



Facility Condition Assessment

Barrington - Barrington High School

June 2017

220 Lincoln Avenue, Barrington, RI 02806





Introduction

Barrington High School, located at 220 Lincoln Avenue in Barrington, Rhode Island, was built in 1950. It comprises 177,600 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Barrington High School serves grades 9 - 12, has 83 instructional spaces, and has an enrollment of 1,028. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Barrington High School is 1,200 with a resulting utilization of 86%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Barrington High School the 5-year need is \$12,312,369. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.



Figure 1: Aerial view of Barrington High School



Approach and Methodology

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

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

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

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

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.



System Summaries

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

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Asphalt Pedestrian Pavement
	Concrete Pedestrian Pavement

Building Envelope

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

01 - Main Building:	Brick Exterior Wall
	Aluminum Exterior Windows
	Steel Exterior Entrance Doors
02 - Press Box:	Painted Exterior Wall
	Metal Panel Exterior Wall
	Aluminum Exterior Windows
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
03 - Field Storage:	CMU Exterior Wall
	Painted Exterior Wall
	Overhead Exterior Utility Doors
04 - Field Storage:	CMU Exterior Wall
	Painted Exterior Wall
	Overhead Exterior Utility Doors
05 - Storage:	CMU Exterior Wall
	Painted Exterior Wall
	Overhead Exterior Utility Doors

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

01 - Main Building:	Composition Shingle Roofing
	Modified Bitumen Roofing
02 - Press Box:	Modified Bitumen Roofing
03 - Field Storage:	Composition Shingle Roofing
04 - Field Storage:	Composition Shingle Roofing
05 - Storage:	Modified Bitumen Roofing



Interior

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

01 - Main Building:	Wood Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Wood Ceilings
	Ceramic Tile Wall
	Wood Wall Paneling
	Interior Wall Painting
	Concrete Flooring
	Quarry Tile Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Rubber Tile Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
	Carpet
02 - Press Box:	Wood Interior Doors
	Interior Door Hardware
	Door Hardware
	Painted Ceilings
	Interior Wall Painting
	Vinyl Composition Tile Flooring
03 - Field Storage:	Exposed Metal Structure Ceiling
	Interior Wall Painting
	Concrete Flooring
04 - Field Storage:	Exposed Metal Structure Ceiling
	Interior Wall Painting
	Concrete Flooring
05 - Storage:	Exposed Metal Structure Ceiling
	Interior Wall Painting
	Concrete Flooring

Mechanical

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

01 - Main Building:	3,264 MBH Cast Iron Water Boiler
	400 MBH Cast Iron Water Boiler
	4,488 MBH Cast Iron Water Boiler



01 - Main Building:	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	DDC Heating System Controls
	2 Ton Ductless Split System
	5 Ton Package DX Unit
	10 Ton Package DX Unit
	20 Ton Package DX Unit
	Make-up Air Unit
	1 HP or Smaller Pump
	10 HP Pump
	25 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	2,000 CFM Interior AHU
	5,000 CFM Interior AHU
	Ductwork
	Dehumidifier
	Large Roof Exhaust Fan
	Small Roof Exhaust Fan
	Supply Fan
	Fire Sprinkler System

Plumbing

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

01 - Main Building:	100 Gallon Water Storage Tank
	2" Backflow Preventers
	3/4" Backflow Preventers
	4" Backflow Preventers
02 - Press Box:	40 Gallon Electric Water Heater
01 - Main Building:	Domestic Water Piping System
02 - Press Box:	Domestic Water Piping System
01 - Main Building:	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
02 - Press Box:	Lavatories
01 - Main Building:	Sump Pump



Electrical

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

01 - Main Building:	150 kW Emergency Generator
	Automatic Transfer Switch
	225 KVA Transformer
	500 KVA Transformer
	Electrical Service
	1600 Amp Distribution Panel
	Electrical Disconnect
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
	Light Fixtures
02 - Press Box:	50 kW Emergency Generator
	Automatic Transfer Switch
	30 KVA Transformer
	Panelboard - 277/480 225A
	Light Fixtures
	Canopy Mounted Lighting Fixtures
04 - Field Storage:	Light Fixtures
05 - Storage:	Light Fixtures



Facility Deficiency Priority Levels

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

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

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

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

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

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



Facility Condition Assessment

Barrington - Barrington High School

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

Table 1: System by Priority

System	Priority					Total	% of Total
	1	2	3	4	5		
Site	-	-	\$45,326	\$28,329	\$15,298	\$88,953	1.56 %
Roofing	-	-	\$238	-	\$7,358	\$7,596	0.13 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	-	-	\$6,180	-	\$6,180	0.11 %
Interior	-	-	\$584,126	\$214,865	\$8,543	\$807,534	14.18 %
Mechanical	-	-	\$329,340	\$90,621	\$159,717	\$579,678	10.18 %
Electrical	-	\$566,759	\$30,022	-	\$138,306	\$735,087	12.90 %
Plumbing	-	-	\$3,166	\$7,330	\$33,826	\$44,322	0.78 %
Fire and Life Safety	\$26,592	-	-	-	-	\$26,592	0.47 %
Technology	-	-	\$3,252,201	-	-	\$3,252,201	57.09 %
Conveyances	-	-	-	-	-	\$0	0.00 %
Specialties	-	-	\$4,563	\$100,746	\$42,781	\$148,091	2.60 %
Total	\$26,592	\$566,759	\$4,248,982	\$448,071	\$405,829	\$5,696,233	

*Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Technology	-	\$3,252,201
Interior	-	\$807,534
Electrical	-	\$735,087

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

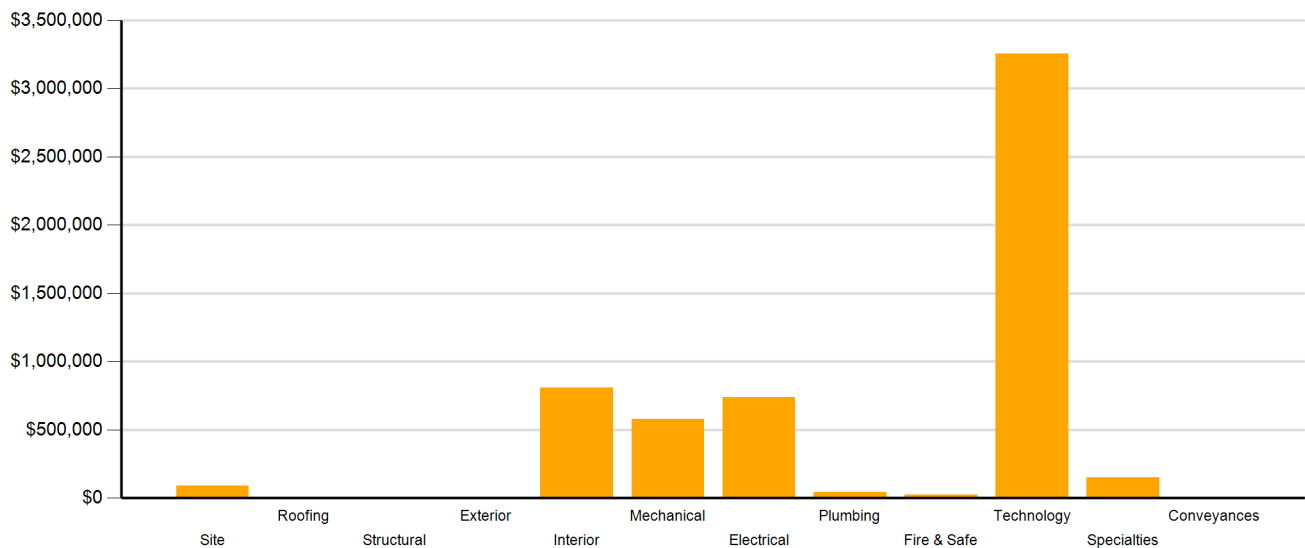


Figure 2: System Deficiencies



Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insulation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.
- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.
- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.
- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.
- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.
- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.
- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.
- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.
- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.



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

Table 2: Deficiency Category by Priority

Category	Priority					Total
	1	2	3	4	5	
Acoustics	-	-	\$582,635	-	-	\$582,635
Barrier to Accessibility	-	-	-	-	-	\$0
Capital Renewal	\$3,775	\$566,759	\$354,588	\$18,184	\$185,695	\$1,129,000
Code Compliance	-	-	-	-	-	\$0
Educational Adequacy	\$22,817	-	\$284,068	\$217,018	\$220,087	\$743,990
Functional Deficiency	-	-	\$9,669	-	-	\$9,669
Hazardous Material	-	-	-	\$212,869	\$48	\$212,916
Technology	-	-	\$2,972,696	-	-	\$2,972,696
Traffic	-	-	\$45,326	-	-	\$45,326
Total	\$26,592	\$566,759	\$4,248,982	\$448,071	\$405,829	\$5,696,233

*Displayed totals may not sum exactly due to mathematical rounding

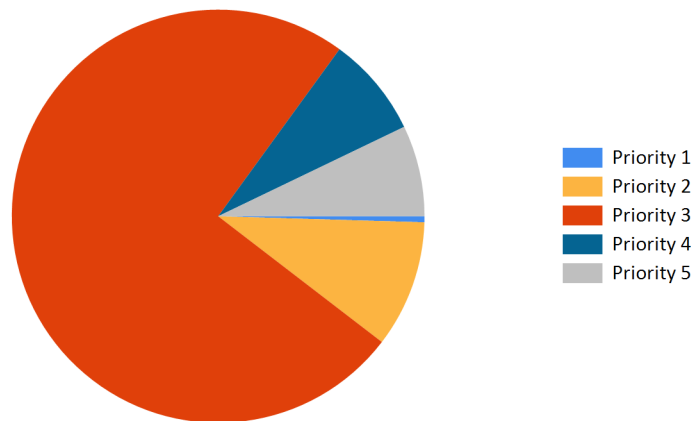


Figure 3: Current deficiencies by priority



Life Cycle Capital Renewal Forecast

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

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

System	Current Deficiencies	Life Cycle Capital Renewal Projections					LC Yr. 1-5 Total	Total 5-Year Need
		Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021		
Site	\$88,953	\$0	\$0	\$0	\$0	\$0	\$0	\$88,953
Roofing	\$7,596	\$0	\$0	\$2,826,422	\$0	\$729,185	\$3,555,607	\$3,563,203
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$6,180	\$0	\$0	\$0	\$0	\$58,088	\$58,088	\$64,268
Interior	\$807,534	\$0	\$29,733	\$0	\$1,052,028	\$10,571	\$1,092,332	\$1,899,866
Mechanical	\$579,678	\$0	\$0	\$1,745,857	\$0	\$111,148	\$1,857,005	\$2,436,683
Electrical	\$735,087	\$0	\$0	\$0	\$0	\$1,783	\$1,783	\$736,870
Plumbing	\$44,322	\$0	\$0	\$3,921	\$36,887	\$1,449	\$42,257	\$86,579
Fire and Life Safety	\$26,592	\$0	\$0	\$0	\$0	\$0	\$0	\$26,592
Technology	\$3,252,201	\$0	\$0	\$0	\$0	\$0	\$0	\$3,252,201
Conveyances	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Specialties	\$148,091	\$0	\$0	\$0	\$0	\$0	\$0	\$148,091
Total	\$5,696,233	\$0	\$29,733	\$4,576,200	\$1,088,915	\$912,224	\$6,607,072	\$12,303,305

*Displayed totals may not sum exactly due to mathematical rounding

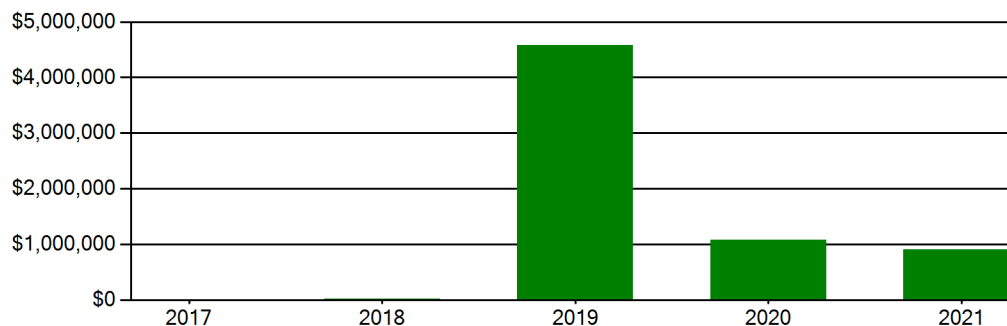
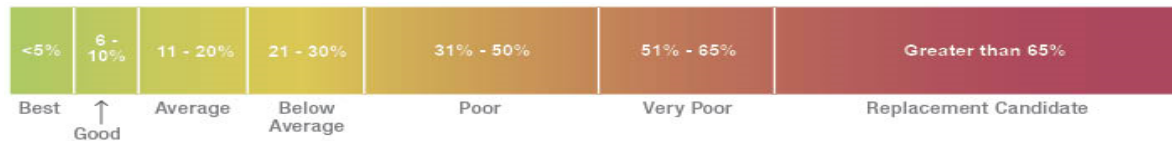


Figure 4: Life Cycle Capital Renewal Forecast



Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is \$63,936,000. For planning purposes, the total 5-year need at the Barrington High School is \$12,312,369 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Barrington High School facility has a 5-year FCI of 19.24%.

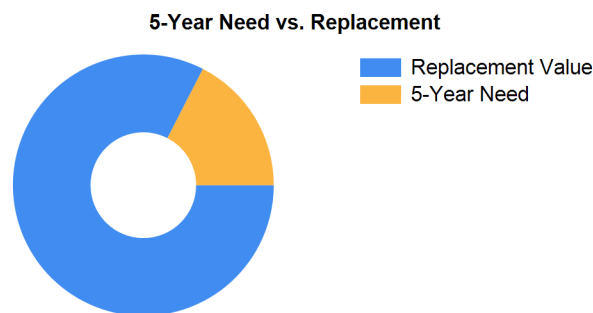


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.



Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 945 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Barrington High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$0.



Summary of Findings

The Barrington High School comprises 177,600 square feet and was constructed in 1950. Current deficiencies at this school total \$5,705,297. Five year capital renewal costs total \$6,607,072. The total identified need for the Barrington High School (current deficiencies and 5-year capital renewal costs) is \$12,312,369. The 5-year FCI is 19.24%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Barrington High School Totals	177,600	1950	\$5,705,297	\$6,607,072	\$12,312,369	19.24%

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

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.



Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Sidewalk Requires Replacement Note: Replace sidewalk along Lincoln Avenue from Upland Avenue to County Road	Traffic	2,000	SF	3	\$45,326	4472
Backstops Require Replacement Note: Backstops Require Replacement	Educational Adequacy	1	Ea.	4	\$28,329	28399
Tennis Courts, Nets, And Equipment Require Repair Note: The expansion joints for the tennis courts need to be caulked.	Capital Renewal	6	Ea.	5	\$15,298	2079
Sub Total for System		3 items			\$88,953	
Sub Total for School and Site Level		3 items			\$88,953	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Roof Drains Require Cleaning Location: Over the administration area, band room, and cafeteria	Capital Renewal	6	Ea.	3	\$238	2076
Splash Blocks Are Required Note: Downspouts on the roof are missing splash blocks.	Capital Renewal	18	Ea.	5	\$7,358	2077
Sub Total for System		2 items			\$7,596	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation Note: All classrooms	Acoustics	70	Ea.	3	\$582,635	4632
The Vinyl Composition Tile Requires Replacement Location: Room 116B	Capital Renewal	130	SF	3	\$1,491	1992
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	292	LF	4	\$5,552	Rollup
Light Deterioration or Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	200	SF	4	\$5,704	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	219	Ea.	4	\$62,461	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	7	LF	4	\$160	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	12,990	SF	4	\$123,496	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	1	Ea.	4	\$285	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	361	SF	4	\$3,432	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas (> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - square feet)	Hazardous Material	265	SF	4	\$2,519	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas(> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - each)	Hazardous Material	10	Ea.	4	\$2,852	Rollup
The Plaster Ceilings Require Replacement Note: Ceiling damage in small areas, possibly due to water infiltration.	Capital Renewal	300	SF	4	\$1,996	1967
Wall/ceiling materials - area < 9 sq. ft. AND in children-accessible area	Hazardous Material	169	SF	4	\$1,607	Rollup
Wall/ceiling materials - large areas (> 10 sq. ft.) of damage & area in active use - children	Hazardous Material	335	SF	4	\$3,185	Rollup
Wall/ceiling materials -large areas (> 10 sq. ft.) of damage & area in active use-adults only	Hazardous Material	170	SF	4	\$1,616	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	\$1,536	Rollup
Room lacks appropriate sound control.	Educational Adequacy	200	SF	5	\$6,959	Rollup
Wall/ceiling materials - area < 9 sq. ft. AND NOT in children-accessible area	Hazardous Material	5	SF	5	\$48	Rollup
Sub Total for System		18 items			\$807,534	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Component Insulation Deteriorated And Requires Replacement Note: Older mechanical room, pipe insulation is damaged and should be replaced.	Functional Deficiency	300	LF	3	\$9,669	2075



Facility Condition Assessment

Barrington - Barrington High School

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Testing And Balancing Required Note: Several zones (classroom reported) hot spots in the building.	Capital Renewal	171,500	SF	3	\$319,671	2070
Exhaust Fan Ventilation Requires Replacement Note: Damaged exhaust fan on the eastern side of 200 wing.	Capital Renewal	1	Ea.	4	\$2,678	2073
Lab lacks an appropriate fume hood.	Educational Adequacy	4	Ea.	4	\$87,943	Rollup
Duct Cleaning Required Location: Library and media center wing	Capital Renewal	10,000	SF	5	\$159,717	2071
Sub Total for System		5	items		\$579,678	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Distribution Panel Requires Replacement Location: Boiler room	Capital Renewal	1	Ea.	2	\$51,908	1954
The Electrical Service And Distribution Requires Replacement Note: All panelboards are old and should be replaced. New main distribution panel (2000 amp) is fine.	Capital Renewal	171,500	SF	2	\$514,851	1952
The Mounted Building Lighting Requires Replacement Location: By door 3C	Capital Renewal	1	Ea.	3	\$1,493	2024
The Mounted Building Lighting Requires Replacement Location: By door 4D	Capital Renewal	1	Ea.	3	\$1,493	2025
Transfer Switch Requires Replacement Location: Boiler room	Capital Renewal	800	Amps	3	\$26,800	2082
Wall Pack Lighting Requires Repair Note: Wall facing the football stadium seats.	Capital Renewal	1	Ea.	3	\$238	2022
Remove Abandoned Equipment Note: Incinerator in secondary mechanical room is no longer active.	Capital Renewal	1	Ea.	5	\$3,321	2080
Room Has Insufficient Electrical Outlets	Educational Adequacy	272	Ea.	5	\$134,984	Rollup
Sub Total for System		8	items		\$735,087	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Roof Drainage Piping Requires Repair Note: Roof drain boot connection is damaged. Location: Canopy/kitchen	Capital Renewal	15	LF	3	\$3,166	2078
The Custodial Mop Or Service Sink Requires Replacement Note: Mop sink at the janitor closet off of the gym has significant corrosion.	Capital Renewal	1	Ea.	4	\$2,576	2072
The Refrigerated Water Cooler Requires Repair Note: Bi-level fountain outside the small gym does not have any water pressure. Water fill spouts in the large gym do not work. Location: 500 wing	Capital Renewal	5	Ea.	4	\$4,753	2074
Room lacks a drinking fountain.	Educational Adequacy	6	Ea.	5	\$6,617	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	18	Ea.	5	\$27,209	Rollup
Sub Total for System		5	items		\$44,322	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Emergency Lighting Is Inadequate Or Not Present And Should be Installed Location: Boiler room	Capital Renewal	2,500	SF	1	\$3,775	1960
Room lacks shut-off valves for utilities. (International Fuel Gas Code, Section 409.6)	Educational Adequacy	2	Ea.	1	\$22,817	Rollup
Sub Total for System		2	items		\$26,592	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	49	Ea.	3	\$279,505	Rollup
Technology: Auditorium AV/Multimedia system is in need of minor improvements.	Technology	1	Room	3	\$95,070	3182



Facility Condition Assessment

Barrington - Barrington High School

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	66	Ea.	3	\$1,317,666	3180
Technology: Instructional spaces do not have local sound reinforcement.	Technology	66	Ea.	3	\$313,730	3183
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$37,648	3161
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	\$16,732	3165
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	\$16,732	3169
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	\$16,732	3174
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	\$4,753	3173
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	\$4,753	3178
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,655	3159
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,655	3162
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,655	3166
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,655	3170
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	\$6,655	3175
Technology: Main Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	\$21,676	3158
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	392	Ea.	3	\$167,703	3160
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	48	Ea.	3	\$20,535	3164
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	6	Ea.	3	\$2,567	3168
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	90	Ea.	3	\$38,503	3172
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	90	Ea.	3	\$38,503	3177
Technology: Network system inadequate and/or near end of useful life	Technology	4	Ea.	3	\$30,422	3184
Technology: Network system inadequate and/or near end of useful life	Technology	66	Ea.	3	\$313,730	3185
Technology: Network system inadequate and/or near end of useful life	Technology	177,600	SF	3	\$50,653	3186
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	177,600	SF	3	\$303,919	3179
Technology: Special Space AV/Multimedia system is inadequate.	Technology	2	Ea.	3	\$108,379	3181
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$4,753	3163
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$4,753	3167
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$4,753	3171
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$4,753	3176
Sub Total for System		30	items		\$3,252,201	



Facility Condition Assessment

Barrington - Barrington High School

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	\$4,563	Rollup
Backdrop is Required	Educational Adequacy	1	Ea.	4	\$1,426	Rollup
Walk In Cooler/Freezer Is Required	Educational Adequacy	1	Ea.	4	\$90,316	Rollup
Welding Bays Are Required	Educational Adequacy	1	Ea.	4	\$5,419	Rollup
Work Tables Are Required	Educational Adequacy	1	Ea.	4	\$3,585	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	5	Ea.	5	\$42,781	Rollup
	Sub Total for System	6	items		\$148,091	
	Sub Total for Building 01 - Main Building	76	items		\$5,601,101	

Building: 03 - Field Storage

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Soffit Requires Replacement	Capital Renewal	50	SF	4	\$6,180	2066
	Sub Total for System	1	items		\$6,180	
	Sub Total for Building 03 - Field Storage	1	items		\$6,180	
	Total for Campus	80	items		\$5,696,233	

Buildings with no reported deficiencies

02 - Press Box

04 - Field Storage

05 - Storage



Barrington High School - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Roofing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Low-Slope Roofing	Modified Bitumen	74,325	SF	\$2,826,422	3
Low-Slope Roofing	Modified Bitumen	17,150	SF	\$652,178	5
Sub Total for System		2	items	\$3,478,600	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	159,221	SF	\$1,052,028	4
Sub Total for System		1	items	\$1,052,028	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)	2	Ea.	\$15,257	3
	Note: Hot water recirculating				
Facility Hydronic Distribution	2-Pipe Water System (Hot)	171,500	SF	\$1,321,955	3
Decentralized Cooling	Package DX Unit (5 Ton)	15	Ea.	\$216,246	3
Exhaust Air	Roof Exhaust Fan - Small	58	Ea.	\$152,960	3
Decentralized Cooling	Package DX Unit (20 Ton)	1	Ea.	\$39,439	3
Exhaust Air	Roof Exhaust Fan - Large	8	Ea.	\$111,148	5
Sub Total for System		6	items	\$1,857,003	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Backflow Preventers - 2 in. (Ea.)	1	Ea.	\$3,921	3
Plumbing Fixtures	Refrigerated Drinking Fountain	5	Ea.	\$36,887	4
Building Support Plumbing System Supplementary Components	Sump Pump	1	Ea.	\$1,449	5
Sub Total for System		3	items	\$42,257	
Sub Total for Building 01 - Main Building		12	items	\$6,429,888	

Building: 02 - Press Box

Roofing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Low-Slope Roofing	Modified Bitumen	1,500	SF	\$57,042	5
Sub Total for System		1	items	\$57,042	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	4,500	SF	\$29,733	2
Sub Total for System		1	items	\$29,733	
Sub Total for Building 02 - Press Box		2	items	\$86,775	

Building: 03 - Field Storage

Roofing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Steep Slope Roofing	Composition Shingle	700	SF	\$19,965	5
Sub Total for System		1	items	\$19,965	

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Exterior Painting - Bldg SF basis	700	SF	\$9,317	5
Sub Total for System		1	items	\$9,317	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	700	SF	\$4,625	5
Sub Total for System		1	items	\$4,625	
Sub Total for Building 03 - Field Storage		3	items	\$33,907	



Building: 04 - Field Storage

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Exterior Painting - Bldg SF basis	300	SF	\$3,993	5
Exterior Utility Doors	Overhead	1	Door	\$36,792	5
		Sub Total for System		\$40,785	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	300	SF	\$1,982	5
		Sub Total for System		\$1,982	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Light Fixtures (Bldg SF)	300	SF	\$1,783	5
		Sub Total for System		\$1,783	
		Sub Total for Building 04 - Field Storage		\$44,550	

Building: 05 - Storage

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Exterior Painting - Bldg SF basis	600	SF	\$7,986	5
		Sub Total for System		\$7,986	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	600	SF	\$3,964	5
		Sub Total for System		\$3,964	
		Sub Total for Building 05 - Storage		\$11,950	
		Total for: Barrington High School		\$6,607,069	



Supporting Photos



Site Aerial



Site - Tennis Court



Building 03 - Field Storage



Main Building - Corroded Janitor Sink



Facility Condition Assessment

Barrington - Barrington High School



Building 03 - Soffit Damage



Main Building - Broken Water Cooler



Main Building - Roof Exhausts



Main Building - Damaged Insulation



Main Building - Water Cooler



Main Building - Transfer Switch



Facility Condition Assessment

Barrington - Barrington High School



Main Building - Abandoned Incinerator



Site - Marquee



Main Building - Transfer Switch



Main Building - Curling VCT



Building 04 - Secondary Field Storage



Main Building - Science Classroom



Facility Condition Assessment

Barrington - Barrington High School



Main Building - Music Room



Main Building - Damaged Building Mounted Lighting



Main Building - Damaged Building Mounted Lighting



Main Building - Restroom Sinks



Main Building - Mechanical Room



Main Building - Distribution Panel



Facility Condition Assessment

Barrington - Barrington High School



Main Building - Electric Panel



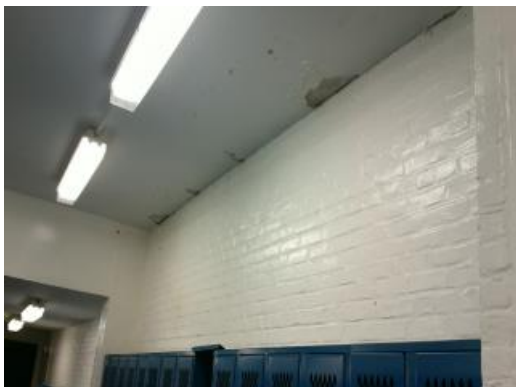
Main Building - Electric Panel



Main Building - Auditorium



Main Building - Sloped Roof



Main Building - Damaged Plaster Ceiling



Building 02 - Bleachers



Facility Condition Assessment

Barrington - Barrington High School



Main Building - Wood Shop



Main Building - Unit Ventilators



Main Building - Front Elevation



Building 05 - Vacant Storage



Main Building - Typical Classroom



Building 02 - Stadium Elevation



Facility Condition Assessment

Barrington - Barrington High School



Main Building - Main Entry



Main Building - Language Lab



Main Building - Flat Roof



Main Building - Library



Main Building - Concrete Walk



Main Building - Cafeteria



Facility Condition Assessment

Barrington - Barrington High School



Main Building - Backflow Preventer