**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Hydronic Distribution	Pump - 5HP	2	Ea.	$19,292	3
Heating System Supplementary Components	Controls - DDC (Bldg.SF)	130,000	SF	$792,298	3
Decentralized Heating Equipment	Unit Heater Steam/HW (36 MBH)	1	Ea.	$1,667	4
Decentralized Heating Equipment	Heating Unit Vent - Steam/Hot water	4	Ea.	$68,484	4
Facility Hydronic Distribution	2-Pipe Steam System (Hot)	130,000	SF	$1,014,274	5
Exhaust Air	Roof Exhaust Fan - Large	5	Ea.	$70,314	5
Exhaust Air	Roof Exhaust Fan - Small	2	Ea.	$5,339	5
Heat Generation	Steam Condensate Reciever, Tank and Pump	1	Ea.	$356,044	5
	Sub Total for System	**8**	**items**	**$2,327,710**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	15	Ea.	$22,662	4
	Sub Total for System	**1**	**items**	**$22,662**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Potable-Water Storage Tanks	Water Storage Tank - 250 Gallon	1	Ea.	$22,902	3
Domestic Water Equipment	Water Heater - Gas - 200 Gallon	1	Ea.	$13,083	3
Plumbing Fixtures	Refrigerated Drinking Fountain	9	Ea.	$67,206	4
	Sub Total for System	**3**	**items**	**$103,191**	

Conveyances

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lifts	ADA Wheelchair lift	1	Ea.	$48,114	5
	Sub Total for System	**1**	**items**	**$48,114**	

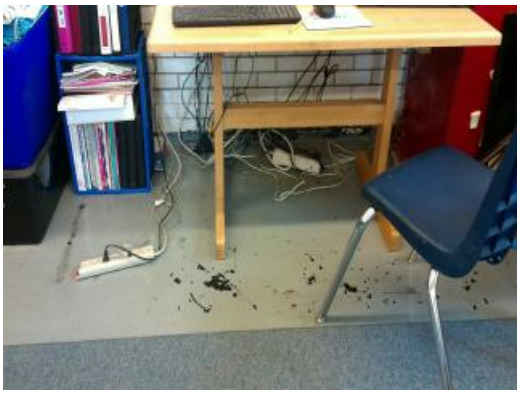
Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry	40	Room	$452,964	5
	Sub Total for System	**1**	**items**	**$452,964**	
	Sub Total for Building 01 - Main Building	**21**	**items**	**$6,943,840**	
	Total for: George J. West Elementary School	**22**	**items**	**$6,957,450**	

Supporting Photos

Damaged Ceramic Tile Flooring


Damaged Ceramic Tile Flooring


Overload Power Strip


Door Hardware


Damaged Epoxy Flooring


Damaged Epoxy Flooring


Abandoned Boilers


Front Elevation


Site Aerial


NW Elevation


SW Elevation


Front Entrance


Kindergarten Wing


Ornamental Fence


Concrete Sidewalk


Damaged VCT Flooring

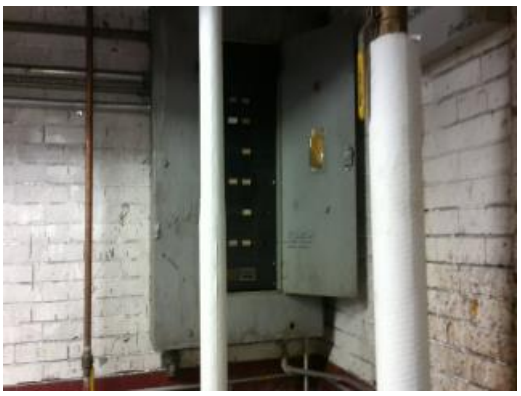
Damaged VCT Flooring

Damaged Wood Flooring

Electrical Subpanel in Corridors

Window Air Conditioning Unit - Office

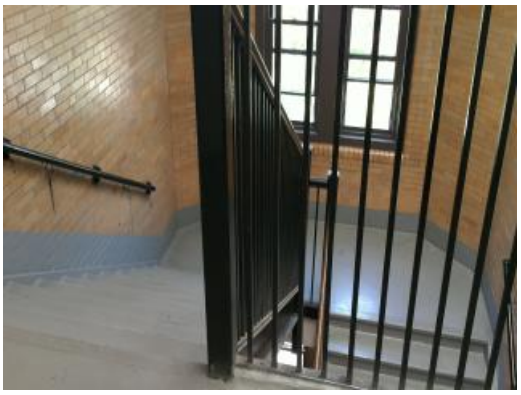
Damaged Lockers



Unpredictable Panels


Damaged Exterior


Damaged Exterior


Guardrails On Stairs

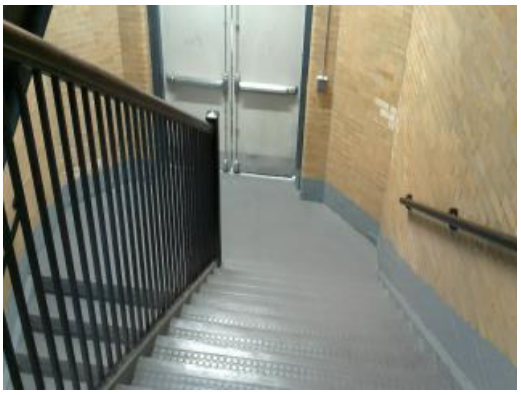

Ceramic Tile Walls


Auditorium Mezzanine


Classroom In New Addition


Staff Toilets


Restroom Lavatories


Stairwell


Service Sink

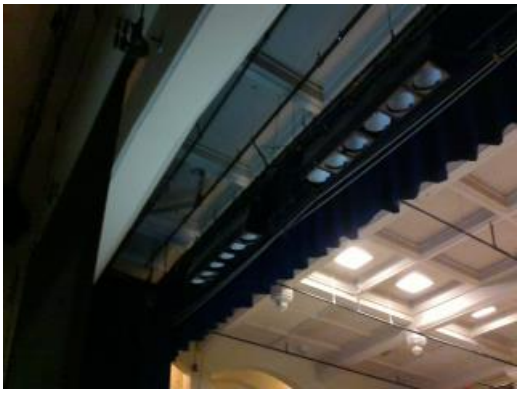

Typical Corridor Finishes


Exterior Stairs


Canopy


Library


Auditorium


Stage Lighting


Cafeteria


Gym Flooring

Exterior Elevation

Kitchen

Music Room

Classroom

Heating Unit Ventilator

Exterior Elevation


Fire Alarm Control Panel


Gym


Cafeteria


Typical Student Restroom


Exterior Elevation


Library


Exterior Elevation


Entrance


Exterior Elevation


Auditorium


Weight Room


Boilers


Canopy


Art Classroom