Facility Condition Assessment

Dr. Harry L. Halliwell Memorial School | *October 2016*

Address: 358 Victory Highway, Slatersville, RI 02876

Report Generated: October 06, 2016

DRAFT

Executive Summary

Dr. Harry L. Halliwell Memorial School, located at 358 Victory Highway in Slatersville, Rhode Island, was built in 1957. It comprises 41,175 gross square feet. Data in this report was collected in the spring/summer of 2016.

Dr. Harry L. Halliwell Memorial School has an enrollment of 331, serves grades 3 - 5, and has 18 classrooms. The LEA reported capacity for Dr. Harry L. Halliwell Memorial School is 330 with a resulting utilization of 100.00%. For master planning efforts, a RIDE Model Program Standard was established based on the RIDE School Construction Regulations. Applying RIDE's Model Program Standard, a facility of this size could ideally support an enrollment of approximately 229 students.

The total current deficiencies for this campus, in 2016 construction cost dollars, are estimated at $9,927,886. For master planning purposes a five-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Dr. Harry L. Halliwell Memorial School the five-year need is $11,086,555. The findings contained within this report resulted from an assessment of building systems. Assessments were performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous material, and technology infrastructure.

Figure 1: Aerial view of Dr. Harry L. Halliwell Memorial 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 the ages of a building's systems to forecast system replacement as it reaches the end of its 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.

All members of the survey team recorded existing conditions, identified problems and deficiencies, and documented corrective action and quantities. The team took digital photos at each school to better identify significant deficiencies.

Discipline Specialists

All assessment teams produced current deficiencies that are 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 was incorporated 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.

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

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialist 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: 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. Also, onsite personnel conducted an initial evaluation from data collected during the facility condition assessment. Based on the 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 acoustic, 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 systems noise and vibration control.

Educational Space Analysis: The evaluation of 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 create a listing of alterations that should be made to make the space a better environment for teaching and learning.

DRAFT

System Summaries

The following tables summarize major building systems at Dr. Harry L. Halliwell Memorial School campus, identified by discipline and building.

Site

The site level systems for this campus includes:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Asphalt Pedestrian Pavement

Building Envelope

The exterior systems for the buildings at this campus includes:

01 - Building 01:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
02 - Building 02:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
03 - Building 03:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
04 - Building 04:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
05 - Building 05:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
06 - Administration Building:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
07 - Building 07:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
08 - Building 08:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
09 - Building 09:	E.I.F.S. Exterior Wall
	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
10 - Building 10:	Wood Siding Exterior Wall
	Wood Exterior Windows

DRAFT

10 - Building 10:	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
11 - Building 11:	Wood Siding Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors

The roofing for the buildings at this campus consists of:

01 - Building 01:	Composition Shingle Roofing
02 - Building 02:	Composition Shingle Roofing
03 - Building 03:	Composition Shingle Roofing
04 - Building 04:	Composition Shingle Roofing
05 - Building 05:	Composition Shingle Roofing
06 - Administration Building:	Composition Shingle Roofing
07 - Building 07:	Composition Shingle Roofing
08 - Building 08:	Composition Shingle Roofing
09 - Building 09:	Composition Shingle Roofing
10 - Building 10:	Composition Shingle Roofing
11 - Building 11:	Composition Shingle Roofing

Interior

The interior systems for the buildings at this campus includes:

01 - Building 01:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
02 - Building 02:	Wood Interior Doors
	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring

DRAFT

03 - Building 03:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
04 - Building 04:	Wood Interior Doors
	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
05 - Building 05:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
06 - Administration Building:	Wood Interior Doors
	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Adhered Acoustical Ceiling Tiles
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
07 - Building 07:	Steel Interior Doors
	Wood Interior Doors

DRAFT

07 - Building 07:	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
08 - Building 08:	Wood Interior Doors
	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Interior Wall Painting
	Concrete Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
09 - Building 09:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
10 - Building 10:	Wood Interior Doors
	Interior Door Hardware
	Wood Ceilings
	Wood Wall Paneling
	Interior Wall Painting
	Concrete Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
11 - Building 11:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Interior Wall Painting
	Concrete Flooring

DRAFT

11 - Building 11:	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring

Mechanical

The mechanical systems for the buildings at this campus includes:

01 - Building 01:	150 MBH Gas Furnace
	Ductwork
02 - Building 02:	150 MBH Gas Furnace
	Ductwork
03 - Building 03:	150 MBH Gas Furnace
	Ductwork
04 - Building 04:	150 MBH Gas Furnace
	Ductwork
05 - Building 05:	150 MBH Gas Furnace
	Ductwork
06 - Administration Building:	150 MBH Gas Furnace
	Window Units
	Ductwork
07 - Building 07:	150 MBH Gas Furnace
	Ductwork
08 - Building 08:	150 MBH Gas Furnace
	Window Units
	Ductwork
09 - Building 09:	150 MBH Gas Furnace
	Ductwork
10 - Building 10:	400 MBH Gas Furnace
	Ductwork
11 - Building 11:	150 MBH Gas Furnace
	Ductwork

Plumbing

The plumbing systems for the buildings at this campus includes:

06 - Administration Building:	Gas Piping System
	40 Gallon Gas Water Heater
01 - Building 01:	Gas Piping System
	40 Gallon Gas Water Heater
10 - Building 10:	2" Backflow Preventers
	Gas Piping System
	40 Gallon Gas Water Heater
11 - Building 11:	Gas Piping System
	40 Gallon Gas Water Heater

DRAFT

02 - Building 02:	Gas Piping System
	40 Gallon Gas Water Heater
03 - Building 03:	Gas Piping System
	40 Gallon Gas Water Heater
04 - Building 04:	Gas Piping System
	40 Gallon Gas Water Heater
05 - Building 05:	Gas Piping System
	40 Gallon Gas Water Heater
07 - Building 07:	Gas Piping System
	40 Gallon Gas Water Heater
08 - Building 08:	Gas Piping System
	40 Gallon Gas Water Heater
09 - Building 09:	Gas Piping System
	40 Gallon Gas Water Heater
06 - Administration Building:	Domestic Water Piping System
01 - Building 01:	Domestic Water Piping System
10 - Building 10:	Domestic Water Piping System
11 - Building 11:	Domestic Water Piping System
02 - Building 02:	Domestic Water Piping System
03 - Building 03:	Domestic Water Piping System
04 - Building 04:	Domestic Water Piping System
05 - Building 05:	Domestic Water Piping System
07 - Building 07:	Domestic Water Piping System
08 - Building 08:	Domestic Water Piping System
09 - Building 09:	Domestic Water Piping System
06 - Administration Building:	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
01 - Building 01:	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
10 - Building 10:	Lavatories
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
11 - Building 11:	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain

DRAFT

11 - Building 11:	Restroom Lavatories
	Toilets
02 - Building 02:	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
03 - Building 03:	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
04 - Building 04:	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
05 - Building 05:	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
07 - Building 07:	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
08 - Building 08:	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
09 - Building 09:	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets

DRAFT

Electrical

The electrical systems for the buildings at this campus includes:

01 - Building 01:	Panelboard - 120/208 100A
	Light Fixtures
02 - Building 02:	Panelboard - 120/208 100A
	Light Fixtures
03 - Building 03:	Panelboard - 120/208 100A
	Light Fixtures
04 - Building 04:	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Light Fixtures

05 - Building 05:	Panelboard - 120/208 100A
	Light Fixtures
06 - Administration Building:	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Light Fixtures
07 - Building 07:	Panelboard - 120/208 100A
	Building Mounted Lighting Fixtures
	Light Fixtures
08 - Building 08:	Panelboard - 120/208 100A
	Building Mounted Lighting Fixtures
	Light Fixtures
09 - Building 09:	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Light Fixtures
10 - Building 10:	600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	600 Amp Distribution Panel
	Light Fixtures
	Building Mounted Lighting Fixtures
11 - Building 11:	Panelboard - 120/208 100A
	Light Fixtures

DRAFT

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, re-carpeting, improved signage, or other improvements to the facility environment.

DRAFT

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

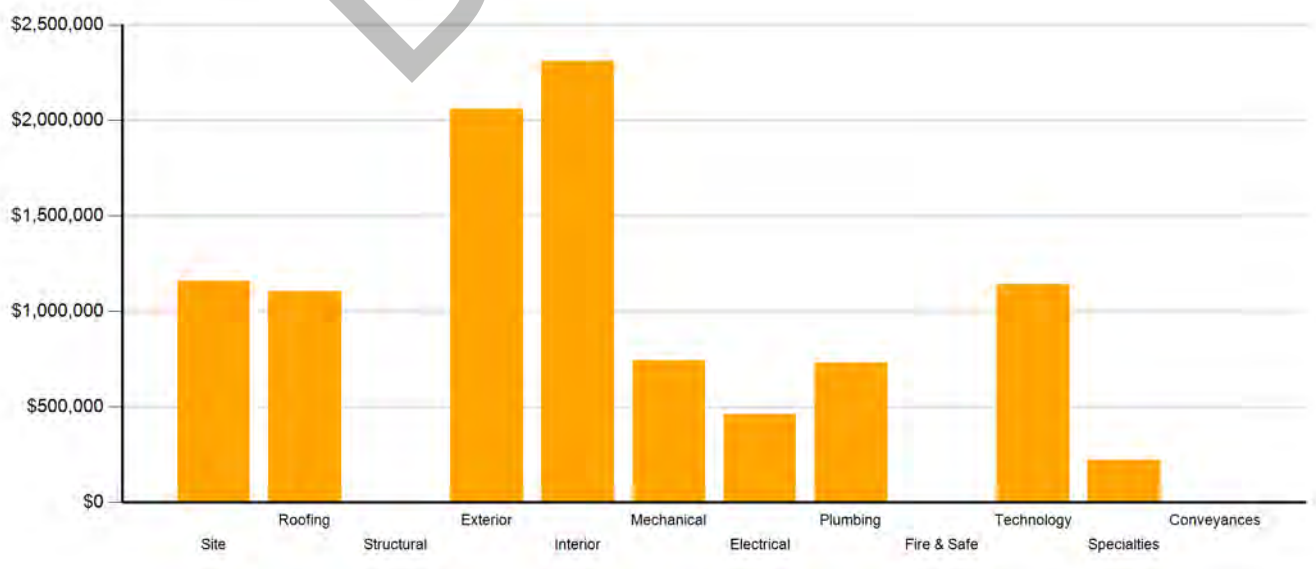
	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$1,042,955	$59,194	$54,381	$1,156,530	11.65 %
Roofing	$1,103,046	-	-	-	-	$1,103,046	11.11 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$635,554	$81,356	$1,342,208	-	$2,059,119	20.74 %
Interior	-	$9,507	$1,358,285	$708,267	$232,472	$2,308,532	23.25 %
Mechanical	-	$136,824	$605,320	-	-	$742,145	7.48 %
Electrical	-	$399,639	$17,911	-	$44,203	$461,753	4.65 %
Plumbing	-	$7,081	$668,967	$56,532	-	$732,580	7.38 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$1,140,425	-	-	$1,140,425	11.49 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	-	$223,756	-	$223,756	2.25 %
Total	$1,103,046	$1,188,605	$4,915,220	$2,389,957	$331,057	$9,927,886	

The building systems at the campus with the most need include:

Interior	-	$3,185,745
Exterior	-	$2,059,119
Site	-	$1,156,530

The table below represents the building systems and their percentages for overall campus need.

Figure 2: System Deficiencies



DRAFT

Current Deficiencies by Category

The deficiencies have been further grouped according to the observed deficiency category and priority.

- **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 and Rhode Island Governors Commission on Disability. Additional items 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 deficiency correcting planned work postponed beyond its regular life expectancy.

- **Code compliance** deficiencies relate 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 and are reflected in the master plan.

- **Educational adequacy** includes deficiencies identify how facilities align with the Basic Education Program and the RIDE School Construction Regulations.

- **Functional deficiencies** are deficiencies for a component or system that has failed before the end of its expected life or is 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 dedicate air conditioning for telecommunication rooms.

- **Traffic** site deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

DRAFT

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

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	$31,316	-	$31,316
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	$1,103,046	$1,179,098	$2,164,733	$1,772,543	$228,535	$6,447,955
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$60,624	$569,937	$102,522	$733,082
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	$9,507	$1,345,659	$16,162	-	$1,371,328
Technology	-	-	$1,079,802	-	-	$1,079,802
Traffic	-	-	$264,403	-	-	$264,403
Total	$1,103,046	$1,188,605	$4,915,220	$2,389,957	$331,057	$9,927,886

DRAFT

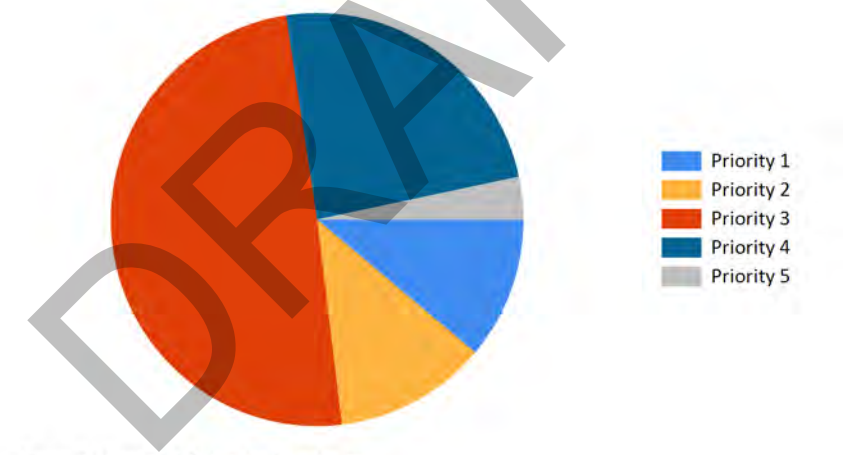


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

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

However, 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 10-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 the end of it's life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 10-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	Year 6 2022	Year 7 2023	Year 8 2024	Year 9 2025	Year 10 2026	Total	$/GSF
Site	$1,156,530	$0	$0	$918,281	$0	$93,429	$0	$0	$0	$0	$0	$1,011,710	$24.57
Roofing	$1,103,046	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Structural	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Exterior	$2,059,119	$0	$0	$0	$0	$0	$0	$16,504	$0	$0	$0	$16,504	$0.40
Interior	$2,308,532	$0	$0	$0	$0	$50,991	$0	$746,231	$0	$0	$762,730	$1,559,952	$37.89
Mechanical	$742,145	$0	$0	$0	$6,936	$0	$0	$0	$0	$0	$0	$6,936	$0.17
Electrical	$461,753	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Plumbing	$732,580	$0	$0	$0	$0	$0	$9,543	$0	$0	$0	$34,760	$44,303	$1.08
Fire and Life Safety	$0	$0	$0	$89,032	$0	$0	$0	$0	$0	$0	$0	$89,032	$2.16
Technology	$1,140,425	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Specialties	$223,756	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Total	**$9,927,886**	**$0**	**$0**	**$1,007,313**	**$6,936**	**$144,420**	**$9,543**	**$762,735**	**$0**	**$0**	**$797,490**	**$2,728,437**	**$66.26**

DRAFT

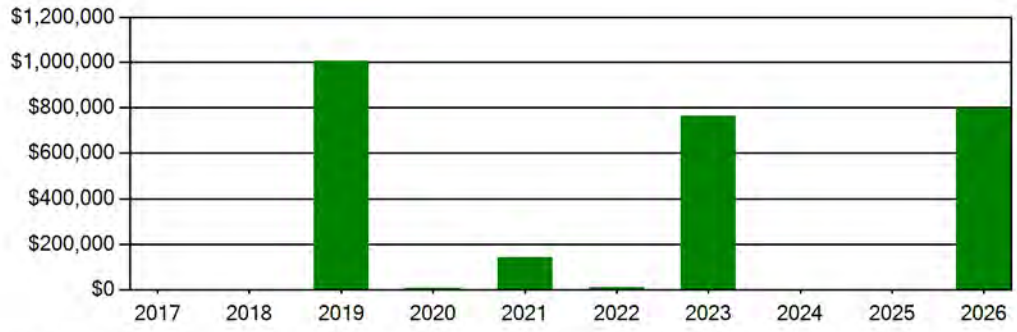


Figure 4: Life Cycle Capital Renewal Forecast

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 National Association of College and University Business Officers has suggested for college planning that an FCI of less than 5 percent is good, an FCI between 5 and 10 percent is fair, and an FCI greater than 10 percent is poor. In K-12 public school planning, the gulf between 10 percent and 100 percent is just not stratified enough. Jacobs has used the following ranges to provide a little more gradation. FCI's less than 10 percent are considered good, 10 to 60 percent is fair, and anything greater than 60 percent is poor. Financial modeling has shown that over a 30-year period, schools that fall in the 65 percent or greater range are more cost-effective to replace than to repair. This is due to efficiency gains with more modern facilities 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/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 decision.

The FCI is calculated by dividing the total repair cost, including site-related repairs, by the total replacement cost. Costs associated with new construction are not included in the FCI calculation. As a general rule, an FCI below 10% is considered good. An economic analysis generally suggests that FCIs greater than 65 percent represent the point where facilities should be considered for replacement. This value typically indicates the point where further expenditures on a building offer little return when compared to the potential cost of replacing that facility.

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 $14,411,250. The total current cost for all deficiencies is $9,927,886.

The Dr. Harry L. Halliwell Memorial School facility has an overall FCI of 68.89%.

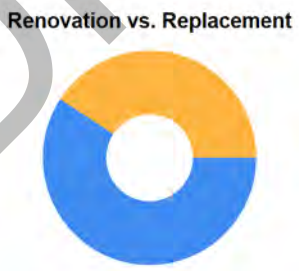


Figure 5: Renovation vs Replacement

DRAFT

Five Year FCI

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. For planning purposes, the total five-year need at Dr. Harry L. Halliwell Memorial School is $11,086,555 (Life Cycle Yrs 1-5 plus the Current Deficiencies)

A five year FCI was calculated by dividing the five year need by the total replacement cost. The Dr. Harry L. Halliwell Memorial School facility has a five year FCI of 76.93% (Life Cycle Yrs 1-5 plus Current Deficiencies divided by the Total Replacement Cost).

Summary of Findings

The table below summarizes the condition findings at Dr. Harry L. Halliwell Memorial School.

Table 4: Facility Condition by Building

Number	Building Name	Gross Sq Ft	Built Date	Current Deficiencies	FCI	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
	Exterior Site			$1,442,729		$2,454,439	
01	Building 01	2,500	1957	$469,778	53.69%	$481,404	55.02%
02	Building 02	2,500	1957	$444,771	50.83%	$449,461	51.37%
03	Building 03	2,500	1957	$441,929	50.51%	$446,619	51.04%
04	Building 04	2,500	1957	$447,728	51.17%	$452,418	51.70%
05	Building 05	5,000	1957	$863,737	49.36%	$873,116	49.89%
06	Administration Building	2,500	1957	$1,877,393	214.56%	$1,882,083	215.10%
07	Building 07	2,500	1957	$459,924	52.56%	$464,614	53.10%
08	Building 08	2,500	1957	$454,015	51.89%	$458,705	52.42%
09	Building 09	5,000	1957	$719,453	41.11%	$728,832	41.65%
10	Building 10	11,175	1957	$1,876,181	47.97%	$1,959,926	50.11%
11	Building 11	2,500	1957	$430,249	49.17%	$434,939	49.71%
Totals		**41,175**		**$9,927,886**	**68.89%**	**$11,086,555**	**76.93%**

The following pages provide a listing of all current deficiencies and 10 year life cycle need for the site and building and the associated costs, followed by photos taken during the assessment.

DRAFT

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fencing Requires Replacement (4' Chain Link Fence)	Capital Renewal	360	LF	3	$23,116	1112
Note: Fence is falling down.						
Septic System Has Failed And Requires Replacement	Capital Renewal	1	Ea.	3	$755,436	2847
Traffic Signage Is Required	Traffic	7	Ea.	3	$264,403	4452
Note: Upgrade school zone signs						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,674	28524
Note: Backstops Require Replacement						
Exterior Basketball Goals Require Replacement	Capital Renewal	4	Ea.	4	$30,520	1110
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,878	28767
Note: Exterior Basketball Goals are Required						
The school lacks a paved play area.	Educational Adequacy	1	Ea.	5	$48,503	28025
Note: The school lacks a paved play area.						
	Sub Total for System	**7**	**items**		**$1,156,530**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Handrail Requires Repainting	Capital Renewal	500	LF	4	$5,194	1312
Note: Railings throughout the campus are worn and in need of repainting.						
Media Center does not meet size standard	Educational Adequacy	420	SF	4	$281,005	53241
Note: Library/Media Center does not meet required RI standard for space size. (Std=2020 sf, Current=1600 sf)						
	Sub Total for System	**2**	**items**		**$286,199**	
	Sub Total for School and Site Level	**9**	**items**		**$1,442,729**	

Building: 01 - Building 01

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1120
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1144
Note: Exterior door at entrance is worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1115
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1121
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1122
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	3	$74,939	1114
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$118,779**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
9x9 Asbestos Tile Present and In Active Use, Greater than 25 Percent has Significant Deterioration	Hazardous Material	2,250	SF	3	$64,172	1118
Note: VCT is likely original to building and is stained and faded.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	1123
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1116
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,375	SF	5	$15,692	1117
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**4**	**items**		**$110,704**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2849
	Sub Total for System	**1**	**items**		**$36,753**	

DRAFT

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1197
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1073
Note: 40 amp						
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**3**	**items**		**$23,722**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	1	Ea.	3	$10,220	1205
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	2895
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1194
Note: Corrosion at the soil line.						
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1074
Note: Toilets are corroded, stained, and leaking.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	4	$2,576	1076
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	4	$6,362	1075
Note: Restroom lavatories are corroded and leaking.						
	Sub Total for System	**6**	**items**		**$48,137**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
Technology: Campus wireless infrastructure meets standards but does not cover all areas of campus.	Technology	24	Ea.	3	$31,943	24960
Note: Wireless does not support 802.11AC						
	Sub Total for System	**2**	**items**		**$38,006**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1119
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 01 - Building 01	**23**	**items**		**$469,778**	

Building: 02 - Building 02

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1136
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1129
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1137
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1138
Note: Windows are single-pane and likely original to the building.						
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	3	$6,417	1130
Note: Exterior door at entrance is worn, chipped, and faded.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	4	$74,939	1128
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$118,779**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	1139
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	2,250	SF	3	$64,172	1134
Note: VCT is likely original to building and is stained and faded.						
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1132
Note: Grid system is original to the building and in need of replacement.						

DRAFT

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,375	SF	5	$15,692	1131
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**4**	**items**		**$110,704**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1078
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2851
	Sub Total for System	**2**	**items**		**$43,689**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1220
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1077
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**3**	**items**		**$23,722**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	1	Ea.	3	$10,220	1226
Note: Drinking fountain is leaking.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	3	$2,576	1228
Note: Mop sink is corroded and leaking.						
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	1079
Note: Water heater is rusted and corroded.						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1219
Note: Corrosion at the soil line.						
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1224
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	4	$6,362	1225
Note: Restroom lavatories are stained and leaking.						
	Sub Total for System	**6**	**items**		**$48,137**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
	Sub Total for System	**1**	**items**		**$6,062**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1135
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 02 - Building 02	**23**	**items**		**$444,771**	

Building: 03 - Building 03

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1150
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1145
Note: Exterior door at entrance is worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1142
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1151
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1152
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	4	$74,939	1141
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$118,779**	

DRAFT

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
9x9 Asbestos Tile Present and In Active Use, Greater than 25 Percent has Significant Deterioration	Hazardous Material	2,250	SF	3	$64,172	1148
Note: VCT is likely original to building and is stained and faded.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	2855
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1146
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,375	SF	5	$15,692	1147
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**4**	**items**		**$110,704**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1080
Note: Furnaces are corroded and rusted.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2852
	Sub Total for System	**2**	**items**		**$43,689**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1254
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1082
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**3**	**items**		**$23,722**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	1081
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1253
Note: Corrosion at the soil line.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	1	Ea.	3	$7,377	1258
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$6,362	1257
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1256
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	4	$2,576	1259
Note: Mop sink is corroded and leaking.						
	Sub Total for System	**6**	**items**		**$45,295**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
	Sub Total for System	**1**	**items**		**$6,062**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1149
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 03 - Building 03	**23**	**items**		**$441,929**	

Building: 04 - Building 04

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1161
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1156
Note: Exterior door at entrance is worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1155
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1162
Note: Windows are single-pane and likely original to the building.						

DRAFT

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1165
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	4	$74,939	1154
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$118,779**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	1167
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	2,250	SF	3	$64,172	2854
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1157
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,375	SF	5	$15,692	1158
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**4**	**items**		**$110,704**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1083
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2853
	Sub Total for System	**2**	**items**		**$43,689**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1277
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1085
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,799	1283
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**4**	**items**		**$29,521**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	2	$3,160	1084
Note: Water heater is rusted and corroded.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	3	$2,576	1287
Note: Mop sink is corroded and leaking.						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1275
Note: Corrosion at the soil line.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	1	Ea.	3	$7,377	1285
Note: Compressor is non-functional.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$6,362	1282
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1281
	Sub Total for System	**6**	**items**		**$45,295**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
	Sub Total for System	**1**	**items**		**$6,062**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1160
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 04 - Building 04	**24**	**items**		**$447,728**	

Building: 05 - Building 05

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	5,000	SF	1	$142,605	1179
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$142,605**	

DRAFT

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1172
Note: Exterior door at entrance is worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	80	SF	2	$15,275	1170
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	192	SF	2	$36,659	1180
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	120	SF	2	$22,912	1182
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	5,000	SF	4	$149,877	1168
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$231,140**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
12 x 12 Floor Tiles Are Lifting or Broken and Highly Likely Contain Asbestos	Hazardous Material	4,500	SF	3	$128,344	1176
Note: 12x12 and 9x9 tiles should be replaced.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	5,000	SF	3	$2,377	1183
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Ceiling Grid Requires Replacement	Capital Renewal	5,000	SF	4	$59,303	1173
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	4,750	SF	5	$31,385	1175
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**4**	**items**		**$221,408**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	4	Ea.	2	$13,873	1288
Note: Heat exchangers are rusted.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	5,000	SF	3	$73,506	2856
	Sub Total for System	**2**	**items**		**$87,378**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	5,000	SF	2	$29,709	1291
The Panelboard Requires Replacement	Capital Renewal	2	Ea.	2	$9,697	1086
Room Has Insufficient Electrical Outlets	Educational Adequacy	12	Ea.	5	$6,028	Rollup
	Sub Total for System	**3**	**items**		**$45,434**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	2	Ea.	3	$20,440	1296
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	2	Ea.	3	$5,153	1298
Note: Mop sinks are corroded and leaking.						
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	2902
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	5,000	SF	3	$40,229	1290
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	4	Ea.	3	$12,724	1294
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	4	Ea.	3	$11,408	1293
	Sub Total for System	**6**	**items**		**$93,115**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	3	Ea.	3	$9,094	Rollup
	Sub Total for System	**1**	**items**		**$9,094**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	3	Room	4	$33,563	1177
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$33,563**	
	Sub Total for Building 05 - Building 05	**23**	**items**		**$863,737**	

DRAFT

Building: 06 - Administration Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1196
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	3	Door	2	$19,252	1187
Note: Exterior doors are worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1186
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1198
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	288	SF	2	$54,988	1199
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	4	$74,939	1185
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$178,964**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	1,000	SF	2	$9,507	6547
Note: Metal Covered Walkway Metal Walkway						
12 x 12 Floor Tiles Are Lifting or Broken and Highly Likely Contain Asbestos	Hazardous Material	2,250	SF	3	$64,172	1193
Note: 12x12 and 9x9 tiles should be replaced.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	1,250	SF	3	$594	1200
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	1,250	SF	3	$594	2860
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	11,000	LF	3	$209,153	6546
Note: All Exterior Halls Window Caulk						
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	200	SF	3	$1,901	6455
Note: Room 5A Painted Walls						
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	50	SF	3	$475	6475
Note: Room 1B Windows						
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	4,000	SF	3	$38,028	6521
Note: Cafeteria Wood Ceiling						
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	50	SF	3	$475	6523
Note: Café Stage Window Trim						
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	1	Ea.	3	$285	6443
Note: Conference Room Door Frame						
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	1	Ea.	3	$285	6533
Note: Exit Door						
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	100	LF	3	$2,282	6442
Note: Conference Room Window Trim						
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	30	LF	3	$685	6503
Note: Music Room Wood Casework - Base Cabinets						
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	100	LF	3	$2,282	6542
Note: Boys and Girls Bathrooms Wood Trim						
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	1,000	LF	3	$22,817	6544
Note: All Exterior Halls Wood Trim and Panels						
Ceiling Grid Requires Replacement	Capital Renewal	1,250	SF	4	$14,826	1189
Note: Grid system is original to the building and in need of 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	300	SF	4	$2,852	6522
Note: Café stage painted walls						

DRAFT

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	1,200	SF	4	$11,408	6528
Note: Kitchen Wood Ceiling						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	200	SF	4	$1,901	6532
Note: Office Wood Ceiling						
Room Is Excessively Reverberant	Acoustics	3,600	SF	4	$31,316	4688
Note: Gym						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,500	SF	5	$16,518	1191
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**21**	**items**		**$432,357**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1089
Note: Heat exchangers are rusted.						
The Window AC Unit Component Requires Replacement	Capital Renewal	5	Ea.	2	$16,694	1096
Note: Window units are aged and rusted.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2857
	Sub Total for System	**3**	**items**		**$60,383**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1302
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,799	1087
The Panelboard Requires Replacement	Capital Renewal	3	Ea.	2	$14,546	1090
	Sub Total for System	**3**	**items**		**$35,200**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	2859
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1305
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	3	Ea.	3	$8,556	1091
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	4	$2,576	1094
Note: Mop sinks are corroded and leaking.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	1	Ea.	4	$7,377	2858
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	3	Ea.	4	$9,543	1093
	Sub Total for System	**6**	**items**		**$51,328**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Campus lacks security electronic access control.	Technology	4	Ea.	3	$30,422	3943
Note: No Access Control System add Access Control with 4 doors						
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	1	Ea.	3	$9,507	3940
Note: Refresh AV system in Library.						
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	24	Ea.	3	$479,151	3941
Note: Technology: Add new classroom AV/Multimedia systems to support digital formats.						
Technology: Gymnasium sound system is nonexisitant, inadequate, or near end of useful life.	Technology	1	Ea.	3	$9,127	3945
Note: Refresh gym audio system						
Technology: Instructional spaces do not have local sound reinforcement.	Technology	24	Ea.	3	$114,084	3938
Note: Add sound reinforcement found in instructions spaces						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,324	3929
Note: IDF Admin needs grounding system improvements.						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,324	3934
Note: IDF Classroom needs grounding system improvements.						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	3928
Note: IDF Admin needs to be rezoned.						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	3933
Note: IDF Classroom add secure wall cabinet if not rezoning						
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	3926
Note: MDF has no ground system.						

DRAFT

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$50,197	3924
Note: miff - rezone and dedicate space						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	48	Ea.	3	$20,535	3927
Note: MDF Existing category 5 cables serviced by this space.						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	10	Ea.	3	$4,278	3931
Note: IDF Admin Existing category 5 cables serviced by this space.						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	10	Ea.	3	$4,278	3936
Note: IDF Classroom Existing category 5 cables serviced by this space.						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	48	Ea.	3	$20,535	3948
Note: Classrooms: Replace network cabling infrastructure.						
Technology: Security cameras and recording system are inadequate and/or near end of useful life.	Technology	18	Ea.	3	$85,563	3944
Note: No video surveillance system. Add VMS and 18 IP Cameras						
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$54,190	3939
Note: Add AV system to cafetorium.						
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$7,606	3925
Note: MDF does not have dedicated AC unit, since it is MDF it is considered large size.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	3930
Note: IDF Admin needs dedicated AC unit.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	3935
Note: IDF Classroom needs dedicated AC unit.						
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	1	Ea.	3	$6,275	3932
Note: IDF Admin is connected via copper: Refresh Telecommunication Room fiber infrastructure, add 6 strand drop						
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	1	Ea.	3	$6,275	3937
Note: IDF Classroom is connected via copper: Refresh Telecommunication Room fiber infrastructure, add 6 strand drop						
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	24	Ea.	3	$36,507	3947
Note: Replace/add telephone handsets in classrooms and office spaces.						
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	3946
Note: Phone system is aging Toshiba Strata analog, replace.						
	Sub Total for System	**24**	**items**		**$1,047,858**	
	Sub Total for Building 06 - Administration Building	**63**	**items**		**$1,877,393**	

Building: 07 - Building 07

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1210
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	3	Door	2	$19,252	1204
Note: Exterior doors are worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1203
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1211
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1212
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	4	$74,939	1201
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$131,613**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	1213
Note: Acoustic tiles are likely original to the building and in need of replacement.						

DRAFT

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	2,250	SF	3	$64,172	1208
Note: VCT is likely original to building and is stained and faded.						
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1206
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,500	SF	5	$16,518	1207
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**4**	**items**		**$111,530**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1163
Note: Heat exchangers are rusted.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2861
	Sub Total for System	**2**	**items**		**$43,689**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1174
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1164
The Mounted Building Lighting Requires Replacement	Capital Renewal	1	Ea.	3	$1,493	1100
Note: Building mounted lighting is corroded and non-functional.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**4**	**items**		**$25,214**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	1	Ea.	3	$10,220	1188
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	3	$2,576	1190
Note: Mop sink is corroded and leaking.						
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	1166
Note: Water connections are corroding.						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1171
Note: Corrosion at the soil line.						
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1181
Note: Toilets are stained and corroded.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	4	$6,362	1184
Note: Restroom lavatories are stained and leaking.						
	Sub Total for System	**6**	**items**		**$48,137**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
	Sub Total for System	**1**	**items**		**$6,062**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1209
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 07 - Building 07	**24**	**items**		**$459,924**	

Building: 08 - Building 08

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1236
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1217
Note: Exterior door at entrance is worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1215
Note: Single-pane windows from 1957.						

DRAFT

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1237
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1239
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	2,500	SF	4	$74,939	1214
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$118,779**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	1241
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	2,250	SF	3	$64,172	1231
Note: VCT is likely original to building and is stained and faded.						
The Terrazzo Flooring Requires Replacement	Capital Renewal	125	SF	3	$9,269	1232
Note: Terrazzo is stained and likely original to building						
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1229
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,500	SF	5	$16,518	1230
Note: Interior walls are chipped and faded and should be repainted.						
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	$3,522	Rollup
	Sub Total for System	**6**	**items**		**$124,321**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1261
The Window AC Unit Component Requires Replacement	Capital Renewal	1	Ea.	2	$3,339	1316
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2862
	Sub Total for System	**3**	**items**		**$47,028**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1314
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1264
The Mounted Building Lighting Requires Replacement	Capital Renewal	1	Ea.	3	$1,493	1101
Note: Building mounted lighting is corroded and non-functional.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**4**	**items**		**$25,214**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	2926
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1313
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	1	Ea.	3	$7,377	1260
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1265
Note: Toilets are non-functional.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	4	$2,576	1263
Note: Mop sink is corroded and leaking.						
	Sub Total for System	**5**	**items**		**$38,933**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
	Sub Total for System	**1**	**items**		**$6,062**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1234
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 08 - Building 08	**26**	**items**		**$454,015**	

DRAFT

Building: 09 - Building 09

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1268
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1248
Note: Exterior door at entrance is worn, chipped, and faded.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1246
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1269
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	87	SF	2	$16,611	1270
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	3,750	SF	4	$112,408	1245
Note: Wood veneer is cracked, faded, and in need of replacement.						
	Sub Total for System	**5**	**items**		**$161,403**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
12 x 12 Floor Tiles Are Lifting or Broken and Highly Likely Contain Asbestos	Hazardous Material	4,500	SF	3	$128,344	1266
Note: 12x12 and 9x9 tiles should be replaced.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	3,750	SF	3	$1,783	1271
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Ceiling Grid Requires Replacement	Capital Renewal	3,750	SF	4	$44,477	1250
Note: Grid system is original to the building and in need of replacement.						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	238	SF	4	$9,179	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$416	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	4,750	SF	5	$31,385	1251
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**6**	**items**		**$215,583**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	4	Ea.	2	$13,873	1325
Note: Heat exchangers are rusted.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	5,000	SF	3	$73,506	2863
	Sub Total for System	**2**	**items**		**$87,378**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	5,000	SF	2	$29,709	1318
The Panelboard Requires Replacement	Capital Renewal	3	Ea.	2	$14,546	1326
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,799	1327
Note: Service is under-rated for use.						
The Mounted Building Lighting Requires Replacement	Capital Renewal	2	Ea.	3	$2,985	1099
Room Has Insufficient Electrical Outlets	Educational Adequacy	16	Ea.	5	$8,037	Rollup
	Sub Total for System	**5**	**items**		**$61,076**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	2	Ea.	3	$5,153	1323
Note: Mop sinks are corroded and leaking.						
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	1324
Note: Corrosion at connections.						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	5,000	SF	3	$40,229	1317
Note: Corrosion at the soil line.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	1	Ea.	3	$7,377	1322
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	4	Ea.	3	$12,724	1321
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	4	Ea.	3	$11,408	1320
	Sub Total for System	**6**	**items**		**$80,052**	

DRAFT

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	3	Ea.	3	$9,094	Rollup
	Sub Total for System	**1**	**items**		**$9,094**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	3	Room	4	$33,563	1267
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$33,563**	
	Sub Total for Building 09 - Building 09	**27**	**items**		**$719,453**	

Building: 10 - Building 10

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	11,175	SF	1	$318,721	1284
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$318,721**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Window Requires Replacement	Capital Renewal	126	SF	2	$24,057	1273
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1286
Note: Windows are single-pane and likely original to the building.						
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	10,995	SF	4	$329,580	1272
Note: Wood veneer is cracked, faded, and in need of replacement.						
The Storefront/Curtain Wall Requires Replacement (Bldg SF)	Capital Renewal	180	SF	4	$14,511	1274
Note: Single-pane windows from 1957.						
	Sub Total for System	**4**	**items**		**$375,786**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
12 x 12 Floor Tiles Are Lifting or Broken and Highly Likely Contain Asbestos	Hazardous Material	9,925	SF	3	$283,070	1280
Note: 12x12 and 9x9 tiles should be replaced.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	400	SF	3	$190	6524
Note: Café stage acoustic ceiling						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	6,510	SF	4	$251,078	Rollup
The Wood Ceiling Tiles Require Replacement	Capital Renewal	11,175	SF	4	$74,368	1276
Note: Wood ceiling shows signs of staining and wear and tear.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	5,588	SF	5	$36,922	1279
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**5**	**items**		**$645,628**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	4	Ea.	2	$40,492	1064
Note: Low efficiency units with pilot lights should be replaced.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	11,175	SF	3	$164,285	2866
	Sub Total for System	**2**	**items**		**$204,778**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Switchgear Is Needed Or Requires Replacement	Capital Renewal	1	Ea.	2	$19,280	1067
The Distribution Panel Requires Replacement	Capital Renewal	1	Ea.	2	$29,129	1069
The Lighting Fixtures Require Replacement	Capital Renewal	11,175	SF	2	$66,400	1328
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,799	1066
Note: Panel was previously used for stage lighting. Only the breakers are still functional.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,799	1068
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1071
The Mounted Building Lighting Requires Replacement	Capital Renewal	8	Ea.	3	$11,941	1102
Note: Building mounted lighting is corroded and non-functional.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	4	Ea.	5	$2,009	Rollup
	Sub Total for System	**8**	**items**		**$145,207**	

DRAFT

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Backflow Preventer Requires Replacement	Capital Renewal	1	Ea.	2	$3,921	1065
Note: Backflow preventer is corroded and leaking.						
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,160	2864
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	11,175	SF	3	$89,913	1330
Note: Corrosion at meter.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	2	Ea.	3	$14,755	1336
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	6	Ea.	3	$19,086	1333
Note: Restroom lavatories are stained and leaking.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$6,362	1335
Note: Lavatories are stained and leaking.						
The Showers Plumbing Fixtures Require Replacement	Capital Renewal	4	Ea.	3	$30,422	1070
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	6	Ea.	3	$17,113	1331
Note: Toilets are stained and leaking.						
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	1	Ea.	3	$1,329	1337
Note: Urinal is non-functional.						
	Sub Total for System	**9**	**items**		**$186,061**	
	Sub Total for Building 10 - Building 10	**29**	**items**		**$1,876,181**	

Building: 11 - Building 11

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	2,500	SF	1	$71,302	1308
Note: Roof has not been replaced or fully repaired in recent memory and is likely original to building.						
	Sub Total for System	**1**	**items**		**$71,302**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1299
The Wood Exterior Requires Replacement	Capital Renewal	2,500	SF Wall	2	$56,281	1295
Note: Wood veneer is cracked, faded, and in need of replacement.						
The Wood Window Requires Replacement	Capital Renewal	96	SF	2	$18,329	1297
Note: Single-pane windows from 1957.						
The Wood Window Requires Replacement	Capital Renewal	40	SF	2	$7,637	1309
Note: Windows are single-pane and likely original to the building.						
The Wood Window Requires Replacement	Capital Renewal	60	SF	2	$11,456	1310
Note: Windows are single-pane and likely original to the building.						
	Sub Total for System	**5**	**items**		**$100,121**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	2,500	SF	3	$1,188	1311
Note: Acoustic tiles are likely original to the building and in need of replacement.						
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	2,250	SF	3	$64,172	1304
Note: VCT is likely original to building and is stained and faded.						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	125	SF	3	$3,357	1306
Note: Tile is likely original to building, and is worn and chipped.						
Ceiling Grid Requires Replacement	Capital Renewal	2,500	SF	4	$29,651	1301
Note: Grid system is original to the building and in need of replacement.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	2,500	SF	5	$16,518	1303
Note: Interior walls are chipped and faded and should be repainted.						
	Sub Total for System	**5**	**items**		**$114,887**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Furnace HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$6,936	1338
Note: Heat exchangers are rusted.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,500	SF	3	$36,753	2867
	Sub Total for System	**2**	**items**		**$43,689**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	2,500	SF	2	$14,855	1342
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	1339

DRAFT

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$4,018	Rollup
	Sub Total for System	**3**	**items**		**$23,722**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	1	Ea.	3	$2,576	1346
Note: Mop sink is corroded and leaking.						
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,113	1340
Note: Corrosion at connections.						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	2,500	SF	3	$20,115	1343
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$6,362	1344
Note: Restroom lavatories are stained, rusted, and leaking.						
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$5,704	1345
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	1	Ea.	4	$10,220	1347
	Sub Total for System	**6**	**items**		**$48,090**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	2	Ea.	3	$6,062	Rollup
	Sub Total for System	**1**	**items**		**$6,062**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Cabinetry In Classes/Labs	Capital Renewal	2	Room	4	$22,376	1307
Note: Cabinetry is worn with surfaces peeling, chipped, or missing.						
	Sub Total for System	**1**	**items**		**$22,376**	
	Sub Total for Building 11 - Building 11	**24**	**items**		**$430,249**	
	Total for Campus	**318**	**items**		**$9,927,886**	

DRAFT

Dr. Harry L. Halliwell Memorial School - Life Cycle Summary Yrs 1-10

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)	470	LF	$31,597	3
Roadway Pavement	Asphalt	86	CAR	$284,533	3
Parking Lot Pavement	Asphalt	182	CAR	$602,151	3
Parking Lot Lighting	Pole Mounted Fixtures (Ea.)	3	Ea.	$23,205	5
Playfield Areas	ES Playgrounds	1	Ea.	$44,588	5
Pedestrian Pavement	Sidewalks - Asphalt	3,000	SF	$25,636	5
	Sub Total for System	**6**	**items**	**$1,011,709**	
	Sub Total for Building -	**6**	**items**	**$1,011,709**	

Building: 01 - Building 01

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware	12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	2,375	SF	$15,692	7
Interior Swinging Doors	Wood	10	Door	$46,109	10
	Sub Total for System	**3**	**items**	**$99,449**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Heat Generation	Furnace - Gas (150 MBH)	2	Ea.	$6,936	4
	Sub Total for System	**1**	**items**	**$6,936**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon	1	Ea.	$3,160	10
	Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	2,500	SF	$7,328	3
Note:	Sensors and pull stations				
	Sub Total for System	**1**	**items**	**$7,328**	
	Sub Total for Building 01 - Building 01	**6**	**items**	**$116,873**	

Building: 02 - Building 02

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware	12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	2,375	SF	$15,692	7
Interior Swinging Doors	Wood	10	Door	$46,109	10
	Sub Total for System	**3**	**items**	**$99,449**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon	1	Ea.	$3,160	10
	Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	2,500	SF	$7,328	3
	Sub Total for System	**1**	**items**	**$7,328**	
	Sub Total for Building 02 - Building 02	**5**	**items**	**$109,936**	

Building: 03 - Building 03

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware	12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	2,375	SF	$15,692	7

DRAFT

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Swinging Doors	Wood		10	Door	$46,109	10
		Sub Total for System	**3**	**items**	**$99,449**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon		1	Ea.	$3,160	10
		Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		2,500	SF	$7,328	3
		Sub Total for System	**1**	**items**	**$7,328**	
		Sub Total for Building 03 - Building 03	**5**	**items**	**$109,936**	

Building: 04 - Building 04

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware		12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		2,375	SF	$15,692	7
Interior Swinging Doors	Wood		10	Door	$46,109	10
		Sub Total for System	**3**	**items**	**$99,449**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon		1	Ea.	$3,160	10
		Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		2,500	SF	$7,328	3
		Sub Total for System	**1**	**items**	**$7,328**	
		Sub Total for Building 04 - Building 04	**5**	**items**	**$109,936**	

Building: 05 - Building 05

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware		24	Door	$75,295	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		4,750	SF	$31,385	7
Interior Swinging Doors	Wood		18	Door	$82,996	10
		Sub Total for System	**3**	**items**	**$189,676**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon		1	Ea.	$3,160	10
		Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		5,000	SF	$14,655	3
		Sub Total for System	**1**	**items**	**$14,655**	
		Sub Total for Building 05 - Building 05	**5**	**items**	**$207,491**	

Building: 06 - Administration Building

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware		20	Door	$62,746	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		2,500	SF	$16,518	7
Interior Swinging Doors	Wood		18	Door	$82,996	10
		Sub Total for System	**3**	**items**	**$162,260**	

DRAFT

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Lavatories	1	Ea.	$3,181	6
Note:	Kitchen				
Domestic Water Equipment	Water Heater - Gas - 40 gallon	1	Ea.	$3,160	10
	Sub Total for System	**2**	**items**	**$6,341**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	2,500	SF	$7,328	3
	Sub Total for System	**1**	**items**	**$7,328**	
	Sub Total for Building 06 - Administration Building	**6**	**items**	**$175,929**	

Building: 07 - Building 07

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware	12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	2,500	SF	$16,518	7
Interior Swinging Doors	Wood	10	Door	$46,109	10
	Sub Total for System	**3**	**items**	**$100,275**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon	1	Ea.	$3,160	10
	Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	2,500	SF	$7,328	3
	Sub Total for System	**1**	**items**	**$7,328**	
	Sub Total for Building 07 - Building 07	**5**	**items**	**$110,762**	

Building: 08 - Building 08

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware	12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	2,500	SF	$16,518	7
Interior Swinging Doors	Wood	10	Door	$46,109	10
	Sub Total for System	**3**	**items**	**$100,275**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Restroom Lavatories	2	Ea.	$6,362	6
Domestic Water Equipment	Water Heater - Gas - 40 gallon	1	Ea.	$3,160	10
	Sub Total for System	**2**	**items**	**$9,522**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	2,500	SF	$7,328	3
	Sub Total for System	**1**	**items**	**$7,328**	
	Sub Total for Building 08 - Building 08	**6**	**items**	**$117,124**	

Building: 09 - Building 09

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	E.I.F.S. - Bldg SF basis	1,250	SF	$25,788	7
	Sub Total for System	**1**	**items**	**$25,788**	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware	28	Door	$87,844	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	4,750	SF	$31,385	7
Interior Swinging Doors	Wood	20	Door	$92,218	10
	Sub Total for System	**3**	**items**	**$211,447**	

DRAFT

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon		1	Ea.	$3,160	10
		Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		5,000	SF	$14,655	3
		Sub Total for System	**1**	**items**	**$14,655**	
		Sub Total for Building 09 - Building 09	**6**	**items**	**$255,050**	

Building: 10 - Building 10

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Paneling	Wood Panel wall		5,587	SF	$50,991	5
Interior Door Supplementary Components	Door Hardware		31	Door	$97,256	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		5,588	SF	$36,922	7
Wood Flooring	Wood Flooring - All Types		1,170	SF	$38,820	10
Interior Swinging Doors	Wood		31	Door	$142,937	10
		Sub Total for System	**5**	**items**	**$366,926**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon		1	Ea.	$3,160	10
		Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		11,175	SF	$32,754	3
		Sub Total for System	**1**	**items**	**$32,754**	
		Sub Total for Building 10 - Building 10	**7**	**items**	**$402,840**	

Building: 11 - Building 11

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware		12	Door	$37,648	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		2,500	SF	$16,518	7
Interior Swinging Doors	Wood		10	Door	$46,109	10
		Sub Total for System	**3**	**items**	**$100,275**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 40 gallon		1	Ea.	$3,160	10
		Sub Total for System	**1**	**items**	**$3,160**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		2,500	SF	$7,328	3
		Sub Total for System	**1**	**items**	**$7,328**	
		Sub Total for Building 11 - Building 11	**5**	**items**	**$110,762**	
		Total for: Dr. Harry L. Halliwell Memorial School	**67**	**items**	**$2,838,350**	

DRAFT

Supporting Photos

Site Aerial

Displaced Roof Shingles

Kitchen Sink

Building Mounted Light

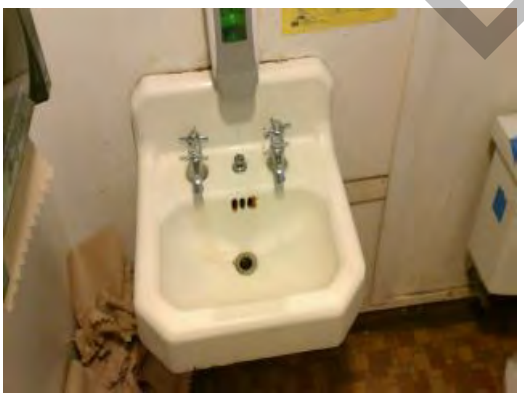
DRAFT

Exterior Door


Exterior Windows


Window Unit


Single Pane Window


Typical Lavatory Fixture


Mop Sink

DRAFT


Aged Panel


Wood Exterior


Urinal Out Of Service


Typical Classroom


Typical Acoustic Tile


Aged Panelboard

DRAFT


Fence Falling Down


Building 4 Roof


Typical Worn VCT


Typical Worn Handrail


Rudimentary ECS


Lavatory

DRAFT


Gymnasium/Cafeteria And Stage


Building 8 Roof


Furnace


Backflow Preventer

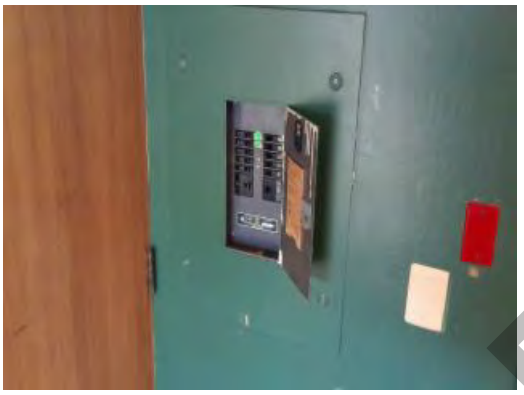

Building Mounted Light

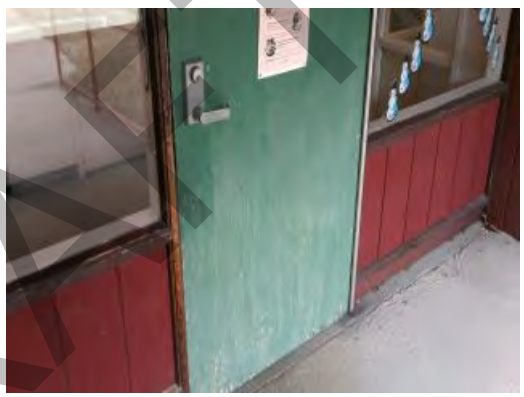

Typical Window

DRAFT


Stained Wood Exterior


Shingles Missing From Building 2 Roof


Aged Panelboard


Faded Exterior Door


Aged Panelboard

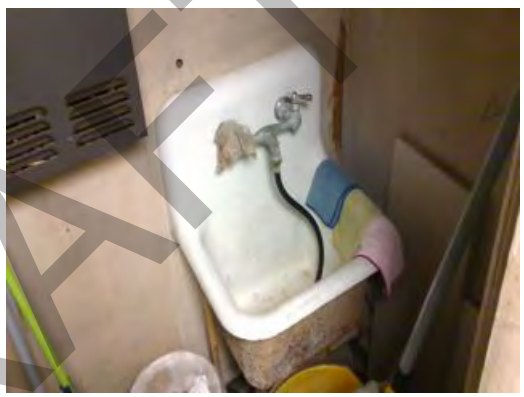

Playground

DRAFT

Water Heater


Weathered Wood Exterior


Chipped And Faded Exterior Door


Stained Service Sink


Typical Toilet Fixture

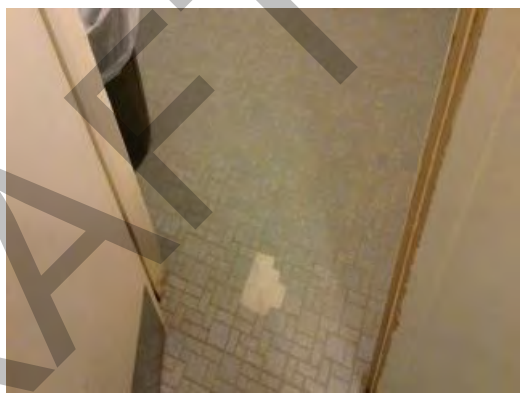

Exterior Wood Panel

DRAFT


Furnace


Typical Window


Chipped And Faded Interior Walls


Missing Tiles


Composition Roof


Chipped And Worn Cabinetry

DRAFT

Furnace And Water Heater


Stained Wood Decking

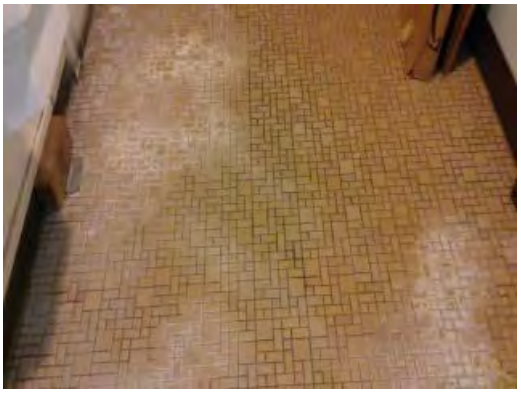

Exterior Finishes

Faded Exterior Door


Original Grid System


Aged Panelboard

DRAFT


Stained And Faded VCT


Library


Corroding Furnace


Shingle Roof

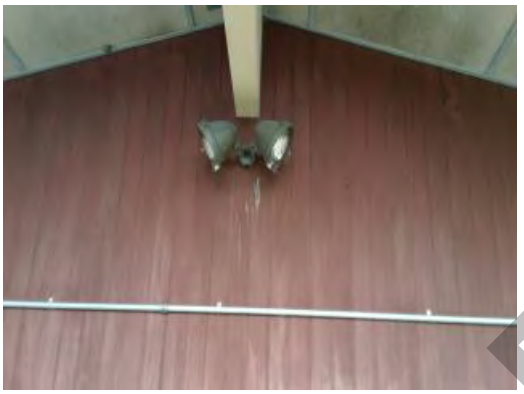

Main Disconnect

Rusted Water Heater

DRAFT


Gas Service Valve


Basketball Goal


Building Mounted Light

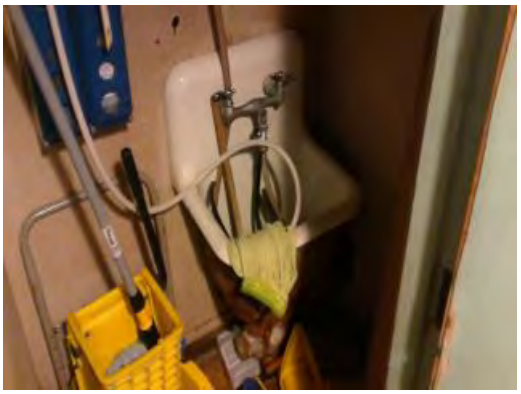

Typical Student Restroom

Exterior Door


Toilet Out Of Service

DRAFT


Exterior Door


Typical Service Sink


Typical Wood Veneer Fading


Music Room


Water Fountain


Furnace

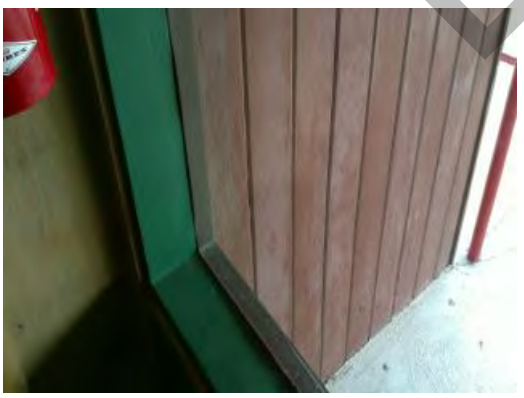
DRAFT

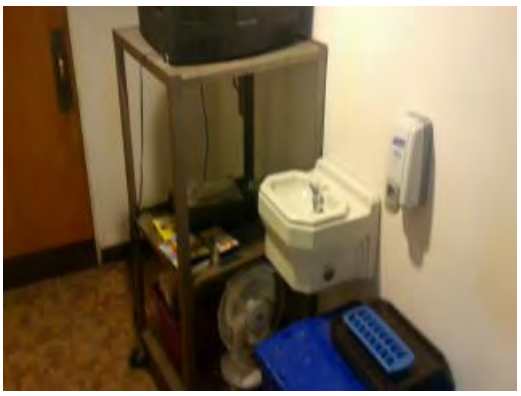

Chipped And Faded Exterior Door


Aged Furnaces


Gym Furnaces


Building 10


Original Single Pane Window

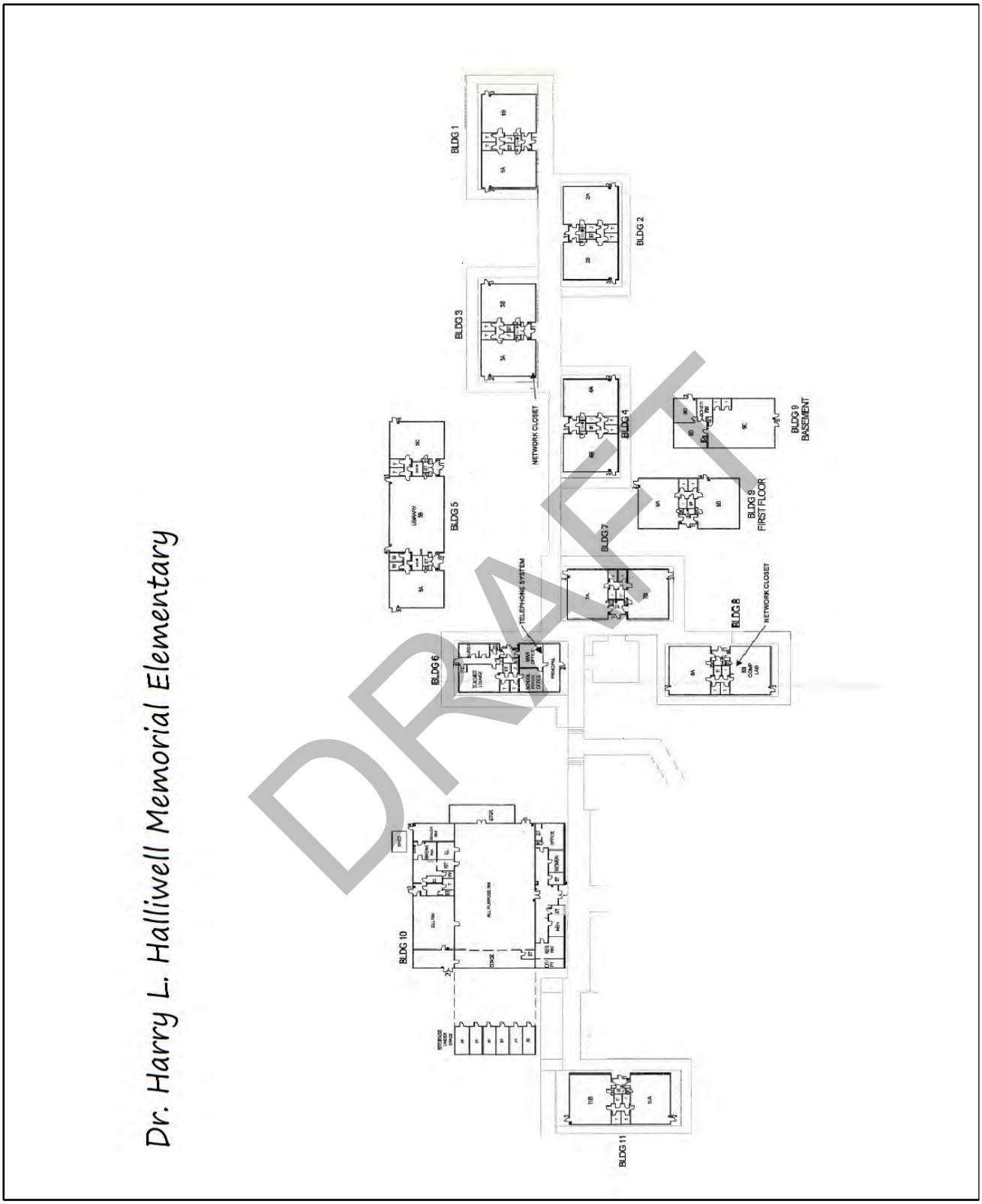

Drinking Fountain

DRAFT

Building 3 Exterior

Floor_Plan

DRAFT


Dr. Harry L. Halliwell Memorial Elementary
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 7
BLDG 8
BLDG 9
BLDG 9
FIRST FLOOR
BLDG 9
BASEMENT
BLDG 10
BLDG 11
NETWORK CLOSET
TELEPHONE SYSTEM
NETWORK CLOSET
DRAFT

Floor_Plan

Facility Condition Assessment

North Smithfield Elementary School | *October 2016*

Address: 2214 Providence Pike, North Smithfield, RI 02896

Report Generated: October 06, 2016

DRAFT

Executive Summary

North Smithfield Elementary School, located at 2214 Providence Pike in North Smithfield, Rhode Island, was built in 1989. It comprises 75,000 gross square feet. Data in this report was collected in the spring/summer of 2016.

North Smithfield Elementary School has an enrollment of 424, serves grades PK - 3, and has 26 classrooms. The LEA reported capacity for North Smithfield Elementary School is 605 with a resulting utilization of 70.00%. For master planning efforts, a RIDE Model Program Standard was established based on the RIDE School Construction Regulations. Applying RIDE's Model Program Standard, a facility of this size could ideally support an enrollment of approximately 469 students.

The total current deficiencies for this campus, in 2016 construction cost dollars, are estimated at $8,118,965. For master planning purposes a five-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For North Smithfield Elementary School the five-year need is $10,117,240. The findings contained within this report resulted from an assessment of building systems. Assessments were performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous material, and technology infrastructure.

Figure 1: Aerial view of North Smithfield 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 the ages of a building's systems to forecast system replacement as it reaches the end of its 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.

All members of the survey team recorded existing conditions, identified problems and deficiencies, and documented corrective action and quantities. The team took digital photos at each school to better identify significant deficiencies.

Discipline Specialists

All assessment teams produced current deficiencies that are 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 was incorporated 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.

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

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialist 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: 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. Also, onsite personnel conducted an initial evaluation from data collected during the facility condition assessment. Based on the 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 acoustic, 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 systems noise and vibration control.

Educational Space Analysis: The evaluation of 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 create a listing of alterations that should be made to make the space a better environment for teaching and learning.

DRAFT

System Summaries

The following tables summarize major building systems at North Smithfield Elementary School campus, identified by discipline and building.

Site

The site level systems for this campus includes:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the buildings at this campus includes:

01 - Main Building:	Brick Exterior Wall
	CMU Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors

The roofing for the buildings at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	EPDM Roofing

Interior

The interior systems for the buildings at this campus includes:

01 - Main Building:	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Door Hardware
	Painted Ceilings
	Ceramic Tile Wall
	CMU Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Epoxy Coated Flooring
	Carpet
	Athletic/Sport Flooring

DRAFT

Mechanical

The mechanical systems for the buildings at this campus includes:

01 - Main Building:	1,275 MBH Cast Iron Water Boiler
	3,264 MBH Cast Iron Water Boiler
	Steam/Hot Water Heating Unit Vent
	Fin Tube Water Radiant Heater
	Pneumatic Heating System Controls
	3 Ton Condensing Unit
	5 Ton Package DX Unit
	Make-up Air Unit
	5 HP Pump
	10 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	Roof Exhaust Fan

Plumbing

The plumbing systems for the buildings at this campus includes:

01 - Main Building:	1,000 Gallon Water Storage Tank
	250 Gallon Water Storage Tank
	Gas Piping System
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Air Compressor (2 hp)

Electrical

The electrical systems for the buildings at this campus includes:

01 - Main Building:	800 Amp Switchgear
	400 Amp Distribution Panel
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Light Fixtures
	Building Mounted Lighting Fixtures

DRAFT

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, re-carpeting, improved signage, or other improvements to the facility environment.

DRAFT

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

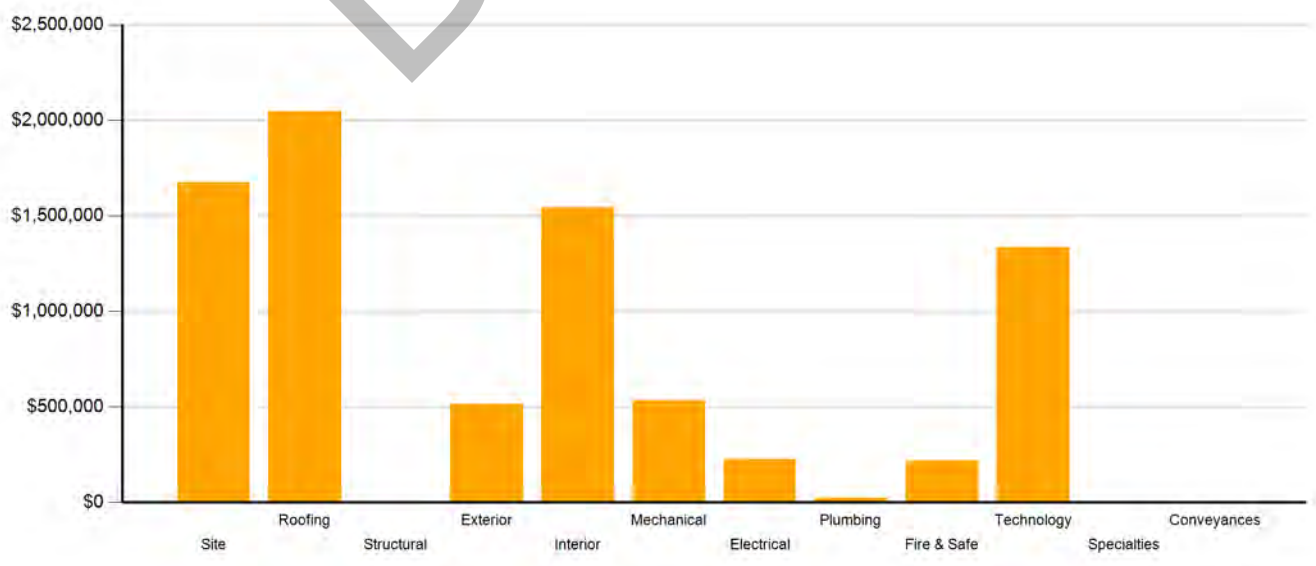
	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$1,311,648	$356,127	$5,878	$1,673,653	20.61 %
Roofing	$2,045,815	-	-	-	-	$2,045,815	25.20 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	$7,837	$506,478	-	$514,315	6.33 %
Interior	-	-	$1,306,621	$119,963	$119,004	$1,545,589	19.04 %
Mechanical	-	-	$31,585	$503,191	-	$534,776	6.59 %
Electrical	-	-	$148,398	-	$75,837	$224,235	2.76 %
Plumbing	$189	-	$2,867	-	$22,586	$25,642	0.32 %
Fire and Life Safety	$218,345	-	-	-	-	$218,345	2.69 %
Technology	-	-	$1,336,595	-	-	$1,336,595	16.46 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	-	-	-	$0	0.00 %
Total	$2,264,349	$0	$4,145,551	$1,485,760	$223,305	$8,118,965	

The building systems at the campus with the most need include:

Roofing	-	$2,045,815
Interior	-	$1,931,050
Site	-	$1,673,653

The table below represents the building systems and their percentages for overall campus need.

Figure 2: System Deficiencies



DRAFT

Current Deficiencies by Category

The deficiencies have been further grouped according to the observed deficiency category and priority.

- **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 and Rhode Island Governors Commission on Disability. Additional items 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 deficiency correcting planned work postponed beyond its regular life expectancy.

- **Code compliance** deficiencies relate 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 and are reflected in the master plan.

- **Educational adequacy** includes deficiencies identify how facilities align with the Basic Education Program and the RIDE School Construction Regulations.

- **Functional deficiencies** are deficiencies for a component or system that has failed before the end of its expected life or is 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 dedicate air conditioning for telecommunication rooms.

- **Traffic** site deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

DRAFT

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

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	$13,938	-	$13,938
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	$2,046,004	-	$1,169,154	$936,670	$115,506	$4,267,333
Code Compliance	$218,345	-	-	-	-	$218,345
Educational Adequacy	-	-	$17,921	$535,152	$107,799	$660,873
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	$1,306,621	-	-	$1,306,621
Technology	-	-	$1,321,541	-	-	$1,321,541
Traffic	-	-	$330,314	-	-	$330,314
Total	$2,264,349	$0	$4,145,551	$1,485,760	$223,305	$8,118,965

DRAFT

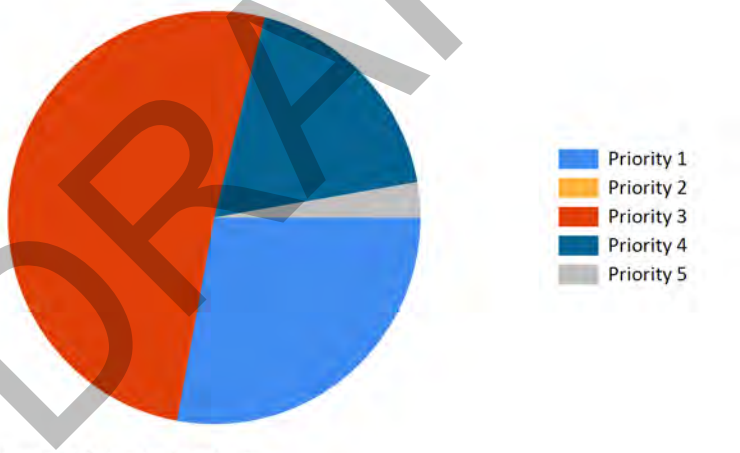


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

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

However, 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 10-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 the end of it's life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 10-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	Year 6 2022	Year 7 2023	Year 8 2024	Year 9 2025	Year 10 2026	Total	$/GSF
Site	$1,673,653	$0	$0	$44,588	$0	$0	$0	$12,101	$0	$0	$0	$56,689	$0.76
Roofing	$2,045,815	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Structural	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Exterior	$514,315	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Interior	$1,545,589	$0	$163,171	$3,803	$190,316	$55,216	$519,490	$633,525	$0	$0	$1,514,238	$3,079,759	$41.06
Mechanical	$534,776	$0	$0	$14,416	$913,399	$106,008	$0	$49,285	$509,956	$304,466	$578,114	$2,475,644	$33.01
Electrical	$224,235	$0	$0	$0	$0	$492,603	$0	$49,342	$0	$0	$0	$541,945	$7.23
Plumbing	$25,642	$0	$0	$14,755	$0	$0	$205,316	$91,039	$0	$0	$6,383	$317,493	$4.23
Fire and Life Safety	$218,345	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Technology	$1,336,595	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Specialties	$0	$0	$0	$0	$0	$0	$425,136	$0	$0	$0	$0	$425,136	$5.67
Total	**$8,118,965**	**$0**	**$163,171**	**$77,562**	**$1,103,715**	**$653,827**	**$1,149,942**	**$835,292**	**$509,956**	**$304,466**	**$2,098,735**	**$6,896,666**	**$91.96**

DRAFT

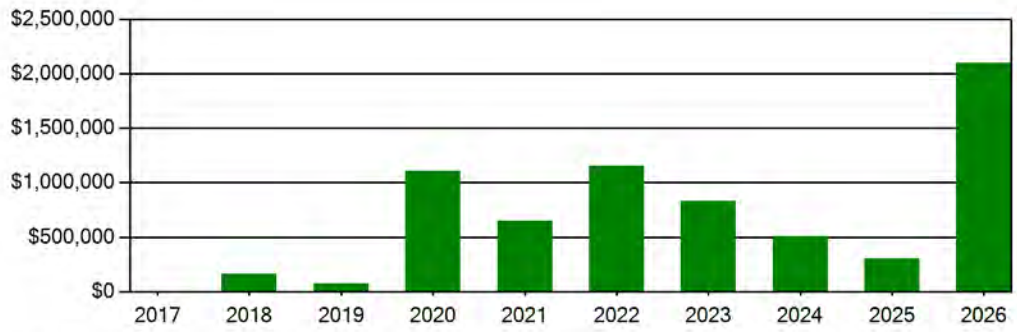


Figure 4: Life Cycle Capital Renewal Forecast

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 National Association of College and University Business Officers has suggested for college planning that an FCI of less than 5 percent is good, an FCI between 5 and 10 percent is fair, and an FCI greater than 10 percent is poor. In K-12 public school planning, the gulf between 10 percent and 100 percent is just not stratified enough. Jacobs has used the following ranges to provide a little more gradation. FCI's less than 10 percent are considered good, 10 to 60 percent is fair, and anything greater than 60 percent is poor. Financial modeling has shown that over a 30-year period, schools that fall in the 65 percent or greater range are more cost-effective to replace than to repair. This is due to efficiency gains with more modern facilities 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/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 decision.

The FCI is calculated by dividing the total repair cost, including site-related repairs, by the total replacement cost. Costs associated with new construction are not included in the FCI calculation. As a general rule, an FCI below 10% is considered good. An economic analysis generally suggests that FCIs greater than 65 percent represent the point where facilities should be considered for replacement. This value typically indicates the point where further expenditures on a building offer little return when compared to the potential cost of replacing that facility.

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 $26,250,000. The total current cost for all deficiencies is $8,118,965.

The North Smithfield Elementary School facility has an overall FCI of 30.93%.

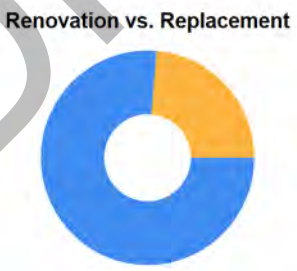


Figure 5: Renovation vs Replacement

DRAFT

Five Year FCI

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. For planning purposes, the total five-year need at North Smithfield Elementary School is $10,117,240 (Life Cycle Yrs 1-5 plus the Current Deficiencies)

A five year FCI was calculated by dividing the five year need by the total replacement cost. The North Smithfield Elementary School facility has a five year FCI of 38.54% (Life Cycle Yrs 1-5 plus Current Deficiencies divided by the Total Replacement Cost).

Summary of Findings

The table below summarizes the condition findings at North Smithfield Elementary School.

Table 4: Facility Condition by Building

Number	Building Name	Gross Sq Ft	Built Date	Current Deficiencies	FCI	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
	Exterior Site			$2,310,739		$2,355,327	
01	Main Building	75,000	1989	$5,808,226	22.13%	$7,761,913	29.57%
Totals		**75,000**		**$8,118,965**	**30.93%**	**$10,117,240**	**38.54%**

The following pages provide a listing of all current deficiencies and 10 year life cycle need for the site and building and the associated costs, followed by photos taken during the assessment.

DRAFT

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Paving Requires Replacement	Capital Renewal	116	CAR	3	$381,204	1530
Note: Cracking pavement						
Asphalt Paving Requires Replacement	Capital Renewal	146	CAR	3	$479,791	1544
Note: Cracking, splitting, and failing.						
Concrete Walks Require Replacement	Capital Renewal	5,200	SF	3	$105,570	1886
Note: Cracked and broken.						
Fencing Requires Replacement (4' Chain Link Fence)	Capital Renewal	230	LF	3	$14,769	1543
Note: Fence falling and requires replacement.						
Install New Paving	Traffic	15,900	SF	3	$330,314	4459
Note: Add second entrance from Mowry Farms Lane						
Asphalt Paving Requires Replacement	Capital Renewal	95	CAR	4	$312,193	1531
Note: Paved play areas splitting and cracking.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,674	28526
Note: Backstops Require Replacement						
Exterior Basketball Goals Require Replacement	Capital Renewal	2	Ea.	4	$15,260	1542
Note: Basketball goals are damaged.						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,878	28768
Note: Exterior Basketball Goals are Required						
	Sub Total for System	**9**	**items**		**$1,673,653**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Cafeteria does not meet standard size	Educational Adequacy	757	SF	4	$506,478	53354
Note: Cafeteria does not meet required RI standard for space size. (Std=3562.5 sf, Current=2805 sf)						
	Sub Total for System	**1**	**items**		**$506,478**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Requires Replacement	Capital Renewal	17	Ea.	3	$130,607	1522
Note: Pole and units rusted.						
	Sub Total for System	**1**	**items**		**$130,607**	
	Sub Total for School and Site Level	**11**	**items**		**$2,310,739**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
EPDM Roofing Requires Replacement (Bldg SF)	Capital Renewal	5,000	SF	1	$62,796	1554
Note: Original roof.						
Shingle Roof Requires Replacement	Capital Renewal	70,000	SF	1	$1,983,020	1553
Note: Roof is original to both 1989 and 2002 buildings.						
	Sub Total for System	**2**	**items**		**$2,045,815**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Exterior Metal Door Requires Repainting	Capital Renewal	30	Door	3	$6,187	1550
Note: Metal exit doors are chipped and faded and should be repainted.						
Location: 1989 Building						
Exterior Metal Door Requires Repainting	Capital Renewal	8	Door	3	$1,650	1555
Note: Doors are chipped, worn, faded, and should be repainted.						
Location: 2002 Addition						
	Sub Total for System	**2**	**items**		**$7,837**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
12 x 12 Floor Tiles Are Lifting or Broken and Highly Likely Contain Asbestos	Hazardous Material	45,010	SF	3	$1,275,082	1557
Note: VCT is stained, cracked, and chipping throughout building.						
Acoustic ceiling tile - large area (>10%) of broken or falling broken tiles	Hazardous Material	39,600	SF	3	$18,697	1556
Note: Many tiles throughout building are stained, bulging, or are falling out of the grid due to the unusual layout of the classroom ceilings.						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	400	LF	3	$7,554	6339
Note: Doors and Brick Joints Doors and Joints						

DRAFT

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Paint (probable pre-1978 in base layer(s)) -large areas (> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - square feet)	Hazardous Material	200	SF	3	$1,889	6334
Note: Boys Bathroom Metal Stalls						
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	12	Ea.	3	$3,399	6340
Note: Doors 2, 3, 4, 5, 12, 15, 16, 17, 18, 19, 20, 21 Doors						
Ceiling Grid Requires Replacement	Capital Renewal	9,000	SF	4	$106,026	1551
Note: Portions of the grid system in wings A and B are bent out of shape.						
Partitions Provide Insufficient Sound Isolation	Acoustics	492	SF	4	$13,938	4714
Note: All walls adjacent to gym						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	17,600	SF	5	$115,506	1552
Note: Rooms #20 and #21 have cracks in painted walls above the coat area. Most painted areas in the facility require repainting due to wear and tear.						
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	$3,498	Rollup
	Sub Total for System	**9**	**items**		**$1,545,589**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Make Up Air Equipment Requires Replacement	Capital Renewal	2	Ea.	3	$31,585	1477
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	75,000	SF	4	$503,191	1872
Note: Pneumatics system is leaking.						
	Sub Total for System	**2**	**items**		**$534,776**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Mounted Building Lighting Requires Replacement	Capital Renewal	12	Ea.	3	$17,791	1524
Note: Units broken or missing.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	152	Ea.	5	$75,837	Rollup
	Sub Total for System	**2**	**items**		**$93,628**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Gas Piping Requires Repair	Capital Renewal	100	LF	1	$189	1545
Note: Piping and main valves rusted and in need of paint.						
The Toilets Plumbing Fixtures Require Replacement	Educational Adequacy	1	Ea.	3	$2,867	Rollup
Room lacks a drinking fountain.	Educational Adequacy	19	Ea.	5	$21,066	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	1	Ea.	5	$1,520	Rollup
	Sub Total for System	**4**	**items**		**$25,642**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Alarm Is Missing Or Inadequate	Code Compliance	75,000	SF	1	$218,345	1547
Note: Sensors and pulls failing.						
	Sub Total for System	**1**	**items**		**$218,345**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	5	Ea.	3	$15,054	Rollup
Technology: Campus lacks security electronic access control.	Technology	2	Ea.	3	$15,109	3919
Note: Key scan Access Control System add Access Control with 2doors						
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	1	Ea.	3	$9,443	3916
Note: Refresh AV system in Library.						
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	30	Ea.	3	$594,906	3917
Note: Technology: Add new classroom AV/Multimedia systems to support digital formats.						
Technology: Gymnasium sound system is nonexisitant, inadequate, or near end of useful life.	Technology	1	Ea.	3	$9,065	3921
Note: Refresh gym audio system						
Technology: Instructional spaces do not have local sound reinforcement.	Technology	50	Ea.	3	$236,074	3914
Note: Add sound reinforcement found in instructions spaces						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3911
Note: IDF Admin needs grounding system improvements.						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3910
Note: IDF Admin needs to be rezoned. space isn't dedicated, hard to access, equipment on surge protector, room house 110 pa access control						
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$4,721	3913
Note: IDF Admin: Add Intermediate Telecommunications Room UPS.						

DRAFT

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	3908
Note: MDF has no ground system.						
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$49,859	3906
Note: Miff - storage UPS on floor, servers and KVM is on adjacent shelves. Dedicate/create new space						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	114	Ea.	3	$48,442	3909
Note: MDF Existing category 5 cables serviced by this space.						
Technology: Number of current, up to date, network switch ports are insufficient to support campus technology.	Technology	144	Ea.	3	$67,989	24961
Note: Classrooms have 3 connections, expand port availability.						
Technology: Security cameras and recording system are inadequate and/or near end of useful life.	Technology	25	Ea.	3	$118,037	3920
Note: Analog/Digital Hybrid camera system with 5 analog Cameras refresh and add 25 additional IP Cameras						
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$53,825	3915
Note: Add AV system to cafetorium.						
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$7,554	3907
Note: MDF does not have dedicated AC unit, since it is MDF it is considered large size.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3912
Note: IDF Admin needs dedicated AC unit.						
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	30	Ea.	3	$45,326	3923
Note: Replace/add telephone handsets in classrooms and office spaces.						
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,177	3922
Note: Phone system is aging Toshiba Strata analog, replace.						
Sub Total for System		**19**	**items**		**$1,336,595**	
Sub Total for Building 01 - Main Building		**41**	**items**		**$5,808,226**	
Total for Campus		**52**	**items**		**$8,118,965**	

DRAFT

North Smithfield Elementary School - Life Cycle Summary Yrs 1-10

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Playfield Areas	ES Playgrounds	1	Ea.	$44,588	3
Fences and Gates	Fencing - Chain Link (8 Ft)	180	LF	$12,101	7
Note:	Fence around propane tanks				
	Sub Total for System	**2**	**items**	**$56,689**	
	Sub Total for Building -	**2**	**items**	**$56,689**	

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet	7,500	SF	$163,171	2
Fluid-Applied Flooring	Epoxy Coating	200	SF	$3,803	3
Resilient Flooring	Vinyl Composition Tile Flooring	16,590	SF	$190,316	4
Suspended Plaster and	Painted ceilings	13,200	SF	$55,216	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System	43,800	SF	$519,490	6
Suspended Plaster and	Painted ceilings	4,400	SF	$18,405	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	17,600	SF	$116,289	7
Interior Door Supplementary Components	Door Hardware	159	Door	$498,831	7
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	13,200	SF	$119,217	10
Acoustical Suspended Ceilings	Exposed Tectum Ceilings	4,600	SF	$341,285	10
Carpeting	Carpet	7,500	SF	$163,171	10
Athletic Flooring	Athletic/Sport Flooring	4,600	SF	$157,435	10
Interior Swinging Doors	Wood	159	Door	$733,130	10
	Sub Total for System	**13**	**items**	**$3,079,762**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Decentralized Cooling	Package DX Unit (5 Ton)	1	Ea.	$14,416	3
Decentralized Heating Equipment	Heating Unit Vent - Steam/Hot water	54	Ea.	$913,399	4
Exhaust Air	Roof Exhaust Fan	19	Ea.	$98,878	5
Decentralized Cooling	Condensing Unit (3 Ton)	1	Ea.	$7,130	5
Note:	Tied into PC lab				
Facility Hydronic Distribution	Pump - 5HP	2	Ea.	$19,060	7
Note:	2 @ 3 hp pressure pumps				
Facility Hydronic Distribution	Pump- 10HP (Ea.)	2	Ea.	$30,225	7
Note:	2 @ 7.5 hp circulating pumps				
Decentralized Heating Equipment	Radiant Heater - Fin Tube Water	67	Ea.	$509,956	8
Decentralized Heating Equipment	Heating Unit Vent - Steam/Hot water	18	Ea.	$304,466	9
Facility Hydronic Distribution	2-Pipe Water System (Hot)	75,000	SF	$578,114	10
	Sub Total for System	**9**	**items**	**$2,475,645**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Electrical Service	Switchgear - Main Dist Panel (800 Amps)	2	Ea.	$46,964	5
Lighting Fixtures	Light Fixtures (Bldg SF)	75,000	SF	$445,639	5
Note:	Sensors added for occupancy				
Power Distribution	Panelboard - 120/208 225A	6	Ea.	$34,796	7
Power Distribution	Panelboard - 120/208 100A	3	Ea.	$14,546	7
	Sub Total for System	**4**	**items**	**$541,945**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain	2	Ea.	$14,755	3
Plumbing Fixtures	Classroom Lavatories	8	Ea.	$21,752	6
Plumbing Fixtures	Lavatories	9	Ea.	$28,629	6
Plumbing Fixtures	Toilets	25	Ea.	$71,302	6
Plumbing Fixtures	Restroom Lavatories	23	Ea.	$73,164	6
Plumbing Fixtures	Mop/Service Sinks	2	Ea.	$5,153	6

DRAFT

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Urinal (Ea.)	4	Ea.	$5,316	6
Facility Potable-Water Storage Tanks	Water Storage Tank - 1000 Gallon	2	Ea.	$91,039	7
Note:	2 @ 1,500 gallons				
Compressed-Air Systems	Air Compressor (2 hp)	1	Ea.	$6,383	10
	Sub Total for System	**9**	**items**	**$317,493**	

Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry	25	Room	$279,695	6
Casework	Fixed Cabinetry	13	Room	$145,441	6
	Sub Total for System	**2**	**items**	**$425,136**	
	Sub Total for Building 01 - Main Building	**37**	**items**	**$6,839,981**	
	Total for: North Smithfield Elementary School	**39**	**items**	**$6,896,669**	

DRAFT

Supporting Photos

Site Aerial

Damaged Asphalt

Pneumatics System Leaking

Typical Boys Restroom - 1989 Building

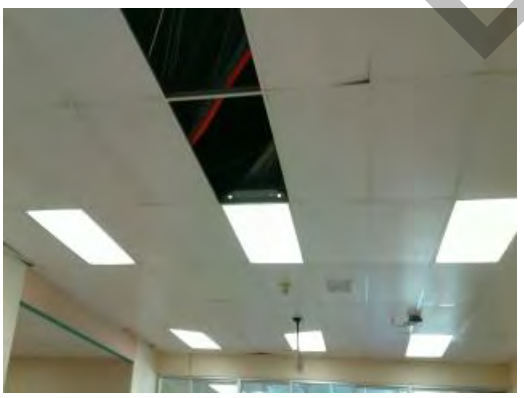
DRAFT


Ceiling Tile Falling Out Of Grid


Rusted Pole Mounted Lights


Gymnasium


Typical Girls Restroom - 2002 Addition


Missing Or Stained Ceiling Tiles


Damaged Fence

DRAFT

2002 Dedication Plaque


Typical Classroom - 1989 Building


Original Building Exterior Finishes


Main Distribution Panel


PH Controls & Tank


2002 Addition Exterior

DRAFT

Typical Worn Metal Exterior Doors

Propane Tanks

Cracking Asphalt Paving

Main Entrance

Typical Exterior Doors

1989 Dedication Plaque

DRAFT

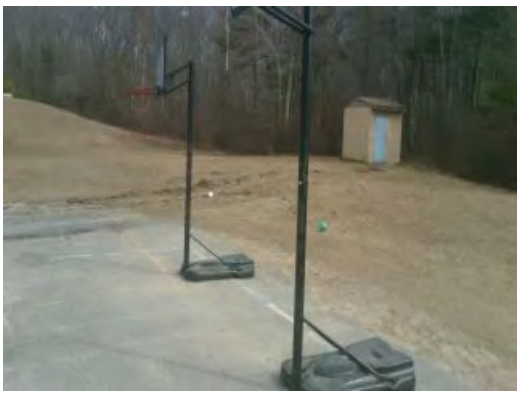

Cafeteria And Stage


Boys 2002 Addition Restroom

Boilers

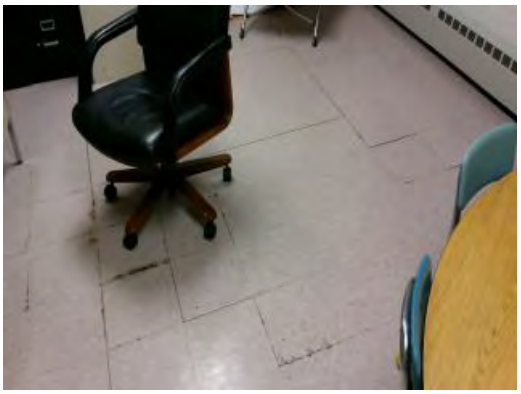

Music Room


Entry Sign On Driveway


Damaged Basketball Goals

DRAFT


Pressure Pumps


Typical Worn VCT


Pressure Tank


Original Shingle Roof


Bent Ceiling Grid


Broken Building Mounted Light

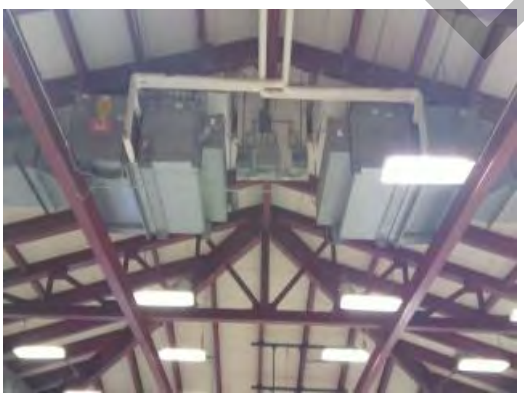
DRAFT


Cracks In Painted Walls


Controls


Water Treatment

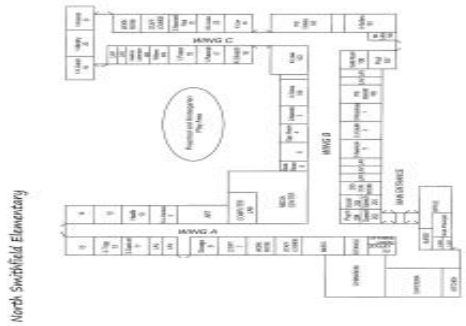

Damaged Play Area Asphalt


Make Up Air


Cracked, Worn Play Area Asphalt

DRAFT

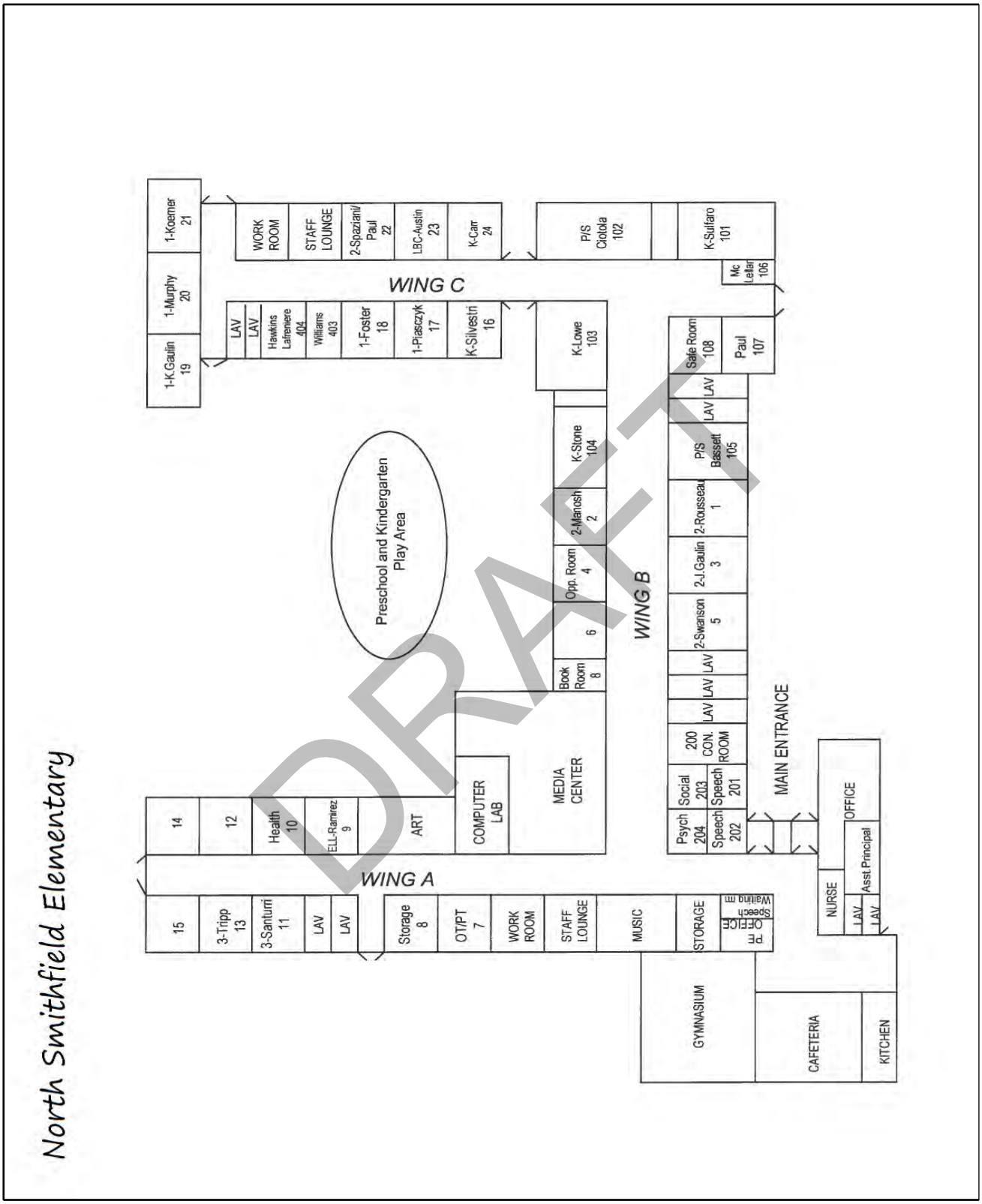
Library



Floor_Plan

Front Elevation

DRAFT


North Smithfield Elementary
WING A
WING B
WING C
DRAFT
Preschool and Kindergarten Play Area
MAIN ENTRANCE
1-Koemer 21
1-Murphy 20
1-K.Gaulin 19
WORK ROOM
STAFF LOUNGE
2-Spaziani/ Paul 22
LBC-Austin 23
K-Carr 24
P/S Ciotola 102
K-Sulfaro 101
Mc Lellan 106
LAV
LAV
Hawkins Lafreniere 404
Williams 403
1-Foster 18
1-Piasczyk 17
K-Silvestri 16
K-Lowe 103
Safe Room 108
Paul 107
LAV LAV
P/S Bassett 105
K-Stone 104
2-Manosh 2
2-Rousseau 1
Opp. Room 4
2-J.Gaulin 3
6
2-Swanson 5
Book Room 8
LAV LAV LAV
200 CON. ROOM
Social 203
Speech 201
Psych 204
Speech 202
14
12
Health 10
ELL-Ramirez 9
ART
COMPUTER LAB
MEDIA CENTER
OFFICE
Asst.Principal
NURSE
LAV
LAV
15
3-Tripp 13
3-Santurri 11
LAV
LAV
Storage 8
OT/PT 7
WORK ROOM
STAFF LOUNGE
MUSIC
STORAGE
Speech Waiting
OFFICE
GYMNASIUM
CAFETERIA
KITCHEN

Floor_Plan

Facility Condition Assessment

North Smithfield High School | *October 2016*

Address: 412 Greenville Road, North Smithfield, RI 02896

Report Generated: October 06, 2016

DRAFT

Executive Summary

North Smithfield High School, located at 412 Greenville Road in North Smithfield, Rhode Island, was built in 1967. It comprises 147,970 gross square feet. Data in this report was collected in the spring/summer of 2016.

North Smithfield High School has an enrollment of 496, serves grades 9 - 12, and has 35 classrooms. The LEA reported capacity for North Smithfield High School is 690 with a resulting utilization of 72.00%. For master planning efforts, a RIDE Model Program Standard was established based on the RIDE School Construction Regulations. Applying RIDE's Model Program Standard, a facility of this size could ideally support an enrollment of approximately 747 students.

The total current deficiencies for this campus, in 2016 construction cost dollars, are estimated at $21,092,586. For master planning purposes a five-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For North Smithfield High School the five-year need is $21,444,910. The findings contained within this report resulted from an assessment of building systems. Assessments were performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous material, and technology infrastructure.

Figure 1: Aerial view of North Smithfield High School

Approach and Methodology

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

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

Life Cycle Forecast: Life cycle analysis evaluates the ages of a building's systems to forecast system replacement as it reaches the end of its 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.

All members of the survey team recorded existing conditions, identified problems and deficiencies, and documented corrective action and quantities. The team took digital photos at each school to better identify significant deficiencies.

Discipline Specialists

All assessment teams produced current deficiencies that are 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 was incorporated 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.

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

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialist 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: 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. Also, onsite personnel conducted an initial evaluation from data collected during the facility condition assessment. Based on the 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 acoustic, 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 systems noise and vibration control.

Educational Space Analysis: The evaluation of 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 create a listing of alterations that should be made to make the space a better environment for teaching and learning.

DRAFT

System Summaries

The following tables summarize major building systems at North Smithfield High School campus, identified by discipline and building.

Site

The site level systems for this campus includes:

Site	Asphalt Parking Lot Pavement
	Asphalt Pedestrian Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the buildings at this campus includes:

01 - Main Building:	Brick Exterior Wall
	Metal Panel Exterior Wall
	Aluminum Exterior Windows
	Wood Exterior Windows
	Storefront / Curtain Wall
	Storefront Entrance Doors
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
02 - Maintenance Shed:	CMU Exterior Wall
	Aluminum Exterior Windows
	Wood Exterior Doors
	Overhead Exterior Utility Doors
03 - Fire Pump House:	Metal Panel Exterior Wall
	Steel Exterior Entrance Doors
04 - Concession Stand:	Wood Siding Exterior Wall
	Wood Exterior Doors
06 - Well Pump House:	Pre-cast Concrete Panel Exterior Wall
	Wood Exterior Doors

The roofing for the buildings at this campus consists of:

01 - Main Building:	EPDM Roofing
02 - Maintenance Shed:	Composition Shingle Roofing
03 - Fire Pump House:	EPDM Roofing
04 - Concession Stand:	Composition Shingle Roofing
06 - Well Pump House:	Cast In Place Concrete Roofing

Interior

The interior systems for the buildings at this campus includes:

01 - Main Building:	Steel Interior Doors

DRAFT

01 - Main Building:	Wood Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Wood Wall Paneling
	CMU Wall
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Quarry Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
	Carpet
	Athletic/Sport Flooring
02 - Maintenance Shed:	Wood Ceilings
	CMU Wall
	Concrete Flooring
	Wood Flooring
03 - Fire Pump House:	Metal Wall Paneling
	Concrete Flooring
	Metal Ceiling Panel
04 - Concession Stand:	Wood Ceilings
	Wood Wall Paneling
	Concrete Flooring
06 - Well Pump House:	Painted Ceilings
	CMU Wall
	Concrete Flooring

DRAFT

Mechanical

The mechanical systems for the buildings at this campus includes:

01 - Main Building:	400 MBH Cast Iron Steam Boiler
	3,264 MBH Cast Iron Water Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	20 kW Electric Unit Heater
	20 MBH Steam Unit Heater

01 - Main Building:	DDC Heating System Controls
	1 Ton Ductless Split System
	Window Units
	2-Pipe Hot Water Hydronic Distribution System
	1 HP or Smaller Pump
	5 HP Pump
	2,000 CFM Interior AHU
	5,000 CFM Interior AHU
	Ductwork
	Kitchen Exhaust Hoods
	Laboratory Fume Hood
	Roof Exhaust Fan
02 - Maintenance Shed:	80 MBH Gas Unit Heater
03 - Fire Pump House:	20 kW Electric Unit Heater
	>100 HP Pump
	Wall Exhaust Fan
06 - Well Pump House:	20 kW Electric Unit Heater
	5 HP Pump

Plumbing

The plumbing systems for the buildings at this campus includes:

01 - Main Building:	250 Gallon Water Storage Tank
02 - Maintenance Shed:	Gas Piping System
01 - Main Building:	Domestic Water Piping System
06 - Well Pump House:	Domestic Water Piping System
01 - Main Building:	Classroom Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
	Sump Pump
	10,000 Gallon Above Ground Fuel Oil Storage Tank

Electrical

The electrical systems for the buildings at this campus includes:

01 - Main Building:	150 kW Emergency Generator
	2,000 kW Inverter
	Solar Panels

DRAFT

01 - Main Building:	Automatic Transfer Switch
	1,600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 125A
	Panelboard - 120/208 400A
	Panelboard - 120/240 225A
	Panelboard - 400+ Amps
	Electrical Disconnect
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
	Light Fixtures
02 - Maintenance Shed:	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Light Fixtures
03 - Fire Pump House:	Automatic Transfer Switch
	15 KVA Transformer
	Panelboard - 120/208 225A
	Electrical Disconnect
	Light Fixtures
	Building Mounted Lighting Fixtures
04 - Concession Stand:	Panelboard - 120/208 100A
	Panelboard - 277/480 400A
	Building Mounted Lighting Fixtures
	Light Fixtures
06 - Well Pump House:	Panelboard - 120/208 225A
	Electrical Disconnect
	Light Fixtures

DRAFT

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, re-carpeting, improved signage, or other improvements to the facility environment.

DRAFT

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

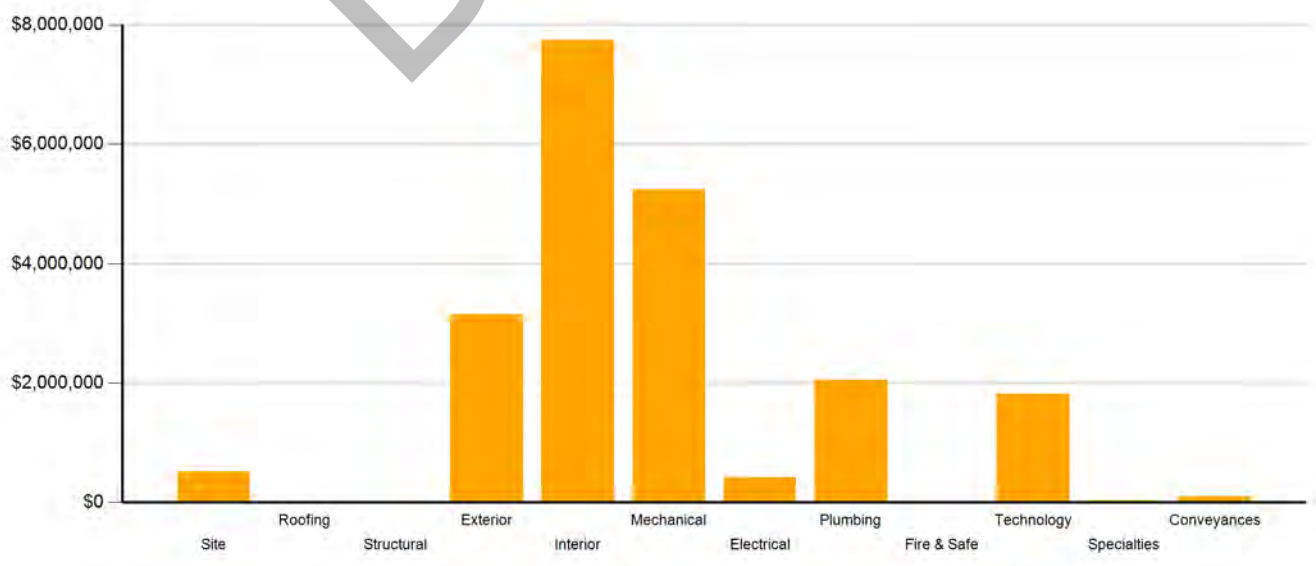
	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	-	$521,610	-	$521,610	2.47 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$1,370,013	$4,950	$1,770,859	-	$3,145,822	14.91 %
Interior	-	$358,483	$3,582,530	$2,670,821	$1,131,689	$7,743,523	36.71 %
Mechanical	-	$808,005	$3,721,415	$708,726	-	$5,238,146	24.83 %
Electrical	-	$312,477	$13,196	-	$93,798	$419,471	1.99 %
Plumbing	-	-	$1,604,666	$396,938	$53,764	$2,055,368	9.74 %
Fire and Life Safety	-	-	$20,821	-	-	$20,821	0.10 %
Technology	-	-	$1,815,530	-	-	$1,815,530	8.61 %
Conveyances	-	-	$94,430	-	-	$94,430	0.45 %
Specialties	-	-	$3,533	$4,779	$29,553	$37,865	0.18 %
Total	$0	$2,848,978	$10,861,071	$6,073,733	$1,308,804	$21,092,586	

The building systems at the campus with the most need include:

Interior	-	$8,517,548
Mechanical	-	$6,094,992
Exterior	-	$3,145,822

The table below represents the building systems and their percentages for overall campus need.

Figure 2: System Deficiencies



DRAFT

Current Deficiencies by Category

The deficiencies have been further grouped according to the observed deficiency category and priority.

• **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 and Rhode Island Governors Commission on Disability. Additional items 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 deficiency correcting planned work postponed beyond its regular life expectancy.

• **Code compliance** deficiencies relate 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 and are reflected in the master plan.

• **Educational adequacy** includes deficiencies identify how facilities align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional deficiencies** are deficiencies for a component or system that has failed before the end of its expected life or is 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 dedicate air conditioning for telecommunication rooms.

• **Traffic** site deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

DRAFT

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

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	$321,413	-	$321,413
Barrier to Accessibility	-	-	$590,184	-	-	$590,184
Capital Renewal	-	$2,490,495	$6,593,215	$3,755,150	$1,099,148	$13,938,007
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$42,418	$1,913,770	$185,351	$2,141,539
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	$358,483	$1,837,787	$83,400	$24,306	$2,303,976
Technology	-	-	$1,797,466	-	-	$1,797,466
Traffic	-	-	-	-	-	$0
Total	$0	$2,848,978	$10,861,071	$6,073,733	$1,308,804	$21,092,586

DRAFT

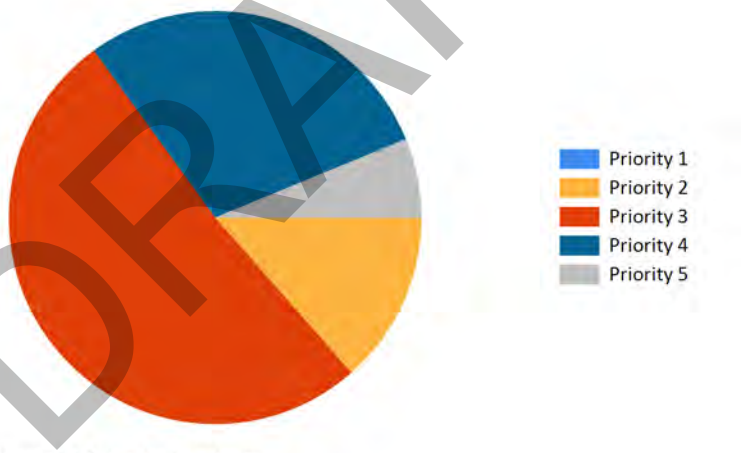


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

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

However, 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 10-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 the end of it's life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 10-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	Year 6 2022	Year 7 2023	Year 8 2024	Year 9 2025	Year 10 2026	Total	$/GSF
Site	$521,610	$0	$0	$0	$0	$208,153	$0	$336,139	$0	$0	$0	$544,292	$1,133.94
Roofing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,346	$30,346	$63.22
Structural	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Exterior	$3,145,822	$0	$0	$0	$0	$0	$0	$0	$73,584	$0	$774,386	$847,970	$1,766.60
Interior	$7,743,523	$0	$0	$0	$0	$66,169	$0	$378,076	$194,524	$0	$1,121,627	$1,760,396	$3,667.49
Mechanical	$5,238,146	$0	$0	$0	$0	$31,928	$0	$0	$0	$4,580	$0	$36,508	$76.06
Electrical	$419,471	$0	$0	$0	$0	$0	$0	$0	$0	$0	$12,644	$12,644	$26.34
Plumbing	$2,055,368	$0	$0	$0	$0	$46,074	$91,762	$83,851	$0	$0	$0	$221,687	$461.85
Fire and Life Safety	$20,821	$0	$0	$0	$0	$0	$0	$0	$0	$424,995	$0	$424,995	$885.41
Technology	$1,815,530	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Conveyances	$94,430	$0	$0	$0	$0	$0	$285,209	$0	$0	$0	$0	$285,209	$594.19
Specialties	$37,865	$0	$0	$0	$0	$0	$1,221,161	$0	$0	$0	$0	$1,221,161	$2,544.09
Total	**$21,092,586**	**$0**	**$0**	**$0**	**$0**	**$352,324**	**$1,598,132**	**$798,066**	**$268,108**	**$429,575**	**$1,939,003**	**$5,385,208**	**$11,219.18**

DRAFT

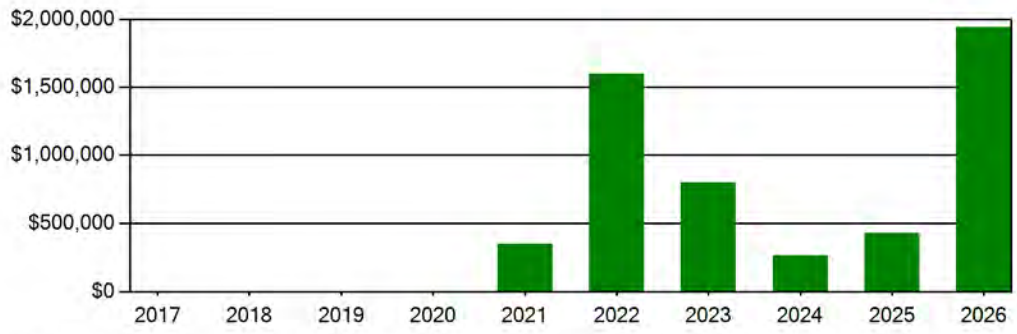


Figure 4: Life Cycle Capital Renewal Forecast

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 National Association of College and University Business Officers has suggested for college planning that an FCI of less than 5 percent is good, an FCI between 5 and 10 percent is fair, and an FCI greater than 10 percent is poor. In K-12 public school planning, the gulf between 10 percent and 100 percent is just not stratified enough. Jacobs has used the following ranges to provide a little more gradation. FCI's less than 10 percent are considered good, 10 to 60 percent is fair, and anything greater than 60 percent is poor. Financial modeling has shown that over a 30-year period, schools that fall in the 65 percent or greater range are more cost-effective to replace than to repair. This is due to efficiency gains with more modern facilities 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/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 decision.

The FCI is calculated by dividing the total repair cost, including site-related repairs, by the total replacement cost. Costs associated with new construction are not included in the FCI calculation. As a general rule, an FCI below 10% is considered good. An economic analysis generally suggests that FCIs greater than 65 percent represent the point where facilities should be considered for replacement. This value typically indicates the point where further expenditures on a building offer little return when compared to the potential cost of replacing that facility.

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 $53,269,200. The total current cost for all deficiencies is $21,092,586.

The North Smithfield High School facility has an overall FCI of 39.60%.

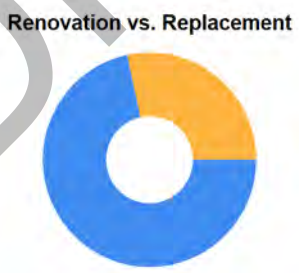


Figure 5: Renovation vs Replacement

DRAFT

Five Year FCI

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. For planning purposes, the total five-year need at North Smithfield High School is $21,444,910 (Life Cycle Yrs 1-5 plus the Current Deficiencies)

A five year FCI was calculated by dividing the five year need by the total replacement cost. The North Smithfield High School facility has a five year FCI of 40.26% (Life Cycle Yrs 1-5 plus Current Deficiencies divided by the Total Replacement Cost).

Summary of Findings

The table below summarizes the condition findings at North Smithfield High School.

Table 4: Facility Condition by Building

Number	Building Name	Gross Sq Ft	Built Date	Current Deficiencies	FCI	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
	Exterior Site			$2,290,911		$2,499,064	
01	Main Building	145,000	1967	$18,771,358	35.96%	$18,869,455	36.15%
02	Maintenance Shed	2,128	1967	$12,817	1.67%	$58,891	7.69%
03	Fire Pump House	110	2008	$0	.00%	$0	.00%
04	Concession Stand	252	2008	$0	.00%	$0	.00%
06	Well Pump House	480	1967	$17,500	10.13%	$17,500	10.13%
Totals		**147,970**		**$21,092,586**	**39.60%**	**$21,444,910**	**40.26%**

The following pages provide a listing of all current deficiencies and 10 year life cycle need for the site and building and the associated costs, followed by photos taken during the assessment.

DRAFT

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Paving Requires Replacement	Capital Renewal	150	CAR	4	$492,936	2557
Note: Asphalt is weathered and cracking.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,674	28525
Note: Backstops Require Replacement						
	Sub Total for System	**2**	**items**		**$521,610**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Media Center does not meet size standard	Educational Adequacy	2,571	SF	4	$1,769,301	53242
Note: Library/Media Center does not meet required RI standard for space size. (Std=4587.5 sf, Current=2016 sf)						
	Sub Total for System	**1**	**items**		**$1,769,301**	
	Sub Total for School and Site Level	**3**	**items**		**$2,290,911**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Aluminum Window Requires Replacement	Capital Renewal	4,725	SF	2	$794,199	2579
Note: Windows are original to the building and are single-pane.						
The Aluminum Window Requires Replacement	Capital Renewal	945	SF	2	$158,840	2581
Note: Windows are original to the building and are single-pane.						
The Aluminum Window Requires Replacement	Capital Renewal	54	SF	2	$9,077	2582
Note: Windows are original to the building and are single-pane.						
The Aluminum Window Requires Replacement	Capital Renewal	135	SF	2	$22,691	2587
Note: Windows are original to the building and are single-pane.						
The Wood Window Requires Replacement	Capital Renewal	50	SF	2	$9,482	2563
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	936	SF	2	$177,509	2564
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	192	SF	2	$36,412	2565
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	252	SF	2	$47,791	2571
Note: Windows are original to the building and are single-pane in wood frames that are aged and cracking.						
The Wood Window Requires Replacement	Capital Renewal	72	SF	2	$13,655	2572
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	24	SF	2	$4,552	2574
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	12	SF	2	$2,276	2576
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	80	SF	2	$15,172	2577
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	24	SF	2	$4,552	2578
Note: Windows are original to the building and are single-pane in wood frames.						
The Wood Window Requires Replacement	Capital Renewal	302	SF	2	$57,273	2585
Note: Windows are original to the building and are single-pane in wood frames. Some have missing panes in the cafeteria.						
Exterior Metal Door Requires Repainting	Capital Renewal	24	Door	3	$4,950	2610
Note: Metal doors are faded and chipping.						
Handrail Requires Repainting	Capital Renewal	150	LF	4	$1,558	2609
Note: Exterior metal handrails require repainting.						
	Sub Total for System	**16**	**items**		**$1,359,987**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	16	Ea.	2	$4,533	6352
Note: All Exit Doors Painted Wood Door Frames						
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	15	Ea.	2	$4,249	6399
Note: Cafeteria Painted Window Frames						

DRAFT

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	16	Ea.	2	$4,533	6434
Note: Exterior Doors Painted Doors						
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	6,600	LF	2	$149,576	6341
Note: All Windows Painted Window Frames						
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	360	LF	2	$8,159	6353
Note: Gymnasium Painted Cove Base						
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	260	LF	2	$5,892	6433
Note: Exterior Doors Wood Trim						
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	7,975	SF	2	$75,308	2592
Note: Painted ceilings are damaged from moisture infiltration and paint is bubbled and peeling.						
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	1,500	SF	2	$14,164	6430
Note: Windows Painted Porticos & Soffits						
Wall/ceiling materials - large areas (> 10 sq. ft.) of damage & area in active use - children	Hazardous Material	9,750	SF	2	$92,069	6403
Note: Auditorium Popcorn Ceiling						
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	50,750	SF	3	$1,437,689	2606
Note: 9x9 tile is separating and cracking.						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	8,800	LF	3	$166,196	6342
Note: All Windows Window Frame Caulking						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	360	LF	3	$6,799	6400
Note: Cafeteria Window Frame Caulking						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	8,000	LF	3	$151,087	6432
Note: Windows Window Caulk						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	200	LF	3	$3,777	6435
Note: Exterior Walls Wall Joint Caulk						
Existing Door Hardware Is Not ADA Compliant	Barrier to Accessibility	175	Door	3	$495,755	2603
Note: The wood interior doors are original to the building and are not ADA compliant.						
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	3,650	SF	3	$34,467	27908
Note: Painted walls.						
The Carpet Flooring Requires Replacement	Capital Renewal	7,250	SF	3	$156,670	2601
Note: Carpet is worn and faded.						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	21,750	SF	3	$580,136	2596
Note: Ceramic tile is generally worn with various pieces missing throughout.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	44,950	SF	3	$512,182	2598
Note: VCT shows sign of wear and tear.						
Wall/ceiling materials -large areas (> 10 sq. ft.) of damage & area in active use-adults only	Hazardous Material	3,000	SF	3	$28,329	6392
Note: Utility Room behind Auditorium Wall Plaster						
Wall/ceiling materials -large areas (> 10 sq. ft.) of damage & area in active use-adults only	Hazardous Material	1,000	SF	3	$9,443	6396
Note: Boiler Room Ceiling Plaster						
Ceiling Grid Requires Replacement	Capital Renewal	122,525	SF	4	$1,443,422	2590
Note: Ceiling grid is mostly original and is stained throughout.						
Interior Ceramic Walls Require Repair Or Replacement	Capital Renewal	50,750	SF	4	$1,121,398	2593
Note: Tile walls are buckling and pieces are breaking off.						
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	1	Ea.	4	$283	6343
Note: Weight Room Heat Unit						
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	200	Ea.	4	$56,658	6345
Note: Interior Entrance Doors Door						
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	1	Ea.	4	$283	6346
Note: NW Corridor Heat Unit						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	9	Ea.	4	$2,550	6362
Note: Classrooms 112, 114, 111, 116, 113, 115, 117, 118, 110 Heat Unit						
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	1	Ea.	4	$283	6401
Note: Cafeteria Heat Unit						

DRAFT

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	500	LF	4	$11,332	6351
Note: Locker Rooms Metal Lockers						
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	150	LF	4	$3,399	6361
Note: B-Wing Corridor Metal Lockers						
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	20	LF	4	$453	6372
Note: Science Lab 109 Wood Casework - Base Cabinets						
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	20	LF	4	$453	6373
Note: Science Department Office Wood Casework - Base Cabinets						
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	20	LF	4	$453	6374
Note: Science Lab 108 Wood Casework - Base Cabinets						
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	200	LF	4	$4,533	6375
Note: Library Wood Casework - Full Shelving						
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	20	LF	4	$453	6377
Note: Room 107 Wood Casework - Base Cabinets						
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	20	LF	4	$453	6381
Note: Science Room 106 Wood Casework - Base Cabinets						
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	20	LF	4	$453	6384
Note: Science Room 105 Wood Casework - Base Cabinets						
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	20	LF	4	$453	6388
Note: Room 103 Wood Casework - Base Cabinets						
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	20	LF	4	$453	6416
Note: Computer Room 215 Wood Casework - Base Cabinets						
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	20	LF	4	$453	6420
Note: Computer Room 216 Wood Casework - Base Cabinets						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	590	SF	4	$22,601	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	3	Ea.	5	$1,239	Rollup
Interior Walls Require Repainting (Bldg SF)	Hazardous Material	3,600	SF	5	$23,626	2595
Note: Painted walls show signs of years of wear and tear. Paint is scuffed or peeling throughout.						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. AND NOT in children-accessible area (measurement unit - linear feet)	Hazardous Material	30	LF	5	$680	6355
Note: Mechanical Room by Girls Lockers Painted Sewer Pipes						
Room lacks appropriate sound control.	Educational Adequacy	200	SF	5	$6,996	Rollup
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	122,525	SF	5	$1,099,148	2604
Note: Ceiling tiles are stained, bulging, and torn from previous pipe and roof leaks.						
	Sub Total for System	**46**	**items**		**$7,743,523**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Air Handler HVAC Component Requires Replacement	Capital Renewal	4	Ea.	2	$171,386	2529
Note: Heating units located above the ceiling.						
The Air Handler HVAC Component Requires Replacement	Capital Renewal	6	Ea.	2	$603,456	2532
Note: AHUs are original to the building and are visually deteriorating. Equipment is obsolete and replacement parts are no longer available.						
The Window AC Unit Component Requires Replacement	Capital Renewal	10	Ea.	2	$33,164	2517
Note: Window units no longer function.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	145,000	SF	3	$2,117,314	2551
Note: Ductwork is original to the building.						
Electric Unit Heater Requires Replacement	Capital Renewal	4	Ea.	3	$16,125	2523
Note: Electric unit heaters are original to the building and according to the occupants perform poorly.						
Steam/HW Unit Heater Requires Replacement	Capital Renewal	26	Ea.	3	$72,722	2496
Note: Hallway and cabinet unit heaters are original to the building. Units are obsolete and replacement parts are no longer available. They fail regularly according to building occupants.						
Steam/HW Unit Heater Requires Replacement	Capital Renewal	51	Ea.	3	$142,647	2497
Note: Most cabinet unit heaters in classrooms have failed.						

DRAFT

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Fin Tube Water Radiant Heater Requires Replacement	Capital Renewal	155	Ea.	3	$257,896	2489
Note: Finned wall radiators are original to the building and should be replaced. Casings are visually deteriorating throughout the building. Hot water system is very corrosive, per the building manager.						
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	145,000	SF	3	$1,110,161	2502
Note: Heating hot water piping showing signs of corrosion and failure. Valves and other components are corroded due to poor water quality.						
Lab lacks an appropriate fume hood.	Educational Adequacy	4	Ea.	4	$88,415	Rollup
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	4	Ea.	4	$30,308	2521
Note: Pumps are original and should be replaced. If they fail domestic hot water may not be available to the building.						
The Chemistry Lab Fume Hood(s) Require Replacement	Capital Renewal	2	Ea.	4	$56,658	2514
Note: Fume hoods are obsolete and no longer operable.						
The Exhaust Hood Requires Replacement	Capital Renewal	41	Ea.	4	$211,932	2534
Note: Exhaust fans are original to the building and get re-built as they fail, but are constantly requiring service and attention.						
Unit Ventilators Are Excessively Noisy	Acoustics	51	Ea.	4	$321,413	4715
Note: All classrooms						
	Sub Total for System	**14**	**items**		**$5,233,597**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Panelboard Requires Replacement	Capital Renewal	11	Ea.	2	$52,975	2490
Note: Branch panels are obsolete and original to building. Branch panels, breakers, etc. should be updated.						
The Panelboard Requires Replacement	Capital Renewal	16	Ea.	2	$99,718	2874
Note: Branch panels are obsolete and original to building. Branch panels, breakers, etc. should be updated.						
The Panelboard Requires Replacement	Capital Renewal	14	Ea.	2	$133,523	2875
Note: Branch panels are obsolete and original to building. Branch panels, breakers, etc. should be updated.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$17,668	2876
Note: Branch panels are obsolete and original to building. Branch panels, breakers, etc. should be updated.						
Remove Abandoned Equipment	Capital Renewal	2	Ea.	3	$6,598	2511
Note: Abandoned domestic hot water equipment						
Remove Abandoned Equipment	Capital Renewal	2	Ea.	3	$6,598	2515
Note: Abandoned electrical disconnects						
Room Has Insufficient Electrical Outlets	Educational Adequacy	188	Ea.	5	$93,798	Rollup
	Sub Total for System	**7**	**items**		**$410,878**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Sump Pump Requires Replacement	Capital Renewal	1	Ea.	3	$1,439	2501
Note: Inoperable						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	145,000	SF	3	$1,158,797	2509
Note: Domestic water piping is original to building. Poor water quality is observed.						
The Showers Plumbing Fixtures Require Replacement	Capital Renewal	40	Ea.	3	$302,174	2505
Note: Locker room showers are original and obsolete. Many no longer function. When they fail replacement parts cannot be located.						
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	43	Ea.	3	$121,814	2494
Note: Flush valves and toilets are original to 1967 unless they have been repaired due to failure. Fixtures fail regularly and show signs of corrosion. According to the building manager, flush valves fail regularly.						
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	15	Ea.	3	$19,802	2495
Note: Urinals and flush valves are original to the building and require replacement. They are showing signs of corrosion and fail regularly.						
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	4	Ea.	4	$40,605	2507
Note: Non-functional						
The Classroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	25	Ea.	4	$67,517	2503
Note: Classroom sinks are original to the building and are showing signs of corrosion and failure due to poor water quality.						
The Classroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	3	Ea.	4	$8,102	2518
Note: Trough sinks are aged, stained, and should be replaced.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	10	Ea.	4	$25,590	2513
Note: Mop sinks are deteriorated and failing.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	18	Ea.	4	$131,899	2506
Note: Water fountains are non-functional.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	39	Ea.	4	$123,225	2865
Room lacks a drinking fountain.	Educational Adequacy	6	Ea.	5	$6,652	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	31	Ea.	5	$47,111	Rollup
	Sub Total for System	**13**	**items**		**$2,054,728**	

DRAFT

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks shut-off valves for utilities.	Educational Adequacy	7	Ea.	3	$20,821	Rollup
	Sub Total for System	**1**	**items**		**$20,821**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	6	Ea.	3	$18,065	Rollup
Technology: Campus lacks security electronic access control.	Technology	8	Ea.	3	$60,435	3879
Note: Key scan Access Control System add Access Control with 10 doors						
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	1	Ea.	3	$9,443	3876
Note: Refresh AV system in Library.						
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	31	Ea.	3	$614,736	3877
Note: Technology: Add new classroom AV/Multimedia systems to support digital formats.						
Technology: Gymnasium sound system is nonexisitant, inadequate, or near end of useful life.	Technology	1	Ea.	3	$9,065	3882
Note: Refresh gym audio system						
Technology: Instructional spaces do not have local sound reinforcement.	Technology	50	Ea.	3	$236,074	3874
Note: Add sound reinforcement found in instructions spaces						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3862
Note: IDF Conf1 needs grounding system improvements.						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3865
Note: IDF Storage needs grounding system improvements.						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3870
Note: IDF 215 needs grounding system improvements.						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3861
Note: IDF Conf1 needs to be rezoned. Shared space, ups on floor						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3864
Note: IDF Storage needs to be rezoned.						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3869
Note: IDF 215 needs to be rezoned.						
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	3858
Note: MDF has no ground system.						
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$49,859	3856
Note: miff - Custodian Room shared with janitorial staff, has sink and drain, used for storage						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	60	Ea.	3	$25,496	3859
Note: MDF Existing category 5 cables serviced by this space.						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	140	Ea.	3	$59,491	3867
Note: IDF Storage Existing category 5 cables serviced by this space.						
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	118	Ea.	3	$50,142	3872
Note: IDF 215 Existing category 5 cables serviced by this space.						
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	145,000	SF	3	$246,461	3881
Note: PA/Bell/Clock system is aging analog, replace.						
Technology: Security cameras and recording system are inadequate and/or near end of useful life.	Technology	28	Ea.	3	$132,201	3880
Note: Digital camera system with 20 IP Cameras refresh and add 28 additional IP Cameras						
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$53,825	3875
Note: Add AV system to cafetorium.						
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$7,554	3857
Note: MDF does not have dedicated AC unit, since it is MDF it is considered large size.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3863
Note: IDF Conf1 needs dedicated AC unit.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3866
Note: IDF Storage needs dedicated AC unit.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3871
Note: IDF 215 needs dedicated AC unit.						

DRAFT

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	1	Ea.	3	$6,232	3860
Note: MDF Allowance to refresh Telecommunication Room fiber infrastructure.						
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	1	Ea.	3	$6,232	3868
Note: IDF Storage Allowance to refresh Telecommunication Room fiber infrastructure.						
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	1	Ea.	3	$6,232	3873
Note: IDF 215 Allowance to refresh Telecommunication Room fiber infrastructure.						
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	45	Ea.	3	$67,989	3884
Note: Replace/add telephone handsets in classrooms and office spaces.						
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,177	3883
Note: Phone system is aging Toshiba Strata analog, replace.						
	Sub Total for System	**29**	**items**		**$1,815,530**	

Conveyances

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Access Is Not ADA Compliant And Requires A Platform Lift	Barrier to Accessibility	2	Ea.	3	$94,430	2492
Note: Lifts are inoperable.						
	Sub Total for System	**1**	**items**		**$94,430**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	3	Ea.	3	$3,533	Rollup
Welding Bays Are Required	Educational Adequacy	1	Ea.	4	$4,779	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	5	Ea.	5	$29,553	Rollup
	Sub Total for System	**3**	**items**		**$37,865**	
	Sub Total for Building 01 - Main Building	**130**	**items**		**$18,771,358**	

Building: 02 - Maintenance Shed

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$8,267	2543
Note: Door is weathered and cracking.						
	Sub Total for System	**1**	**items**		**$8,267**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Gas Unit Heater Requires Replacement	Capital Renewal	1	Ea.	3	$4,550	2485
Note: Second floor unit heater is inoperable.						
	Sub Total for System	**1**	**items**		**$4,550**	
	Sub Total for Building 02 - Maintenance Shed	**2**	**items**		**$12,817**	

Building: 06 - Well Pump House

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$8,267	2879
Note: Door is chipped and weathered and should be replaced.						
	Sub Total for System	**1**	**items**		**$8,267**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	480	SF	2	$2,833	2486
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,760	2487
Note: Panel is outdated and equipment is obsolete.						
	Sub Total for System	**2**	**items**		**$8,593**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	80	SF	3	$639	2488
Note: Piping from inlet of pump to well is original and showing signs of corrosion and failure.						
	Sub Total for System	**1**	**items**		**$639**	
	Sub Total for Building 06 - Well Pump House	**4**	**items**		**$17,500**	
	Total for Campus	**139**	**items**		**$21,092,586**	

DRAFT

Buildings with no reported deficiencies

03 - Fire Pump House

04 - Concession Stand

DRAFT

North Smithfield High School - Life Cycle Summary Yrs 1-10

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fences and Gates	Wood		470	LF	$116,175	5
Pedestrian Pavement	Sidewalks - Concrete		4,500	SF	$91,978	5
Fences and Gates	Fencing - Chain Link (8 Ft)		5,000	LF	$336,139	7
		Sub Total for System	**3**	**items**	**$544,293**	
		Sub Total for Building -	**3**	**items**	**$544,293**	

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Metal Panel - Bldg SF basis		7,250	SF	$689,255	10
		Sub Total for System	**1**	**items**	**$689,255**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Paneling	Wood Panel wall		7,250	SF	$66,169	5
Acoustical Suspended Ceilings	Ceiling Exposed Metal Structure		14,500	SF	$165,421	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		3,650	SF	$24,117	7
Interior Door Supplementary Components	Door Hardware		48	Door	$150,590	7
Wall Painting and Coating	Painting/Staining (Bldg SF)		3,600	SF	$23,786	7
Interior Coiling Doors	Overhead		1	Door	$36,792	8
Carpeting	Carpet		7,250	SF	$157,732	8
Interior Swinging Doors	Wood		175	Door	$806,904	10
Suspended Plaster and	Painted ceilings		7,975	SF	$33,360	10
Wood Flooring	Wood Flooring - All Types		7,250	SF	$240,550	10
		Sub Total for System	**10**	**items**	**$1,705,422**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exhaust Air	Kitchen Exhaust Hoods		2	Ea.	$31,928	5
		Sub Total for System	**1**	**items**	**$31,928**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Mop/Service Sinks		12	Ea.	$30,917	6
Note:	Kitchen sinks					
Plumbing Fixtures	Showers		8	Ea.	$60,845	6
Fuel Storage Tanks	Above Ground Fuel Oil StorageTank (10,000 Gal)		1	Ea.	$83,851	7
		Sub Total for System	**3**	**items**	**$175,613**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		145,000	SF	$424,995	9
		Sub Total for System	**1**	**items**	**$424,995**	

Conveyances

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Elevators	Hydraulic (Passenger Elev)		1	Ea.	$285,209	6
		Sub Total for System	**1**	**items**	**$285,209**	

Specialties

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Casework	Lockers		1,004	Ea.	$493,954	6
Note:	Hallway & locker room					
Casework	Fixed Cabinetry		65	Room	$727,207	6
		Sub Total for System	**2**	**items**	**$1,221,161**	
		Sub Total for Building 01 - Main Building	**19**	**items**	**$4,533,583**	

DRAFT

Building: 02 - Maintenance Shed

Roofing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Steep Slope Roofing	Composition Shingle		1,064	SF	$30,346	10
		Sub Total for System	**1**	**items**	**$30,346**	

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Utility Doors	Overhead		2	Door	$73,584	8
		Sub Total for System	**1**	**items**	**$73,584**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Specialty Suspended Ceilings	Ceiling - Wood		2,128	SF	$14,162	7
Wood Flooring	Wood Flooring - All Types		1,064	SF	$35,303	10
		Sub Total for System	**2**	**items**	**$49,464**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Decentralized Heating Equipment	Unit Heater Gas (80 MBH)		1	Ea.	$4,580	9
		Sub Total for System	**1**	**items**	**$4,580**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Light Fixtures (Bldg SF)		2,128	SF	$12,644	10
		Sub Total for System	**1**	**items**	**$12,644**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Gas Piping System (BldgSF)		2,128	SF	$46,074	5
		Sub Total for System	**1**	**items**	**$46,074**	
		Sub Total for Building 02 - Maintenance Shed	**7**	**items**	**$216,693**	

Building: 03 - Fire Pump House

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Paneling	Metal Panel wall		110	SF	$1,202	10
		Sub Total for System	**1**	**items**	**$1,202**	
		Sub Total for Building 03 - Fire Pump House	**1**	**items**	**$1,202**	

Building: 04 - Concession Stand

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Wood Siding - Bldg SF basis		252	SF	$7,554	10
		Sub Total for System	**1**	**items**	**$7,554**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Paneling	Wood Panel wall		252	SF	$2,300	10
		Sub Total for System	**1**	**items**	**$2,300**	
		Sub Total for Building 04 - Concession Stand	**2**	**items**	**$9,854**	

Building: 06 - Well Pump House

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Pre-cast Concrete Panel - Bldg SF basis		480	SF	$77,577	10
		Sub Total for System	**1**	**items**	**$77,577**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings		480	SF	$2,008	10
		Sub Total for System	**1**	**items**	**$2,008**	
		Sub Total for Building 06 - Well Pump House	**2**	**items**	**$79,585**	
		Total for: North Smithfield High School	**34**	**items**	**$5,385,210**	

DRAFT

Supporting Photos

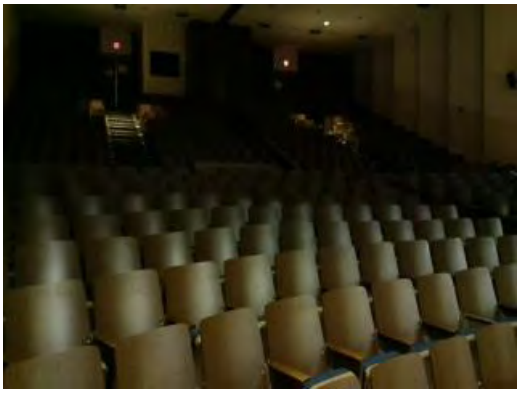
Site Aerial

Pump House - Exterior

Pump House - Weathered Exterior Door

Main Building - Consumer Science Classroom

DRAFT


Main Building - Auditorium


Main Building - Girls Locker Room


Main Building - Roof General Condition

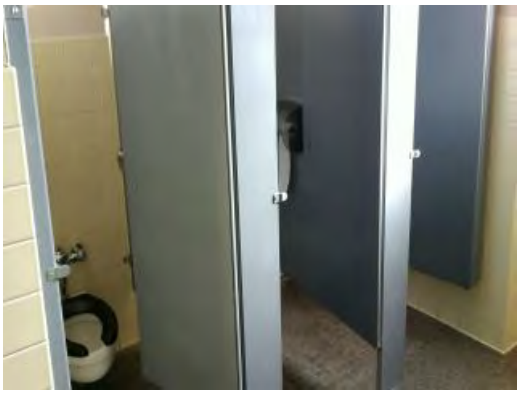

Main Building - Exterior


Main Building - Band Room


Main Building - Weight Room

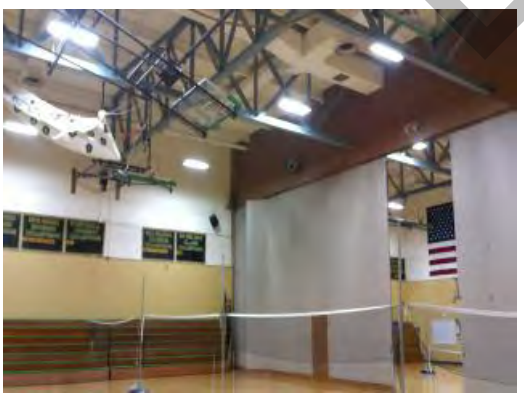
DRAFT

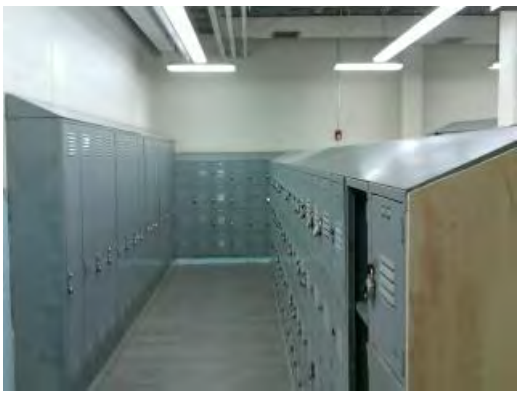

Main Building - Stage


Main Building - Typical Restroom Fixtures And Finishes

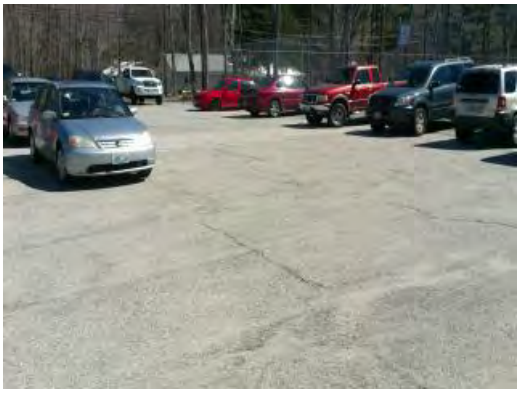

Main Building - Cafeteria


Site - Baseball Field


Main Building - Gymnasium


Main Building - Boys Locker Room

DRAFT

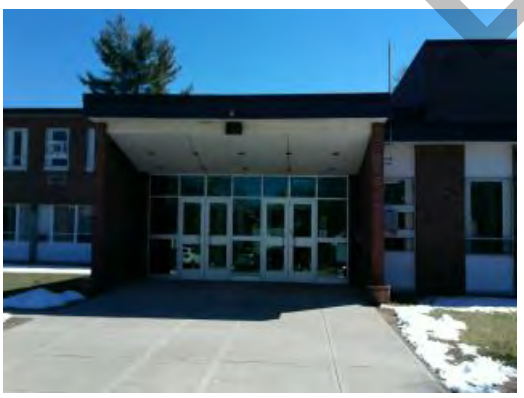


Site - Weathered Asphalt Paving

Site - Basketball Courts

Main Building - Dedication Plaque

Site - Track And Field



Main Building - Entrance

Site - Cracked And Worn Asphalt Parking Lot

DRAFT

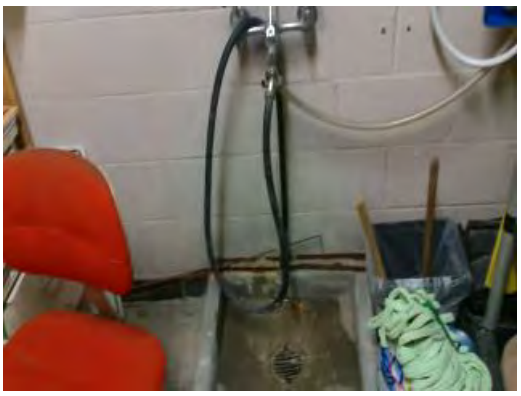

Main Building - Typical Science Classroom


Main Building - Library


Main Building - Cafeteria Exterior


Main Building - Typical Classroom


Main Building - Stained And Leaking Trough Sink Fixture


Main Building - Aged Mop Sink

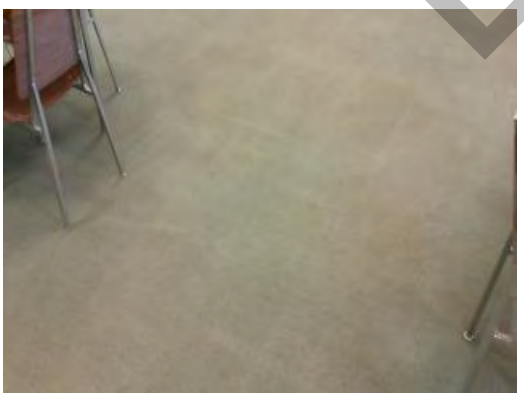
DRAFT


Main Building - Original Hallway Unit Heater


Main Building - Inoperable Sump Pump

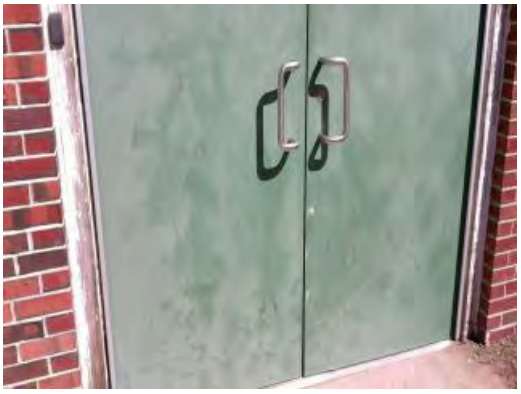

Main Building - Abandoned Storage Tank


Main Building - Urinals Out Of Service

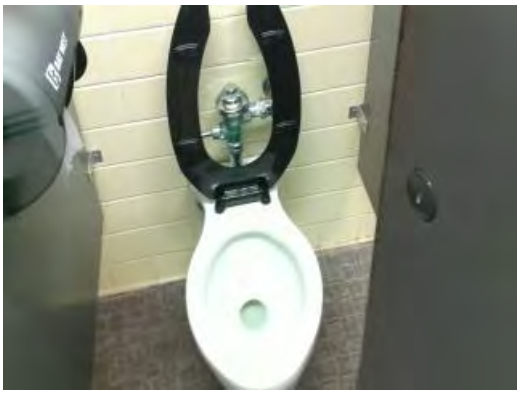

Main Building - Worn And Faded Carpet


Main Building - Original Radiator

DRAFT

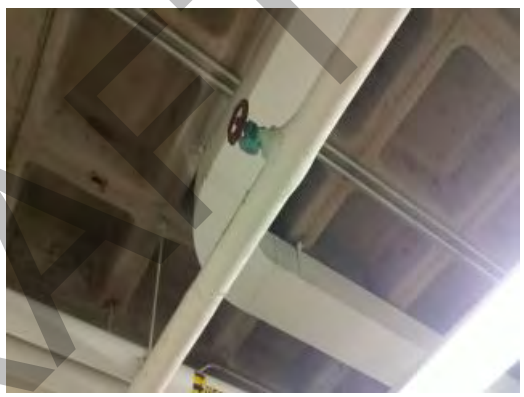


Main Building - Faded Metal Exterior Doors



Main Building - Original Toilet Fixture

Main Building - Stained Ceiling Tiles



Main Building - Heating Hot Water Piping

Main Building - Failed Classroom Unit Heater

Main Building - Original AHU

DRAFT

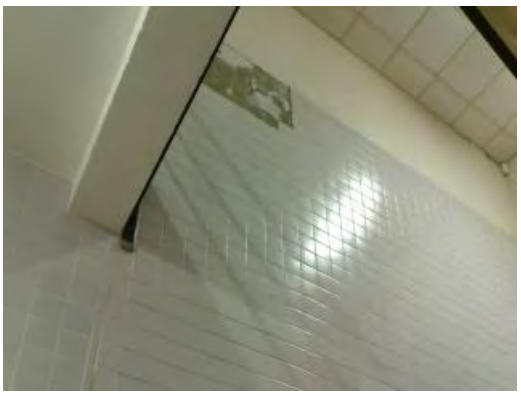

Main Building - Typical Aged Panelboard


Main Building - Cracked And Missing VCT


Main Building - Cracking Wood Framed Window


Main Building - Cracked And Separating 9x9 Tile


Main Building - Typical Single-Pane Wood Framed Window

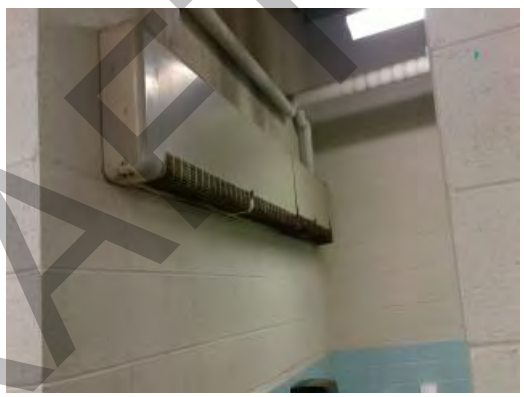

Main Building - Damaged Ceramic Tile Wall

DRAFT

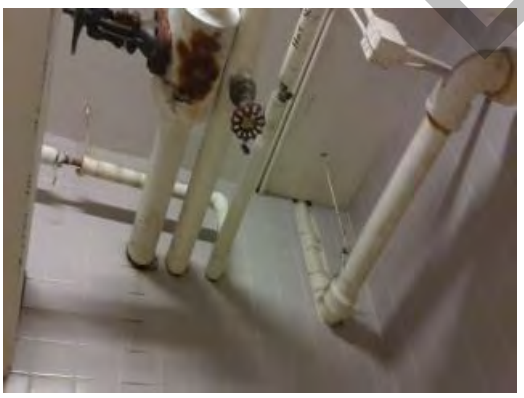
Main Building - Inoperable Fume Hood Used As Storage

Main Building - Corroded Classroom Sink

Main Building - Damaged Painted Classroom Wall



Main Building - Original Radiator



Main Building - Corrosion On Water Piping

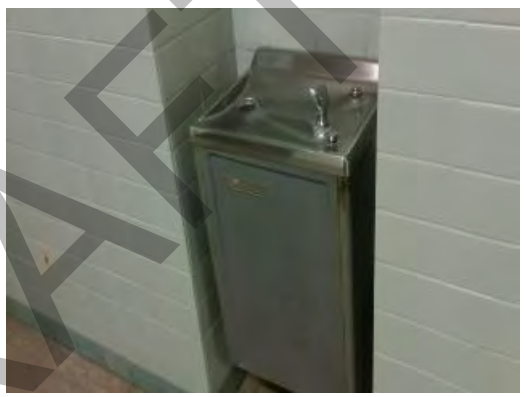
Main Building - Weathered Wood Frame Window

DRAFT


Main Building - Abandoned Electrical Disconnects


Main Building - Typical Single-Pane Window


Main Building - Aged Heating Unit Ventilator

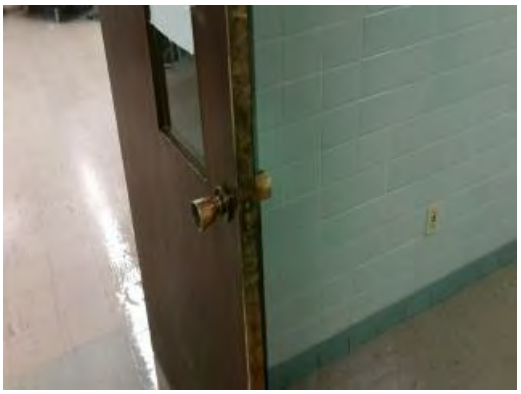

Main Building - Non-Functional Drinking Fountain

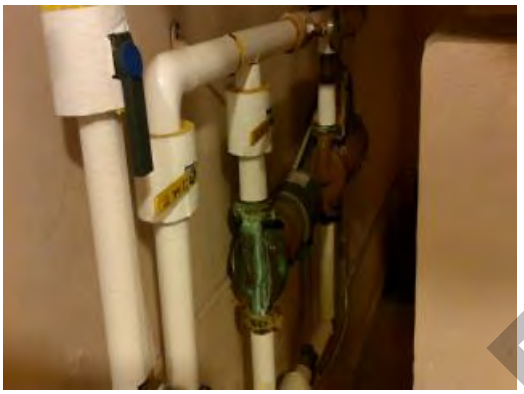

Main Building - Typical Exhaust Fans


Main Building - Typical Original Wood Windows Weathered And Cracking

DRAFT


Main Building - Paint Peeling And Bubbling On Ceiling


Main Building - Non-Compliant Hardware


Main Building - Abandoned Circulators


Main Building - Aged Single-Pane Window


Main Building - Failing Shower Fixtures

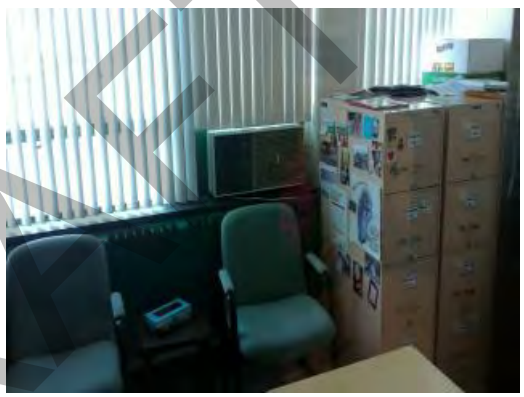

Main Building - Poorly Functioning Unit Heater

DRAFT

Main Building - Stained Ceiling Grid And Tiles

Main Building - Missing Ceramic Tiles

Main Building - Windows With Missing Pane



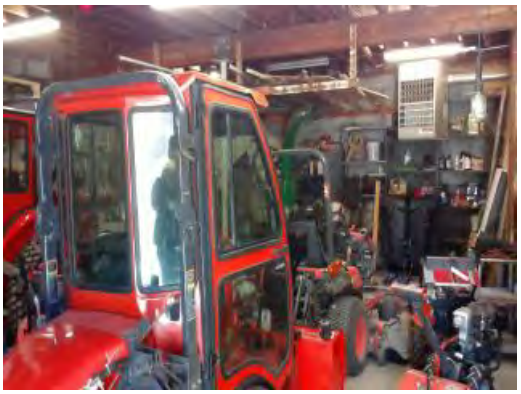
Main Building - Non-Functional Window Unit

Main Building - Corroded Classroom Sink

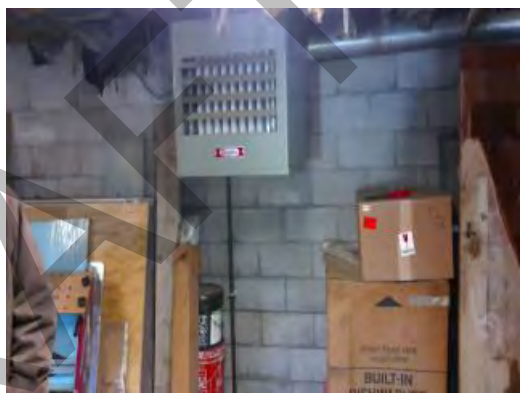
Main Building - Chipped Paint On Handrail

DRAFT


Main Building - Original AHU


Maintenance Shed - Interior Storage


Maintenance Shed - Damaged Exterior Door


Maintenance Shed - Non-Functional Unit Heater


Maintenance Shed - Elevation


Fire Pump House - Exterior

DRAFT


Fire Pump House - Interior


Concession Stand - Exterior


Concession Stand - Interior


Main Building - Original Pump


Pump House - Interior

DRAFT

Facility Condition Assessment

North Smithfield Middle School | *October 2016*

Address: 1850 Providence Pike, North Smithfield, RI 02896

Report Generated: October 06, 2016

DRAFT

Executive Summary

North Smithfield Middle School, located at 1850 Providence Pike in North Smithfield, Rhode Island, was built in 1928. It comprises 116,400 gross square feet. Data in this report was collected in the spring/summer of 2016.

North Smithfield Middle School has an enrollment of 454, serves grades 6 - 8, and has 27 classrooms. The LEA reported capacity for North Smithfield Middle School is 550 with a resulting utilization of 83.00%. For master planning efforts, a RIDE Model Program Standard was established based on the RIDE School Construction Regulations. Applying RIDE's Model Program Standard, a facility of this size could ideally support an enrollment of approximately 654 students.

The total current deficiencies for this campus, in 2016 construction cost dollars, are estimated at $4,207,817. For master planning purposes a five-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For North Smithfield Middle School the five-year need is $4,741,801. The findings contained within this report resulted from an assessment of building systems. Assessments were performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous material, and technology infrastructure.

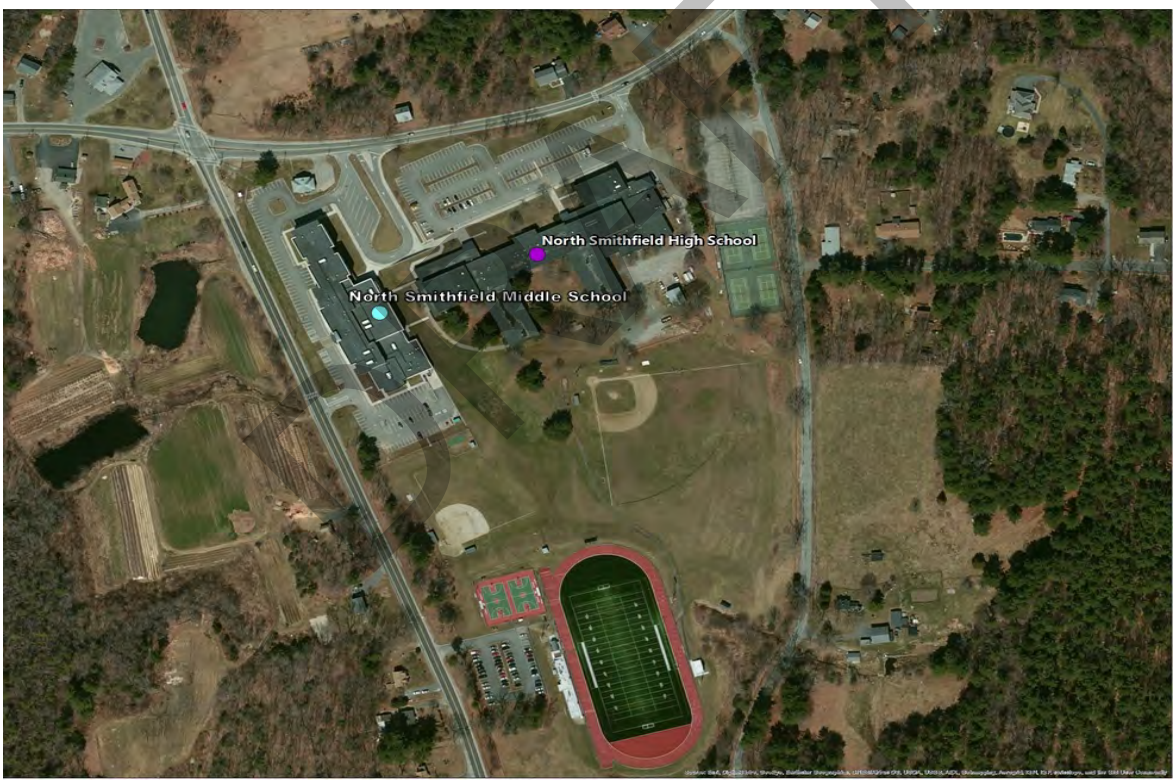


Figure 1: Aerial view of North Smithfield Middle School

Approach and Methodology

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

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

Life Cycle Forecast: Life cycle analysis evaluates the ages of a building's systems to forecast system replacement as it reaches the end of its 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.

All members of the survey team recorded existing conditions, identified problems and deficiencies, and documented corrective action and quantities. The team took digital photos at each school to better identify significant deficiencies.

Discipline Specialists

All assessment teams produced current deficiencies that are 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 was incorporated 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.

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

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialist 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: 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. Also, onsite personnel conducted an initial evaluation from data collected during the facility condition assessment. Based on the 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 acoustic, 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 systems noise and vibration control.

Educational Space Analysis: The evaluation of 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 create a listing of alterations that should be made to make the space a better environment for teaching and learning.

DRAFT

System Summaries

The following tables summarize major building systems at North Smithfield Middle School campus, identified by discipline and building.

Site

The site level systems for this campus includes:

Site	Asphalt Parking Lot Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the buildings at this campus includes:

01 - Main Building:	Brick Exterior Wall
	Metal Panel Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Storefront Entrance Doors
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
02 - Building 02:	Brick Exterior Wall
	Wood Exterior Windows
	Storefront Entrance Doors

The roofing for the buildings at this campus consists of:

01 - Main Building:	EPDM Roofing
02 - Building 02:	Composition Shingle Roofing

Interior

The interior systems for the buildings at this campus includes:

01 - Main Building:	Steel Interior Doors
	Wood Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Acoustical Wall Paneling
	Vinyl/Fabric Wall Covering
	CMU Wall
	Interior Wall Painting

DRAFT

01 - Main Building:	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Rubber Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet
02 - Building 02:	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Wood Ceilings
	Wood Wall Paneling
	Interior Wall Painting
	Concrete Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Carpet

Mechanical

The mechanical systems for the buildings at this campus includes:

01 - Main Building:	4,200 MBH Cast Iron Steam Boiler
	1,200 MBH Copper Tube Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	DDC Heating System Controls
	2 Ton Ductless Split System
	3 Ton Fan Coil - Water Cool/Water Heat
	3 Ton Outside Air Cooled Condenser
	4,000 CFM Energy Recovery Unit
	15 HP VFD
	2-Pipe Hot Water Hydronic Distribution System
	10 HP Pump
	2,000 CFM Interior AHU
	Ductwork
	Large Roof Exhaust Fan
	Small Roof Exhaust Fan
	Supply Fan
	Kitchen Exhaust Hoods
	Fire Sprinkler System
02 - Building 02:	Finned Wall Radiator
	Electronic Heating System Controls
	3 Ton Condensing Unit

DRAFT

02 - Building 02:	Window Units
	1 HP or Smaller Pump
	Ductwork
	5,000 CFM Interior AHU
	Small Roof Exhaust Fan

Plumbing

The plumbing systems for the buildings at this campus includes:

01 - Main Building:	3/4" Backflow Preventers
	Gas Piping System
02 - Building 02:	10 Gallon Electric Water Heater
01 - Main Building:	Domestic Water Piping System
02 - Building 02:	Domestic Water Piping System
01 - Main Building:	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
02 - Building 02:	Lavatories
	Restroom Lavatories
	Toilets
	275 Gallon Above Ground Fuel Oil Storage Tank

Electrical

The electrical systems for the buildings at this campus includes:

01 - Main Building:	300 kW Emergency Generator
	Automatic Transfer Switch
	2,000 Amp Switchgear
	112.5 KVA Transformer
	15 KVA Transformer
	225 KVA Transformer
	75 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 277/480 100A
	Panelboard - 277/480 400A
	Electrical Disconnect
	Building Mounted Lighting Fixtures

DRAFT

01 - Main Building:	Canopy Mounted Lighting Fixtures
	Light Fixtures
02 - Building 02:	Panelboard - 120/240 225A
	Building Mounted Lighting Fixtures
	Light Fixtures

DRAFT

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, re-carpeting, improved signage, or other improvements to the facility environment.

DRAFT

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

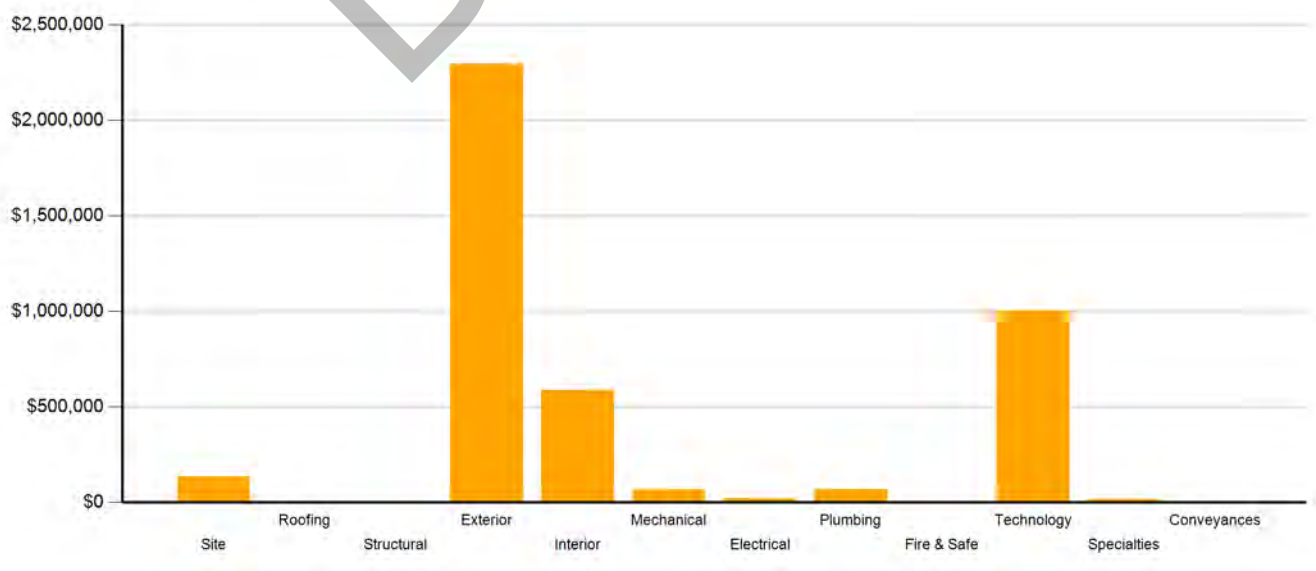
	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	-	$38,533	$95,580	$134,113	3.19 %
Roofing	-	$396	-	-	-	$396	0.01 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	-	$2,296,361	-	$2,296,361	54.57 %
Interior	-	$3,137	$105,507	$476,015	$3,911	$588,571	13.99 %
Mechanical	-	$3,339	$60,410	$4,521	-	$68,270	1.62 %
Electrical	-	-	-	-	$19,957	$19,957	0.47 %
Plumbing	-	$38,028	$4,183	$3,181	$23,780	$69,172	1.64 %
Fire and Life Safety	-	-	$8,923	-	-	$8,923	0.21 %
Technology	-	-	$1,003,144	-	-	$1,003,144	23.84 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$1,178	-	$17,732	$18,910	0.45 %
Total	$0	$44,900	$1,183,345	$2,818,612	$160,961	$4,207,817	

The building systems at the campus with the most need include:

Exterior	-	$2,296,361
Technology	-	$1,003,144
Interior	-	$588,594

The table below represents the building systems and their percentages for overall campus need.

Figure 2: System Deficiencies



DRAFT

Current Deficiencies by Category

The deficiencies have been further grouped according to the observed deficiency category and priority.

• **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 and Rhode Island Governors Commission on Disability. Additional items 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 deficiency correcting planned work postponed beyond its regular life expectancy.

• **Code compliance** deficiencies relate 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 and are reflected in the master plan.

• **Educational adequacy** includes deficiencies identify how facilities align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional deficiencies** are deficiencies for a component or system that has failed before the end of its expected life or is 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 dedicate air conditioning for telecommunication rooms.

• **Traffic** site deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

DRAFT

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

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$67,384	-	-	$67,384
Barrier to Accessibility	-	-	$1,331	-	-	$1,331
Capital Renewal	-	$6,872	$101,385	$498,140	-	$606,397
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$13,112	$2,320,472	$160,961	$2,494,544
Functional Deficiency	-	$38,028	-	-	-	$38,028
Hazardous Material	-	-	-	-	-	$0
Technology	-	-	$1,000,133	-	-	$1,000,133
Traffic	-	-	-	-	-	$0
Total	$0	$44,900	$1,183,345	$2,818,612	$160,961	$4,207,817

DRAFT

Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

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

However, 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 10-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 the end of it's life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 10-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	Year 6 2022	Year 7 2023	Year 8 2024	Year 9 2025	Year 10 2026	Total	$/GSF
Site	$134,113	$0	$0	$0	$0	$0	$0	$0	$982,631	$0	$380,580	$1,363,211	$11.71
Roofing	$396	$0	$0	$34,225	$0	$0	$0	$0	$0	$0	$0	$34,225	$0.29
Structural	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Exterior	$2,296,361	$0	$0	$82,710	$0	$109,520	$0	$0	$0	$0	$0	$192,230	$1.65
Interior	$588,571	$0	$0	$43,098	$124,010	$66,974	$0	$440,911	$64,677	$976,246	$825,270	$2,541,186	$21.83
Mechanical	$68,270	$0	$0	$0	$7,628	$9,767	$101,258	$28,941	$13,663	$0	$150,187	$311,444	$2.68
Electrical	$19,957	$0	$14,260	$9,602	$0	$0	$0	$0	$19,755	$0	$0	$43,617	$0.37
Plumbing	$69,172	$0	$0	$0	$951	$1,829	$0	$103,284	$0	$0	$0	$106,064	$0.91
Fire and Life Safety	$8,923	$0	$0	$7,034	$0	$0	$334,134	$0	$0	$0	$0	$341,168	$2.93
Technology	$1,003,144	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0.00
Specialties	$18,910	$0	$0	$22,376	$0	$0	$0	$0	$0	$0	$0	$22,376	$0.19
Total	**$4,207,817**	**$0**	**$14,260**	**$199,045**	**$132,589**	**$188,090**	**$435,392**	**$573,136**	**$1,080,726**	**$976,246**	**$1,356,037**	**$4,955,521**	**$42.57**

DRAFT

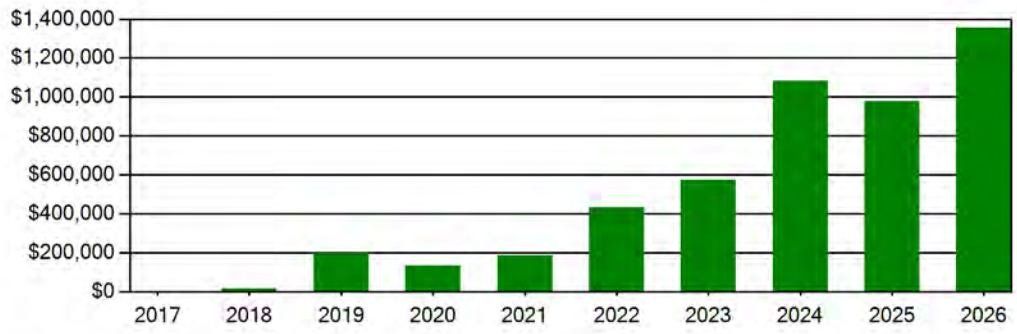


Figure 4: Life Cycle Capital Renewal Forecast

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 National Association of College and University Business Officers has suggested for college planning that an FCI of less than 5 percent is good, an FCI between 5 and 10 percent is fair, and an FCI greater than 10 percent is poor. In K-12 public school planning, the gulf between 10 percent and 100 percent is just not stratified enough. Jacobs has used the following ranges to provide a little more gradation. FCI's less than 10 percent are considered good, 10 to 60 percent is fair, and anything greater than 60 percent is poor. Financial modeling has shown that over a 30-year period, schools that fall in the 65 percent or greater range are more cost-effective to replace than to repair. This is due to efficiency gains with more modern facilities 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/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 decision.

The FCI is calculated by dividing the total repair cost, including site-related repairs, by the total replacement cost. Costs associated with new construction are not included in the FCI calculation. As a general rule, an FCI below 10% is considered good. An economic analysis generally suggests that FCIs greater than 65 percent represent the point where facilities should be considered for replacement. This value typically indicates the point where further expenditures on a building offer little return when compared to the potential cost of replacing that facility.

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 $38,412,000. The total current cost for all deficiencies is $4,207,817.

The North Smithfield Middle School facility has an overall FCI of 10.95%.

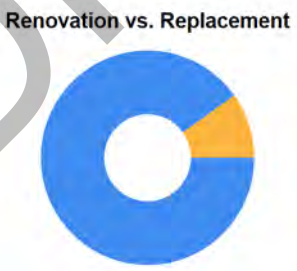


Figure 5: Renovation vs Replacement

DRAFT

Five Year FCI

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. For planning purposes, the total five-year need at North Smithfield Middle School is $4,741,801 (Life Cycle Yrs 1-5 plus the Current Deficiencies)

A five year FCI was calculated by dividing the five year need by the total replacement cost. The North Smithfield Middle School facility has a five year FCI of 12.34% (Life Cycle Yrs 1-5 plus Current Deficiencies divided by the Total Replacement Cost).

Summary of Findings

The table below summarizes the condition findings at North Smithfield Middle School.

Table 4: Facility Condition by Building

Number	Building Name	Gross Sq Ft	Built Date	Current Deficiencies	FCI	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
	Exterior Site			$2,425,911		$2,425,911	
01	Main Building	114,000	2008	$1,661,443	4.42%	$1,785,453	4.75%
02	Building 02	2,400	1928	$120,464	15.21%	$530,438	66.97%
Totals		**116,400**		**$4,207,817**	**10.95%**	**$4,741,801**	**12.34%**

The following pages provide a listing of all current deficiencies and 10 year life cycle need for the site and building and the associated costs, followed by photos taken during the assessment.

DRAFT

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Paving Requires Replacement	Capital Renewal	3	CAR	4	$9,859	4599
Note: Cracking at the northern side main drain.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,674	28523
Note: Backstops Require Replacement						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$95,580	28090
Note: PE / Recess Playfield is Missing and is Needed						
	Sub Total for System	**3**	**items**		**$134,113**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Cafeteria does not meet standard size	Educational Adequacy	2,367	SF	4	$1,493,170	53353
Note: Cafeteria does not meet required RI standard for space size. (Std=6783.75 sf, Current=4416 sf)						
Media Center does not meet size standard	Educational Adequacy	1,266	SF	4	$798,628	53240
Note: Library/Media Center does not meet required RI standard for space size. (Std=4266.75 sf, Current=3000 sf)						
	Sub Total for System	**2**	**items**		**$2,291,798**	
	Sub Total for School and Site Level	**5**	**items**		**$2,425,911**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Roof Drains Require Cleaning	Capital Renewal	10	Ea.	2	$396	4617
Note: Roof drains are blocked allowing ice to form on the roof.						
	Sub Total for System	**1**	**items**		**$396**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Caulking Requires Replacement	Capital Renewal	300	LF	4	$4,563	4602
Note: Sealant around windows is failing and allowing for water infiltration.						
Location: Rooms 340 and 103						
	Sub Total for System	**1**	**items**		**$4,563**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Interior Door Hardware Requires Replacement	Capital Renewal	1	Door	2	$3,137	4610
Note: Lock is missing.						
Location: Room 341						
Interior CMU Walls Require Repair	Capital Renewal	1,000	SF	3	$36,317	4611
Note: Several large cracks exist in the CMU that should be repaired.						
Location: Hallways						
Room Is Excessively Reverberant	Acoustics	3,000	SF	3	$67,384	27957
Location: Gym						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	200	SF	3	$1,806	4603
Interior Gypsum Board Walls Require Repair	Capital Renewal	100	SF Wall	4	$731	4618
Note: Gypsum board wall is cracking at windows.						
Interior Toilet Partition Requires Repair	Capital Renewal	1	Ea.	4	$523	4609
Note: Toilet partition was installed crooked and should be repaired.						
Location: Third floor boys restroom						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	64,270	SF	4	$424,654	4613
The Concrete Flooring Requires Replacement	Capital Renewal	30	SF	4	$391	4619
Note: Floor slab is not sloping to the drain in the shower/toilet room in the boy's locker room office on the first floor.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	310	SF	4	$3,556	4606
Note: There are large cracks, particularly near expansion joints, gapping at seams, and corrosion and tile displacement.						
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$413	Rollup
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	$3,498	Rollup
	Sub Total for System	**11**	**items**		**$542,410**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	40	Ea.	5	$19,957	Rollup
	Sub Total for System	**1**	**items**		**$19,957**	

DRAFT

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Booster Pump Is Missing And Needed	Functional Deficiency	1	Ea.	2	$38,028	4615
Note: The drinking fountains on the first floor do not have adequate pressure. A booster pump should be installed to provide adequate capacity to the drinking fountains.						
The Existing Lavatory/Sink Pipes Are Not Insulated Correctly	Barrier to Accessibility	28	LF	3	$1,331	4608
Note: Sinks are missing pipe insulation.						
Room lacks a drinking fountain.	Educational Adequacy	5	Ea.	5	$5,544	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	12	Ea.	5	$18,237	Rollup
	Sub Total for System	**4**	**items**		**$63,139**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks shut-off valves for utilities.	Educational Adequacy	3	Ea.	3	$8,923	Rollup
	Sub Total for System	**1**	**items**		**$8,923**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	$3,011	Rollup
Technology: Campus lacks security electronic access control.	Technology	2	Ea.	3	$15,211	3900
Note: Keyscan Access Control System add 2 doors						
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	1	Ea.	3	$9,507	3897
Note: Refresh AV system in Library.						
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	20	Ea.	3	$399,293	3898
Note: Technology: Add new classroom AV/Multimedia systems to support digital formats.						
Technology: Gymnasium sound system is nonexisitant, inadequate, or near end of useful life.	Technology	1	Ea.	3	$9,127	3903
Note: Refresh gym audio system						
Technology: Instructional spaces do not have local sound reinforcement.	Technology	30	Ea.	3	$142,605	3895
Note: Add sound reinforcement found in instructions spaces						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,324	3887
Note: IDF 338 needs grounding system improvements.						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,324	3889
Note: IDF 134 needs grounding system improvements.						
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,324	3892
Note: IDF 160A needs grounding system improvements.						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	3888
Note: IDF 134 needs to be rezoned. Room to small						
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	3891
Note: IDF 160A needs to be rezoned. Room to small						
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	3886
Note: MDF has no ground system.						
Technology: Main Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$21,676	3885
Note: MDF 238- Very minor improvements						
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	10,000	SF	3	$17,113	3902
Note: Add integration with phone system to PA/Bell/Clock system. Expand coverage.						
Technology: Security cameras and recording system are inadequate and/or near end of useful life.	Technology	28	Ea.	3	$133,098	3901
Note: Digital camera system with 10 IP Cameras refresh and add 18 additional IP Cameras						
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$54,190	3896
Note: Add AV system to cafetorium.						
Technology: Special Space AV/Multimedia systems are in need of minor improvements.	Technology	2	Room	3	$38,028	3899
Note: Technology: Improve special space AV/Multimedia systems.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	3890
Note: IDF 134 needs dedicated AC unit.						
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	3893
Note: IDF 160A needs dedicated AC unit.						
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	30	Ea.	3	$45,633	3905
Note: Replace/add telephone handsets in classrooms and office spaces.						
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	3904
Note: Phone system is aging Toshiba Strata analog, replace.						
	Sub Total for System	**21**	**items**		**$1,003,144**	

DRAFT

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	$1,178	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	3	Ea.	5	$17,732	Rollup
	Sub Total for System	**2**	**items**		**$18,910**	
	Sub Total for Building 01 - Main Building	**42**	**items**		**$1,661,443**	

Building: 02 - Building 02

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Ceiling Grid Requires Replacement	Capital Renewal	1,200	SF	4	$14,233	8357
Note: Original ceiling grid.						
Interior Wood Walls Require Replacement	Capital Renewal	2,160	SF	4	$19,714	8358
Note: Wood panels are in disrepair.						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	1,200	SF	4	$10,838	8355
Note: Tiles are missing and sagging.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	120	SF	4	$1,377	8356
Note: VCT is outdated and worn.						
Location: Basement						
	Sub Total for System	**4**	**items**		**$46,161**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Window AC Unit Component Requires Replacement	Capital Renewal	1	Ea.	2	$3,339	4622
Note: Aged window unit is not operational.						
Ductwork Requires Replacement (SF Basis)	Capital Renewal	2,400	SF	3	$35,283	4624
Note: Ductwork is no longer sealed at the joints and rust is beginning to appear.						
The Fin Tube Water Radiant Heater Requires Replacement	Capital Renewal	15	Ea.	3	$25,127	4623
Note: Baseboard heaters are old and damaged.						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	2,400	SF	4	$4,521	4625
Note: Non-functional thermostats.						
	Sub Total for System	**4**	**items**		**$68,270**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Toilets Plumbing Fixtures Require Replacement	Capital Renewal	1	Ea.	3	$2,852	4621
Note: Toilet is an old tank style unit with significant discoloration and staining in the bowl.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	1	Ea.	4	$3,181	4620
Note: Sink is aged and stained.						
	Sub Total for System	**2**	**items**		**$6,033**	
	Sub Total for Building 02 - Building 02	**10**	**items**		**$120,464**	
	Total for Campus	**57**	**items**		**$4,207,817**	

DRAFT

North Smithfield Middle School - Life Cycle Summary Yrs 1-10

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Parking Lot Pavement	Asphalt	297	CAR	$982,631	8
Note:	Parking lot and bus drives				
Pedestrian Pavement	Sidewalks - Concrete	2,000	SF	$40,879	10
Playfield Areas	MS Athletic Components	1	Ea.	$339,701	10
	Sub Total for System	**3**	**items**	**$1,363,211**	
	Sub Total for Building -	**3**	**items**	**$1,363,211**	

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet	5,700	SF	$124,010	4
Wall Coverings	Vinyl/Fabric Wall Covering	2,280	SF	$16,257	7
Wall Painting and Coating	Painting/Staining (Bldg SF)	64,270	SF	$424,654	7
Suspended Plaster and	Painted ceilings	11,400	SF	$47,687	8
Wall Paneling	Acoustical Panel Wall	1,850	SF	$16,990	8
Resilient Flooring	Vinyl Composition Tile Flooring	68,000	SF	$780,079	9
Resilient Flooring	Vinyl Composition Tile Flooring	17,100	SF	$196,167	9
Note:	Sheet vinyl				
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	91,200	SF	$823,684	10
	Sub Total for System	**8**	**items**	**$2,429,527**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Other HVAC Distribution Systems	VFD (15 HP)	2	Ea.	$20,820	7
Decentralized Cooling	Condenser - Outside Air Cooled (3 Tons)	1	Ea.	$8,121	7
Decentralized Cooling	Ductless Split System (2 Ton)	2	Ea.	$13,663	8
Decentralized Cooling	Fan Coil - Water Cool/Water Heat (3 Ton)	28	Ea.	$150,187	10
	Sub Total for System	**4**	**items**	**$192,792**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)	10	Ea.	$13,785	8
	Sub Total for System	**1**	**items**	**$13,785**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain	14	Ea.	$103,284	7
	Sub Total for System	**1**	**items**	**$103,284**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	114,000	SF	$334,134	6
	Sub Total for System	**1**	**items**	**$334,134**	
	Sub Total for Building 01 - Main Building	**15**	**items**	**$3,073,522**	

Building: 02 - Building 02

Roofing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Steep Slope Roofing	Composition Shingle	1,200	SF	$34,225	3
	Sub Total for System	**1**	**items**	**$34,225**	

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Operating Windows	Wood - Windows per SF	360	SF	$68,735	3
Exterior Entrance Doors	Storefront Doors - Glass/Aluminum	3	Door	$13,975	3
Exterior Wall Veneer	Brick - Bldg SF basis	2,400	SF	$109,520	5
	Sub Total for System	**3**	**items**	**$192,231**	

DRAFT

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	240	SF	$1,586	3
Wood Flooring	Wood Flooring - All Types	1,000	SF	$33,179	3
Note:	Original flooring				
Carpeting	Carpet	200	SF	$4,351	3
Wood Flooring	Wood Flooring - All Types	120	SF	$3,982	3
Note:	Original plywood floor				
Interior Swinging Doors	Wood	6	Door	$27,665	5
Interior Door Supplementary Components	Door Hardware	6	Door	$18,824	5
Flooring Treatment	Concrete Floor - Finished	960	SF	$12,499	5
Note:	Original floor in basement				
Specialty Suspended Ceilings	Ceiling - Wood	1,200	SF	$7,986	5
Wall Painting and Coating	Painting/Staining (Bldg SF)	240	SF	$1,586	10
	Sub Total for System	**9**	**items**	**$111,658**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)	1	Ea.	$7,628	4
Note:	Fuel oil pump				
Decentralized Cooling	Condensing Unit (3 Ton)	1	Ea.	$7,130	5
Exhaust Air	Roof Exhaust Fan - Small	1	Ea.	$2,637	5
HVAC Air Distribution	AHU 5,000 CFM Interior	1	Ea.	$101,258	6
	Sub Total for System	**4**	**items**	**$118,654**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Light Fixtures (Bldg SF)	2,400	SF	$14,260	2
Power Distribution	Panelboard - 120/240 225A	1	Ea.	$9,602	3
Lighting Fixtures	Building Mounted Fixtures (Ea.)	4	Ea.	$5,970	8
	Sub Total for System	**3**	**items**	**$29,833**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fuel Storage Tanks	Above Ground Fuel Oil StorageTank (275 Gal)	2	Ea.	$951	4
Domestic Water Equipment	Water Heater - Electric - 10 gallon	1	Ea.	$1,829	5
	Sub Total for System	**2**	**items**	**$2,780**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	2,400	SF	$7,034	3
	Sub Total for System	**1**	**items**	**$7,034**	

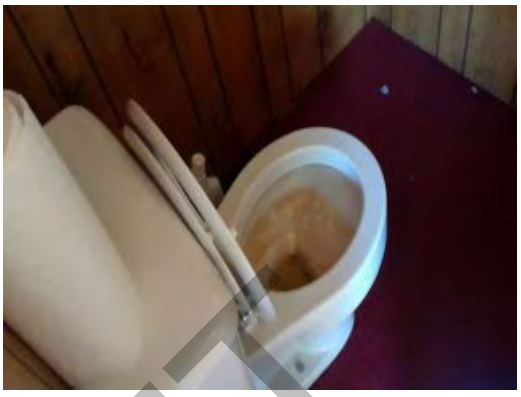
Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry	2	Room	$22,376	3
	Sub Total for System	**1**	**items**	**$22,376**	
	Sub Total for Building 02 - Building 02	**24**	**items**	**$518,790**	
	Total for: North Smithfield Middle School	**42**	**items**	**$4,955,523**	

DRAFT

Supporting Photos

Damaged Baseboard Heater



Aged And Stained Toilet

Site Aerial

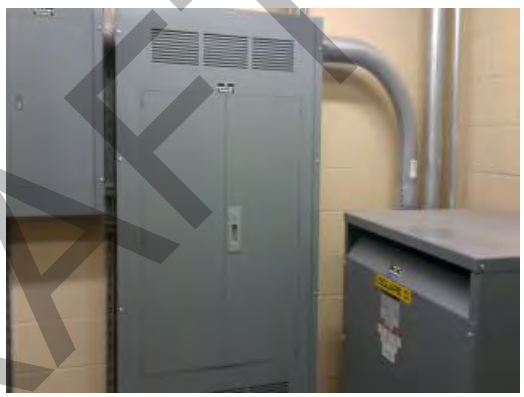
Front Entrance

DRAFT

School Signage


Generator

Fire Protection Entrance


Distribution Panel

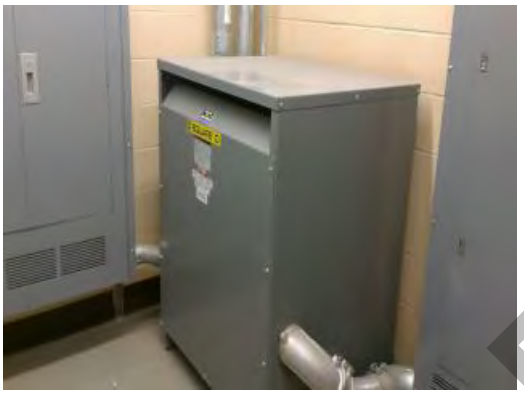

Half-Bradley Wash Basin

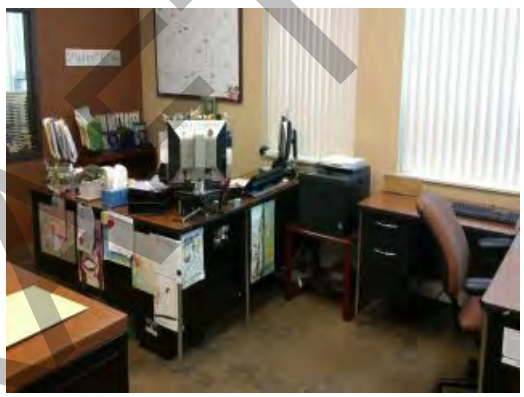

Cafeteria

DRAFT


DDC Control Panel


Shower Stalls


Transformer


Typical Office

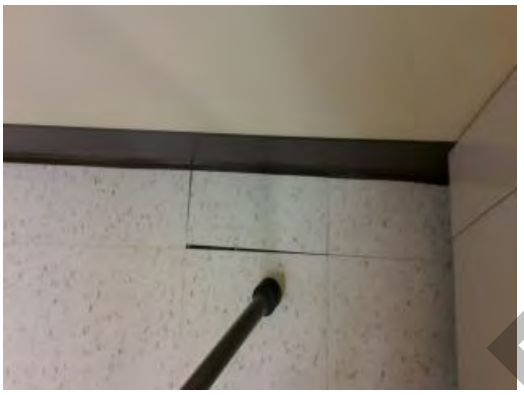

Variable Frequency Drive


Rooftop Unit

DRAFT


Staff Restroom Fixtures And Finishes


Domestic Water Boilers


Separating Vinyl Tiles


Cracking Asphalt At Main Drain


Cracking At Asphalt Joint


Failed Sealant Allowing Leaks

DRAFT

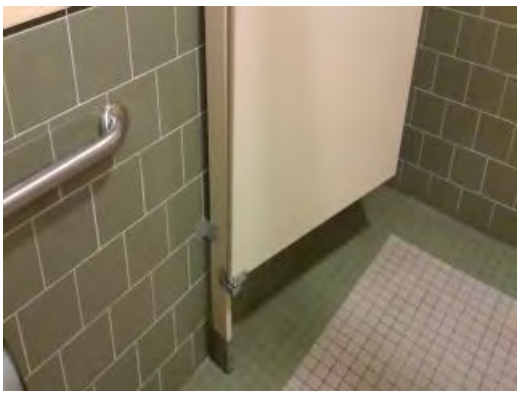

Sealant Failing At Window


Worn And Stained VCT


Stained Ceiling Tile

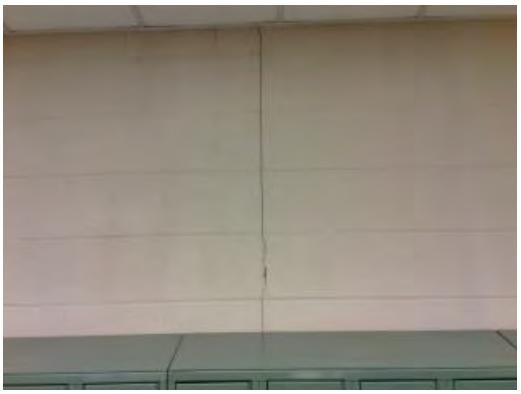

Cracked VCT Floor

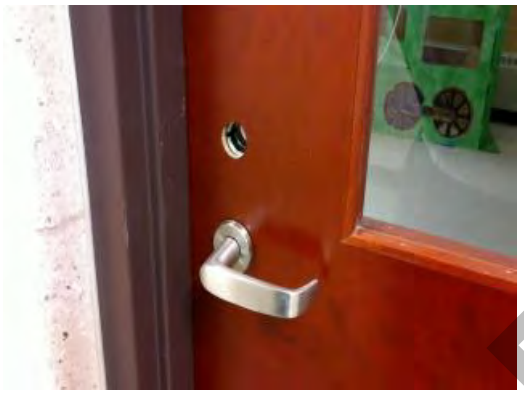
Dedication Plaque


Crooked Toilet Partition

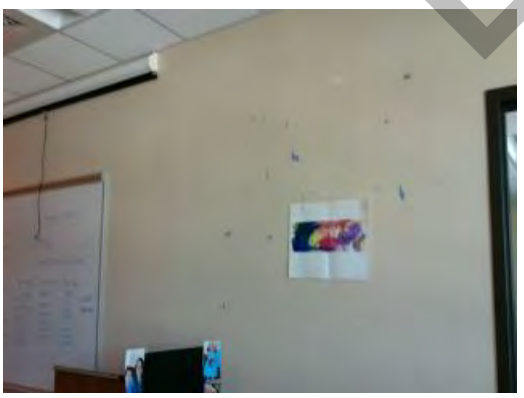
DRAFT


Pipe Missing Insulation


Cracked CMU Wall

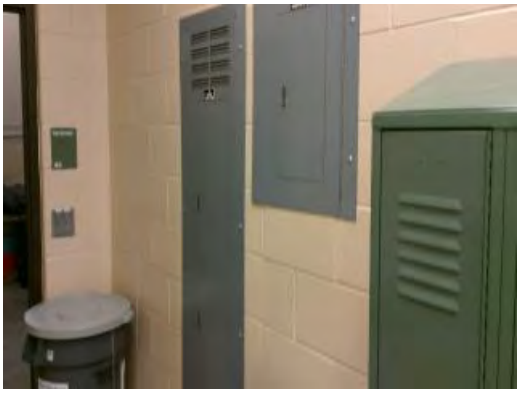

Missing Door Lock


Typical Chipped Paint


Typical Chipped Paint


Heating Water Boilers

DRAFT



Typical Electrical Panels

Typical Drinking Fountains

Hallway Finishes

Exterior Finishes

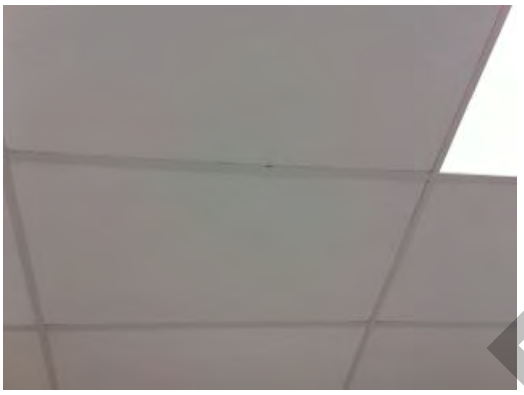
Typical Classroom

Restroom Fixtures And Finishes

DRAFT


Kitchen


Room 350


Room 350


Damaged Gypsum Board Wall


Blocked Roof Drain


Cafeteria/Gymnasium

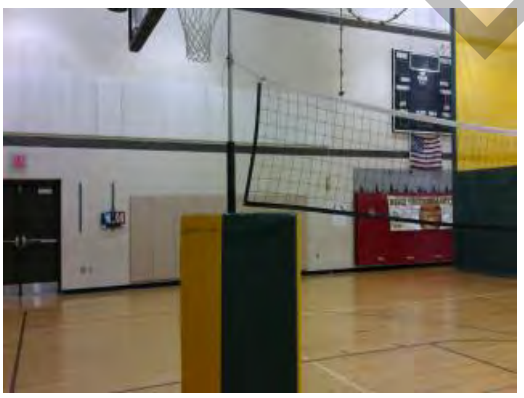
DRAFT

Water Damage Due To Floor Slope At Shower

Science Lab

Exterior Finishes

Worn Vinyl Tile



Gymnasium

Electrical Service

DRAFT


Fuel Oil Storage Tanks


Water Heater

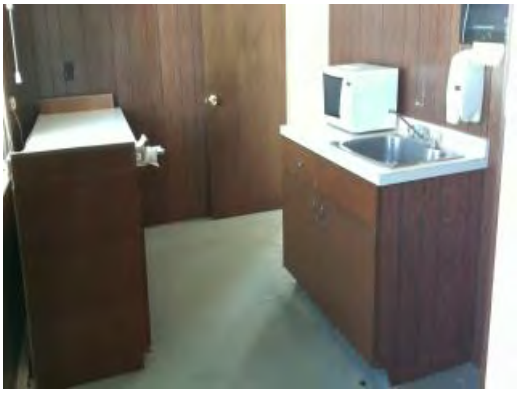

Rear Elevation


Furnace

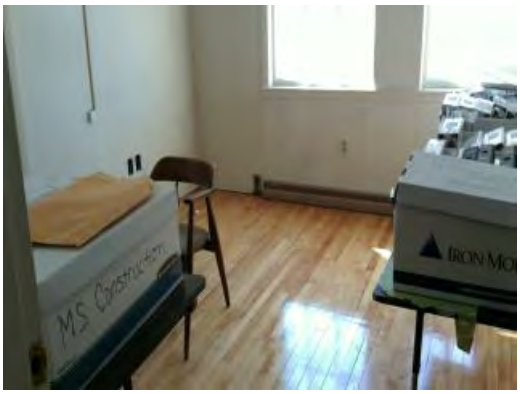

Side Elevation


Elevation

DRAFT

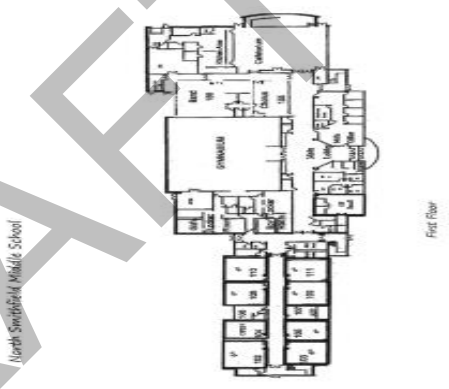


Casework

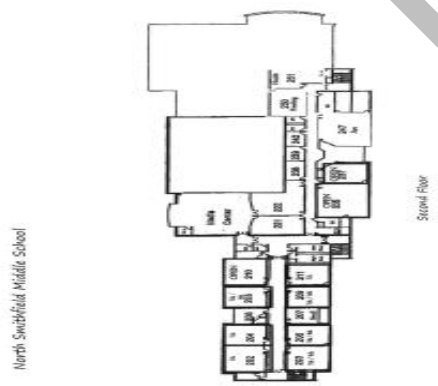


Hardwood Floor

Elevation



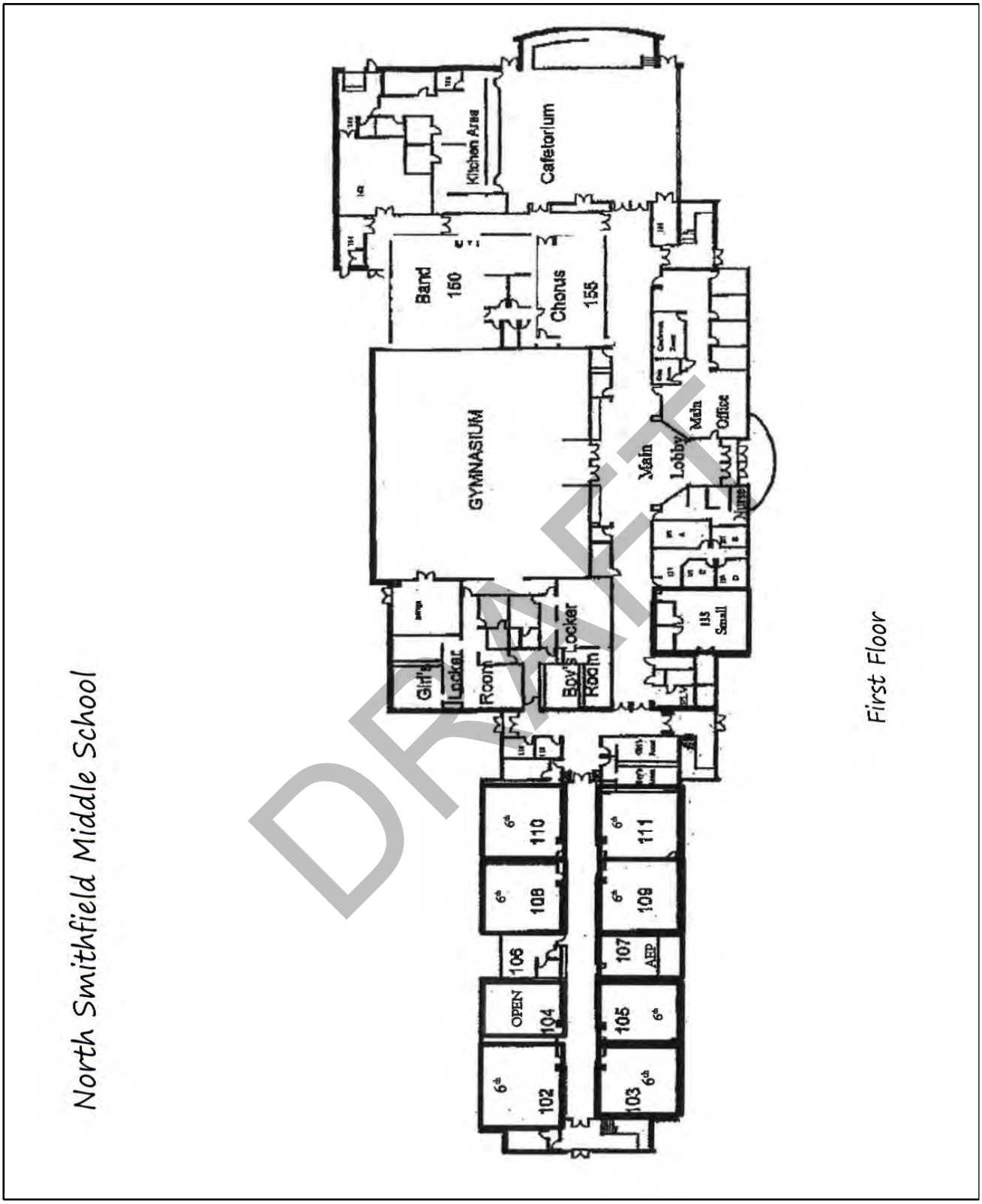
Floor_Plan_01_First



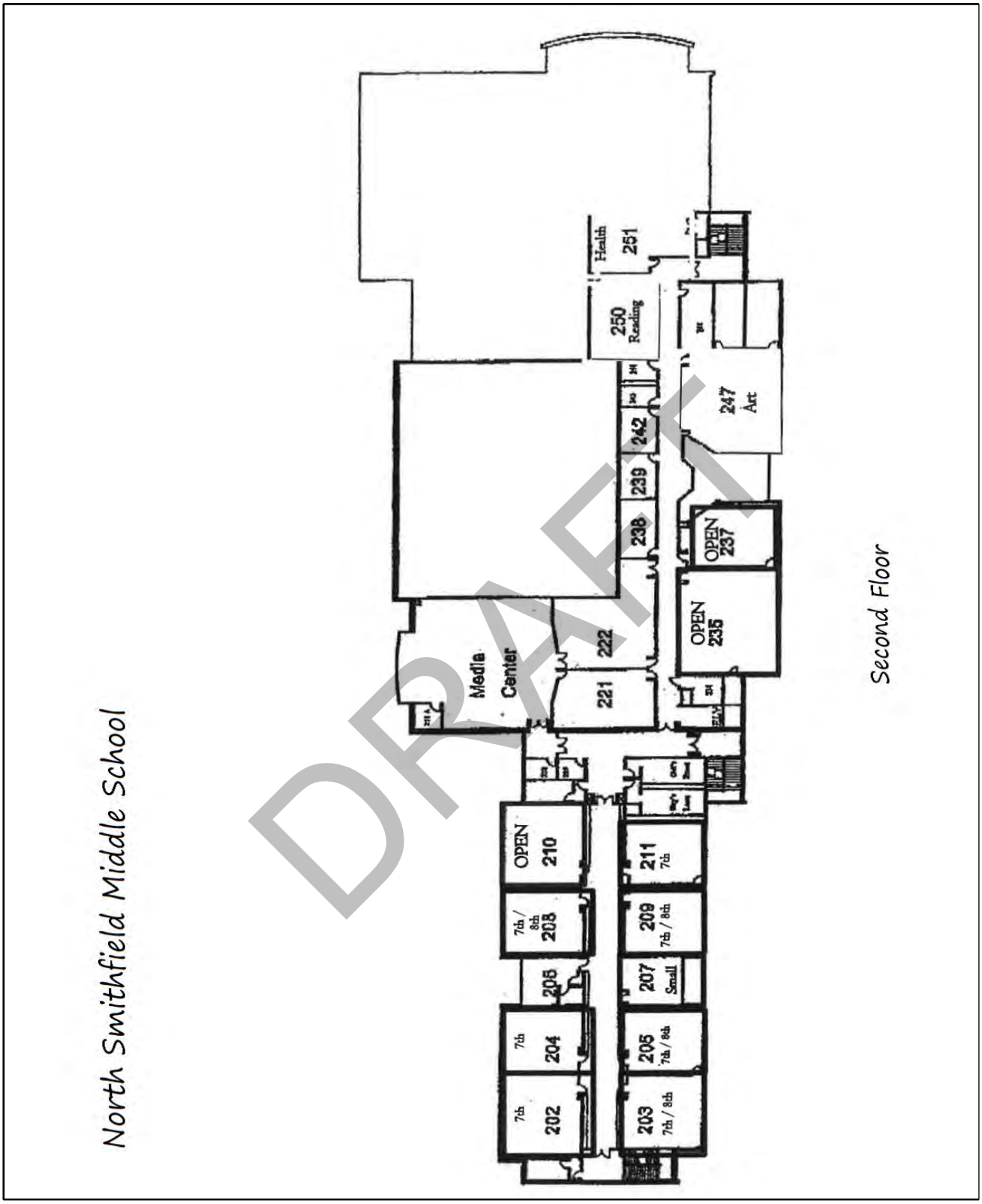
Floor_Plan_02_Second

Floor_Plan_03_Third

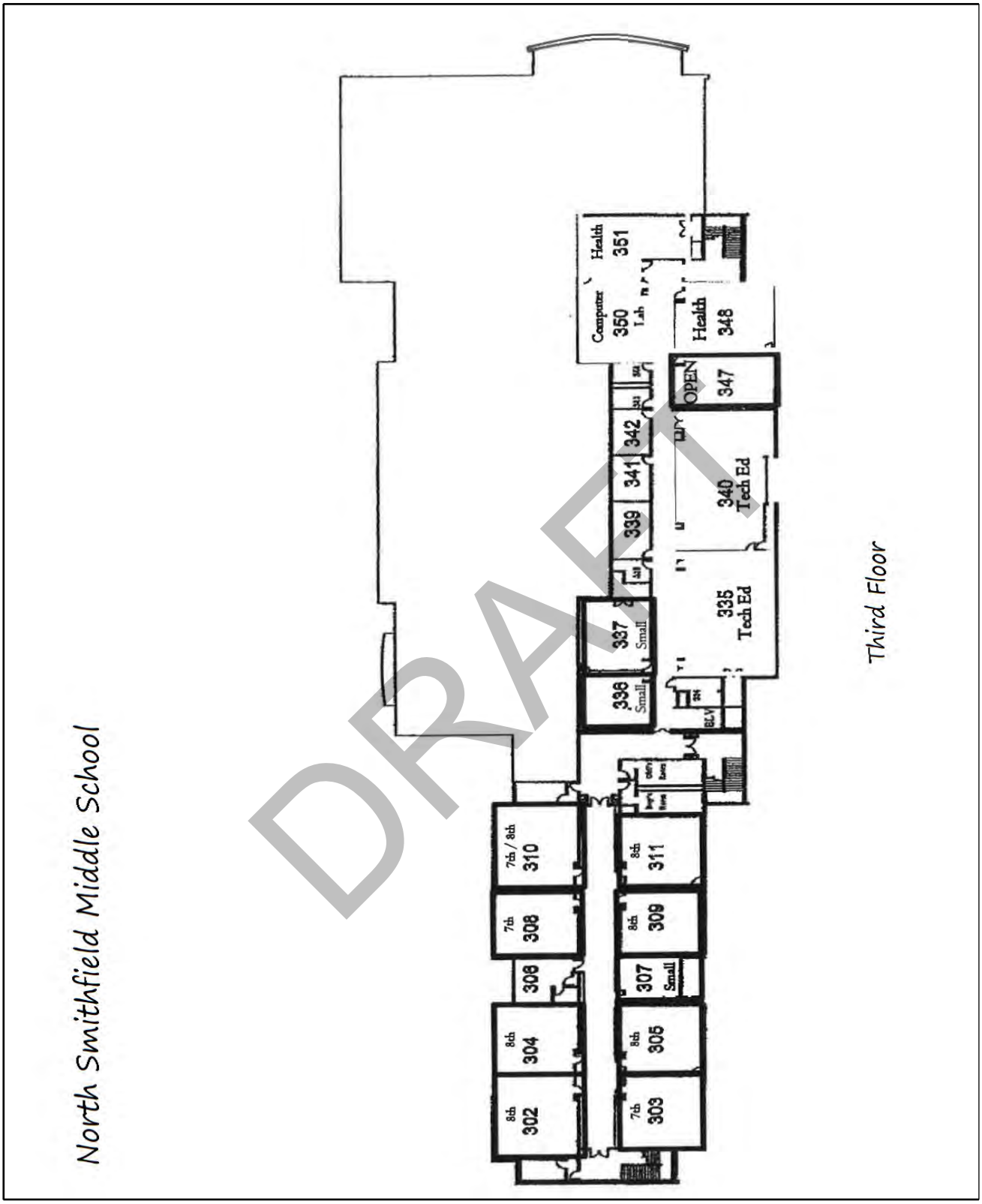
DRAFT



Floor_Plan_01_First



Floor_Plan_02_Second



Floor_Plan_03_Third